AIS Lake Survey Record

Surveyor(s): Andrea Forlengo & Scott Smith
Date: 7/18/10
Time on survey: 3:15 pm - 4:15 pm

Lake: Crystal Lake
Township: 47 N
Range: 36 W
Section: 1

Weather: Overcast, still

Boat launch description/condition: Sandy launch area 20 ft from the water level with dry mud between.

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

Survey area description (also sketch on topo map): Surveyed lake shore as well as we could considering the low levels. See GPS track

Water color: Colorless
Turbidity: Clear unless we disturbed the mud

AIS observed (circle ONE 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): Previous high use. Current extremely low levels make the lake unused.

Shoreline development: Sandy boat launch.

Connection to other waterbodies: Unknown

Potential for AIS establishment (low, medium, high, why, likely invaders): Low for target species because of low use.

Do you think an annual AIS check is needed or could the interval be less frequent? Less frequent unless level should be checked.

Explain

Ottawa NF Ecology Team 3/2010
LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea Corpdlugo & Scott Smith  Date 7/18/10  Time on survey 3:15 pm - 4:15 pm
Lake Crystal Lake  Township 47 N  Range 36 W  Section 1  or County Doughton

General description of lake (setting, nutrient level, obvious concerns):
Extremely low water level. Fish wages out of the water, no plants growing in the water. Fish swimming in the mud. Some plants were all growing in the mud above the water line.

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

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.

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

Specimens collected? Yes No (give to Botany staff)

Water clarity (circle one) Clear  Stained  Turbid with sediment  Turbid with algae
Dominant substrate (circle one) Mud  Sand  Rock  Gravel  Muck  Debris  Unknown  Other
Present lake level relative to average (circle one) Lower  Higher  Average  Don’t know
Aquatic flora distribution (circle one): Evenly distributed  Widely scattered  Clumped in 1-few locations (Nearshore only)
INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other None
Threats/concerns: Very low water level, could not navigate some areas.
AIS Lake Survey Record

Surveyor(s): Andrea Carpelungo & Scott Smith
Date: 7/4/10  Time on survey: 6 pm - 7 pm

Lake: Estes Lake  Township: 48 N  Range: 36 W  Section: 13

Weather: Overcast

Boat launch description/condition: Sandy/rocky - directly off the 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): Entire shoreline and crossed lake.

Water color: Clear  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): Medium/High - cabins, one camper, one row boat stored at the lake

Shoreline development: Two private cabins on the lake

Connection to other waterbodies: None seen

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

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

Explain: Several discarded warm cots in the water. The lake is being fished by individuals unlikely to be careful about introducing invasive species.

Ottawa NF Ecology Team 3/2010
Observer(s): Andrea Capolongo + Scott Smith  Date: 7/4/10  Time on survey: 6 pm - 7 pm
Lake: Estes Lake  Township: 41 S N  Range: 36 W  Section: 13  County: Houghton

General description of lake (setting, nutrient level, obvious concerns):
The tree line is 20-30 feet away from the water line. There is evidence of use at the boat launch.

Vegetation data - canopy cover (extent of entire lake occupied by layer) and species:
Floating leaved plants (< 1%)  Emergents (< ____%) at shoreline only  Submersants (< 90%) of visible lake bottom

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.

<table>
<thead>
<tr>
<th>Yellow water lily (spatterdock)</th>
<th>3-way sedge</th>
<th>Chara or nitella</th>
</tr>
</thead>
<tbody>
<tr>
<td>White water lily</td>
<td>Rush</td>
<td>Watermilfoil: Eurasian, northern</td>
</tr>
<tr>
<td>Water shield</td>
<td>Wild rice</td>
<td>Variable-leaf, other</td>
</tr>
<tr>
<td>Bur-reed</td>
<td>Water horsetail</td>
<td>Coontail</td>
</tr>
<tr>
<td>Pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other</td>
<td>Arrowhead</td>
<td>Water buttercup</td>
</tr>
<tr>
<td>Duckweed</td>
<td>Iris</td>
<td>Bladderwort</td>
</tr>
<tr>
<td>Water knotweed</td>
<td>Cat-tail</td>
<td>Elodea (waterweed)</td>
</tr>
<tr>
<td>Water starwort</td>
<td>Wild calla</td>
<td>Pondweed: CLP, robbins, small, clasping, flatstem, other</td>
</tr>
<tr>
<td></td>
<td>Pickerel weed</td>
<td>Naiad</td>
</tr>
</tbody>
</table>

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: Several warm cartons in the water
AIS Lake Survey Record

Surveyor(s): Andrea Carpelongo & Scott Smith  Date: 8/1/10  Time on survey: 6:15 pm - 7:15 pm
Lake: Isle Lake  Township: 46 N  Range: 3.6 W  Section: 2

Weather: Overcast, still

Boat launch description/condition: Good condition, new rocks recently placed.

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 - maybe slightly low

Survey area description (also sketch on topo map): Surveyed shoreline and crossed lake, see GPS track.

Water color: Stained  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 (circle one): Low  Medium  High  Type

Shoreline development: None

Connection to other waterbodies: Glacier Lake

Potential for AIS establishment (low, medium, high, why, likely invaders): Low

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

Explain: Access to the lake is somewhat limited and there is no way to launch a motorized boat.
Observer(s): Andrea Cospolongo, Scott Smith 
Date: 8/11/10 
Time on survey: 6:15 pm - 7:15 pm 
Lake: Clare Lake 
Township: 46 N 
Range: 36 W 
Section: 2 
or County: Iron

General description of lake (setting, nutrient level, obvious concerns):
There is an active beaver dam.

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

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

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.

D yellow water lily (spatterdock) 
C white water lily 
C water shield 
C bur-reed 
C pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other 
D duckweed 
__ water knotweed 
__ water starwort 
__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ 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AIS Lake Survey Record

Surveyor(s) Scott Smith and Andrea Corpolongo
Date 7/18/10  Time on survey 6:45-8:30
Lake Glitter Lake  Township 46 N Range 36 W Section 2
Weather Sunny, light breeze

Boat launch description/condition Canoe launch stabilized with birch, some logs are loose.

Dominant substrate (circle one) Mud Sand Rock Gravel 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) Surveyed entire lake shore and crossed

Water color None  Turbidity Clear

AIS observed circle NONO 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) Medium use, canoe only

Shoreline development None other than launch

Connection to other waterbodies Unknown

Potential for AIS establishment (low, medium, high, why, likely invaders) Medium, canoe use only

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

Explain there is a loon present on the lake
LAKE FLORA QUICK CHECK CARD

Observer(s): Andrea Copelando & Scott Smith  Date: 7/18  Time on survey: 6:45 - 8:30
Lake: G. Her Lake  Township: 46 N  Range: 36 W  Section: 2  or County: Iron

General description of lake (setting, nutrient level, obvious concerns):
There is a boom present on the lake, gara frogs, muskats, and many large clams.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:
Floating leaved plants (5%)  Emergents (5%)  Submergents (80%)
in visible depths

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.
C. yellow water lily (spatterdock)  ___ 3-way sedge
D. white water lily
T. water shield
I. bur-reed
___ pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other
___ duckweed
___ water knotweed
___ water starwort

---

B. chara or nitella
I. watermilfoil: Eurasian, northern variable-leaf, other
___ coontail
___ water buttercup
T. bladderwort
___ elodea (waterweed)
C. pondweed: CLP, robbins, small, claspingleaf, flatstem, other
___ naiad
___ wild celery
___ pipewort
___ quillwort (Isoetes)
___ shoregrass (Littorella)
___ water lobelia
___ water bulrush
I. 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 1-2 few locations  Nearshore only
INVASIVE SPECIES SEEN  EWM  CLP  (Complete weed form)  Other: None

Threats/concerns:  No obvious concerns
AIS Lake Survey Record

Surveyor(s): Andrea Corolongo + Scott Smith
Date: 7/4/10  Time on survey: 3:15 - 4:15 pm
Lake: Irish Lake  Township: 48 N  Range: 36 W  Section: 12
Weather: Overcast, light wind

Boat launch description/condition: Very low water, boat launch area very mucky

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): Surveyed shoreline and crossed lake. See GPS track.

Water color: Stained  Turbidity: Low

AIS observed  circle: NONE  or use lines below

Species  Location (in lake)
Abundance  GPS

Sample taken (circle one): Yes  No
Species  Location (in lake)
Abundance  GPS

Sample taken (circle one): Yes  No
Species  Location (in lake)
Abundance  GPS

Sample taken (circle one): Yes  No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type): medium - there is one area where the muck was dug up for canoe access

Shoreline development: None

Connection to other waterbodies: Unknown

Potential for AIS establishment (low, medium, high, likely invaders): Difficult lake to access because of low water levels

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

Explain:

Ottawa NF Ecology Team 3/2010
LAKE FLORA QUICK CHECK CARD

Observer(s) Andrew Capolongo + Scott Smith Date 7/4/10 Time on survey 3:15 - 4:15 pm

Lake Irish Lake Township 48 N Range 36 W Section 12 or County Houghton

General description of lake (setting, nutrient level, obvious concerns):
Lake very low. In some places the water lily was growing ten feet above the water line.

Vegetation data - canopy cover (extent of entire lake occupied by layer) and species:
Floating leaved plants (15%) Emergents (2%) at shoreline only Submergents (9%) at shoreline only

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.

O yellow water lily (spatterdock) C 3-way sedge D chara or nitella
D white water lily C sedge (other than 3-way) C watermilfoil: Eurasian, northern
D water shield C rush C variable-leaf, other
O bur-reed C wild rice C coontail
D pondweed: ribbonleaf, largeleaf, C grass (other than wild rice) C water buttercup
D floatingleaf, variableleaf, other C arrowhead C bladderwort
D duckweed C spikerush C elodea (waterweed)
D water knotweed C water horsetail C pondweed: CLP, robbins, small,
D water starwort C Iris C claspingleaf, flatstem, other
D cattail C wild calla C naiad
D pickerel weed C pitcher plant C wild celery
D swampmoss moss C cranberry C pipewort
D bog rosemary C quillwort (Isoletes) C shoregrass (Littorella)
D

Specimens collected? Yes [ ] No [x] (give to Botany staff)

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

Dominant substrate (circle one) Mud Sand Rock Gravel [x] Muck Debris Unknown Other

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

Aquatic flora distribution (circle one): Evenly distributed [ ] Widely scattered [ ] Clumped in 1-2 few locations [ ] Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other None

Threats/concerns: Low water level and exposed muck.
AIS Lake Survey Record

Surveyor(s) Andrea Corpolongo + Scott Smith  
Date 8/1/10  
Time on survey 3:15 pm - 4:30 pm

Lake Kinze Lake  
Township 47 N  Range 35 W  Section 30

Weather Overcast, still

Boat launch description/condition Canoe launch in good shape. There is a big drop down before the launch so there is no possible drive down.

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) Survey lake shore and crossed lake. See

GPS track

Water color Stained  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) High, one rowboat “parked” at edge

Shoreline development Near road, a lot of traffic

Connection to other waterbodies Unknown

Potential for AIS establishment (low, medium, high, why, likely invaders) Medium, more traffic than some of the less accessible lakes, probably visited by fishermen checking out lakes.

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

Explain Something could be introduced but the lake is healthy.

Ottawa NF Ecology Team 3/2010
LAKE FLORA QUICK CHECK CARD

Observer(s) Andrea Corpugno + Scott Smith Date 8/1/10 Time on survey 3:15 pm - 4:30 pm
Lake Kunze Lake Township 47 N Range 35 W Section 30 or County Houghton

General description of lake (setting, nutrient level, obvious concerns):
The lake is mostly open. There is a lot of painted turtles.

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

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.

- yellow water lily (spatterdock)
- white water lily
- water shield
- bur-reed
- pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other
- duckweed
- water knotweed
- water starwort
- ______________________
- ______________________
- ______________________
- ______________________

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 areas sandy
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 1-2 few locations Nearshore only
INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other none
Threats/concerns: No particular concerns.
AIS Lake Survey Record

Surveyor(s): Andrea Cerpelano and Scott Smith
Date: 7/18
Time on survey: 4:45 - 6:00

Lake: Lower Dam
Township: 47 N
Range: 36 W
Section: 22

Weather: Sunny, still

Boat launch description/condition: No real launch - we launched near the 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): Surveyed shoreline and crossed the lake

Water color: Stained
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): Medium/High
Men fishing on shore during survey - at least two.

Shoreline development: A moved area

Connection to other waterbodies:
Dammed section of Ottawa River

Potential for AIS establishment (low, medium, high, why, likely invaders): It would be a good area for CLP or EWM but I don't think there is a big risk of introduction.

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

Explain

Ottawa NF Ecology Team 3/2010
Observer(s): Andrea Corpuz | Date: 7/18 | Time on survey: 4:15 - 6:00 pm
Lake: Lower Dam | Township: 47 N | Range: 36 W | Section: 22 | County: Houghton

General description of lake (setting, nutrient level, obvious concerns):
Alder and eagle are at water's edge. The E. deca is very thick at the inlet.

Vegetation data - canopy cover (extent of entire lake occupied by layer) and species:
Floating leaved plants (10%) | Emergents (10%) | Submergents (20%)

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

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

Specimens collected? Yes [ ] (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 1-2 locations [ ] Nearshore only
INVASIVE SPECIES SEEN: EWM CLP (Complete weed form) Other [ ]
Threats/concerns: No real concerns [ ]
AIS Lake Survey Record

Surveyor(s): Andrea Corolongo + Scott Smith
Date: 9/5/10 Time on survey: 6:15 pm - 7:00pm

Lake: Misty Lake Township: 45 N Range: 41 W Section: 31

Weather: Sunny, clear, light breeze

Boat launch description/condition: Dirt, motor boat accessible

Dominant substrate (circle one): Mud Sand Rock Gravel 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): Entire shoreline and crossed lake

Water color: Stained - very dark 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): medium, fishing
Shoreline development: Near road - large dirt boat ramp
Connection to other waterbodies: Unknown

Potential for AIS establishment (low, medium, high, why, likely invaders): medium/high - obviously fisherd, and relatively warm, know swim sites (I think) though this lake has very little plant growth.
Do you think an annual AIS check is needed or could the interval be less frequent? less frequent

Explain:

Ottawa NF Ecology Team 3/2010
Observer(s): Andrea Corgolnico + Scott Smith  Date: 9/5/10  Time on survey: 6:15 - 7:00 pm
Lake: Misty Lake  Township: 45 N  Range: 41 W  Section: 31  or County: Gogebic

General description of lake (setting, nutrient level, obvious concerns):
Water is very dark - stained but no sediment or algae.

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

<table>
<thead>
<tr>
<th>Floating leaved plants (%)</th>
<th>Emergents (%)</th>
<th>Submersgents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 yellow water lily (spatterdock)</td>
<td>3-way sedge</td>
<td>chara or nitella</td>
</tr>
<tr>
<td>1 white water lily</td>
<td>1 sedge (other than 3-way)</td>
<td>_watermilfoil: Eurasian, northern</td>
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<tr>
<td>water shield</td>
<td>0 rush</td>
<td>variable-leaf, other</td>
</tr>
<tr>
<td>1 bur-reed</td>
<td>0 wild rice</td>
<td>_coontail</td>
</tr>
<tr>
<td>pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other</td>
<td>0 grass (other than wild rice)</td>
<td>_water buttercup</td>
</tr>
<tr>
<td>duckweed</td>
<td>0 arrowhead</td>
<td>_bladderwort</td>
</tr>
<tr>
<td>water knotweed</td>
<td>1 water horsetail</td>
<td>_elodea (waterweed)</td>
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<tr>
<td>water starwort</td>
<td>0 iris</td>
<td>_pondweed: CLP, robbins, small,</td>
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<td>_water marigold</td>
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<td></td>
<td></td>
<td>_golden hedgehyssop</td>
</tr>
</tbody>
</table>

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 particular concerns
AIS Lake Survey Record

Surveyor(s) Andrea Corpolongo + Scott Smith

Date 8/8/10 Time on survey 2:30 pm - 3:45 pm

Lake Paulding Pond Township 46 N Range 39 W Section 15

Weather Partly Cloudy, No Wind

Boat launch description/condition Graveled, drive down 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 track

Water color Stained Turbidity Slightly turbid with sediment could not see paddle when fully submerged

AIS observed

Species Spotted Knapweed Location (in lake) Lake Shore

Abundance One stand @ .001 acres GPS N46.38493W89.17533

Sample taken (circle one) Yes (No)

Species Reed Canary Grass Location (in lake) Lake Shore

Abundance One stand @ .012 acres GPS N46.38452W89.17317

Sample taken (circle one) Yes (No)

Species Location (in lake)

Abundance GPS

Sample taken (circle one) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) Medium. Some trash, campground obviously used fishing apparent.

Shoreline development Near US Hwy 45. Small campground

Connection to other waterbodies Dammed section of Bluff Creek

Potential for AIS establishment (low, medium, high, why, likely invaders) Medium. Potential for survey species to become established.

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

Explain Paulding Pond is the least diverse of any of the lakes we have seen so far. It already has terrestrial invaders on shore. If an aquatic invasive is introduced, it may spread quickly.
Observer(s) Scott Smith and Andrea Date 8/8/10 Time on survey 2:30 pm - 3:45 pm
Lake Paulding Pond Township Corpolcono Range 46 N Section 15 or County Eaton

General description of lake (setting, nutrient level, obvious concerns):
Denuded section of bluff creek, near main road, edges with sedges Elodea
and duckweed dominant. We spotted several woodducks during the survey.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:
Floating leaved plants (30%) Emergents (____%) Submergents (99%)
at shore only

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

☐ yellow water lily (spatterdock) 3-way sedge
☐ white water lily rush
☐ water shield wild rice
☐ bur-reed arrowhead
☐ pondweed: ribbonleaf, largeleaf, spikerush
☐ floatingleaf, variableleaf, other water horsetail
☐ duckweed iris
☐ water knotweed cattail
☐ water starwort wild calla
☐ pickerel weed

Specimens collected? Yes ☐ No ☐ (give to Botany staff)

Water clarity (circle one) Clear Stained Turbid with sediment Turbid with algae - only slightly turbid
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 1-2 few locations Nearshore only
INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other Spotted knapweed and Reed Canary Grass on sun
Threats/concerns: No major concerns No aquatic invasive species
AIS Lake Survey Record

Surveyor(s) Andrea Garofalo + Scott Smith Date 6/27/10 Time on survey 12:15 pm - 3:15 pm with 6/4 pm survey

Lake Penning Township 49 N Range 36 W Section 30

Weather Overcast

Boat launch description/condition Canoe launch by campsite, Sandy. Some intro- grated plants such as white clover and wild lettuce at campsite. 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 - seemed slightly low

Survey area description (also sketch on topo map) Surveyed entire lake shore for target species including dragging a line for spiny water fleas. Crossed lake at mid point as well.

Water color Clear Turbidity Clear Bottom visible to a 8 ft

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) occasional camping and fishing - saw one broken fish

Shoreline development None

Connection to other waterbodies None Seen

Potential for AIS establishment (low, medium, high, why, likely invaders) There wasn't much activity on the lake and the nutrient level was low.

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

Explain The lake is not heavily used. There was one boat present on the lake when we arrived and it flew away when we began our survey.

Note: We didn't see the previously noted convective (by FR 1500) but we will look when we are in the area during or other surveys later in the season. - seen 8/1/10, spayed
Observer(s): Andrea Corpuzongo + Scott Smith  Date 6/27/10  Time on survey start 12:15 pm  end 3:15 pm
Lake Penney  Township 49 N  Range 36 W  Section 30  or County Houghton

General description of lake (setting, nutrient level, obvious concerns):
Spruce, White Pines, and some deciduous trees growing at water's edge. Near road, but not a lot of obvious traffic. On lake, canoe launch only. One canoe present when we arrived, many green frogs seen. Lake was oligotrophic & bog plants common on deadfall. No obvious concerns.

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

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.

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<tr>
<td>T</td>
<td>yellow water lily (spatterdock)</td>
<td>D 3-way sedge</td>
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<td></td>
<td>white water lily</td>
<td>C sedge (other than 3-way)</td>
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<td></td>
<td>water shield</td>
<td>____ rush</td>
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<td>D</td>
<td>bur-reed</td>
<td>____ wild rice</td>
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<td>pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other</td>
<td>O grass (other than wild rice)</td>
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<td>duckweed</td>
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<td>water knotweed</td>
<td>____ spikerush</td>
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<td></td>
<td>water starwort</td>
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<td>pickerel weed</td>
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</table>

Specimens collected? Yes  No (give to Botany staff)  C sphagnum moss

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  Seemed a little low
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  No invasives seen
Threats/concerns: We saw no obvious threats
AIS Lake Survey Record

Surveyor(s) Andrea Carpolongo + Scott Smith Date 9/5/10 Time on survey 3:45 - 4:45

Lake Range Lake Township 45 N Range 42 W Section 31

Weather Sunny, clear, light wind

Boat launch description/condition Drive down, dirt - could bring a motor boat out not 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) Surveyed shoreline and crossed the lake

Water color Stained Turbidity No sediment

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) There is a cut through the muck where motorboats run through the lake.

Shoreline development Small road to lake with a dirt boat launch

Connection to other waterbodies Beaver Dammed River

Potential for AIS establishment (low, medium, high, why, likely invaders) Obviously fished, near known ewn sites.

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

Explain Motor boats on the lake, near ewn sites.

Ottawa NF Ecology Team 3/2010
Observer(s) Andrea Carpobongo + Scott Smith  Date 9/5/10  Time on survey 3:45 - 4:45

Lake Range Lake  Township 4S N  Range 42 W  Section 31  or County Gogebic

General description of lake (setting, nutrient level, obvious concerns):
There is a large stand of older red pine with a few white pine near the lake. Some young hardwoods close to the shore. A lot of beaver activity and more bladderwort than I've ever seen.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:
Floating leaved plants (45 %)  Emergents (20 %)  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.

- C yellow water lily (spatterdock)
- C white water lily
- B water shield
- B bur-reed
- B pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other
- D duckweed
- D water knotweed
- D water starwort
- ____________
- ____________
- ____________
- ____________

Specimens collected? Yes (No) (give to Botany staff)

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

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

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

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

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

Threats/concerns: no specific threats
AIS Lake Survey Record

Surveyor(s) Andrea Copeland, Scott  Date 9/5/10  Time on survey 10:00 - 11:00
Lake Redboat Lake Township 46 N Range 44 W Section 35

Weather Sunny, light wind

Boat launch description/condition Asphalt launch

Dominant substrate (circle one) Mud Sand Rock Gravel 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) Surveyed lake shore and crossed lake.

See GPS track.

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) Medium - fishing

Shoreline development involved area, asphalt boat launch, one campsite

Connection to other waterbodies Unknown

Potential for AIS establishment (low, medium, high, why, likely invaders) Medium - nice boat launch, relatively near infested lakes

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

more frequent surveys would be valuable to track the invaders

Explain

Ottawa NF Ecology Team 3/2010
Lake flora quick check card

Observer(s): Red Bank Lake Date: 9/1/10 Time on survey: 10 am - 11 am

Lake: Smith Township: 46 N Range: 44 W Section: 35 or County: Greene

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

- Bog plants along shoreline, black spruce, sphagnum moss
- Tomato grass, candy corn, etc.

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

Floating leaved plants: ______%  Emergents: ______%  Submergents: ______%

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.

- Yellow water lily (spatterdock)
- White water lily
- Water shield
- Bur-reed
- Pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other
- Duckweed
- Water knotweed
- Water starwort
- ______
- ______
- ______
- ______
- ______

3-way sedge
Sedge (other than 3-way)
Rush
Wild rice
Grass (other than wild rice)
Arrowhead
Spikerush
Water horsetail
Iris
Cattail
Wild calla
Pickerel weed
O

Chara or nitella
Watermilfoil: Eurasian, northern variable-leaf
Coontail
Water buttercup
Bladderwort
Elodea (waterweed)
Pondweed: CLP, robbins, small, claspingleaf, flatstem, other
Naiad
Wild celery
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 1-2 few locations Nearshore only

Invasive species seen: EWM CLP (Complete weed form) Other

Threats/concerns: No obvious concerns
AIS Lake Survey Record

Surveyor(s) Andrea Corpuz and Scott Smith  Date 8/22/10  Time on survey 4:45 - 5:30

Lake Robbins Pond  Township 46 N Range 39 W Section 18

Weather Clear and Still

Boat launch description/condition None

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) Surveyed entire lake shore and crossed lake - see GPS track.

Water color Stained  Turbidity Clear

AIS observed circle None or use lines below

Species Location (in lake) GPS

Sample taken (circle one) Yes No

Species Location (in lake) GPS

Sample taken (circle one) Yes No

Species Location (in lake) GPS

Sample taken (circle one) Yes No

Vulnerability assessment

Apparent usage of lake (low, medium, high, type) Recreation, not much fishing - maybe duck hunting.

Campers visit the lake - saw one man with a dog on some during the survey.

Shoreline development There is a campground and a picnic area nearby.

Connection to other waterbodies

Potential for AIS establishment (low, medium, high, why, likely invaders) Not a healthy lake

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

Explain An annual survey would allow an invader to be caught before the population becomes difficult to control.
LAKE FLORA QUICK CHECK CARD

Observer(s): Andreina Corpolongo & Scott Date 8/22/10  Time on survey 4:15 pm - 5:30 pm
Lake Robins

General description of lake (setting, nutrient level, obvious concerns):
This lake is very overgrown with grasses, elodea and what was probably Scirpus subterminalis. There is a lot of dead plant material and a few dead mollusks by the shore. Saw several wood ducks - there is one area with a large (3 ft x 3 ft) but of dead elodea and other algae.

Vegetation data- canopy cover (extent of entire lake occupied by layer) and species:
Floating leaved plants (95 %)  Emergents (75 %)  Submergents (50 %)

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.

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

Specimens collected? Yes [ ] No [ ] (give to Botany staff)

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

Present lake level relative to average (circle one) Lower Higher Average Don't know
Aquatic flora distribution (circle one): Evenly distributed Widely scattered Clumped in 1-few locations Nearshore only

INVASIVE SPECIES SEEN EWM CLP (Complete weed form) Other A few scattered small patches of
Threats/concerns: feed crazy grass.
AIS Lake Survey Record

Surveyor(s) Andrea Groplongo and Scott Smith

Date 8/21/10 Time on survey 2:30 pm - 8:15 pm

Lake Tannlund Lake Township 47 N Range 39 W Section 28

Weather Clear and still

Boat launch description/condition Canoe launch, sandy/gravel

Dominant substrate (circle one) Mud Sand Rock Gravel [ ] 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) Cenched shoreline and crossed lake, see GPS track.

Water color Clear [ ] Turbidity None [ ]

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 There is a sandy/gravelly canoe launch and a mowed area with a picnic table.

Connection to other waterbodies

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

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

Explain No particular cause for concern.
Observer(s) Andrea Corpolongo  Date 8/22/10  Time on survey 2:30 pm - 3:15 pm
Lake Tanund Lake  Township 47 N  Range 39 W  Section 28 or County Ontogon

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

Edged by sedges, tree line currently 20-30 ft from shore. Water very clear - not stained, a lot of boxwood at shore line, recent ant mating flight - many flying droves, some jewelweed & rush at shoreline. Saw several painted turtles and bass.

Vegetation data - canopy cover (extent of entire lake occupied by layer) and species:
Floating leaved plants (4%)  Emergents (%)  Submergents (85%)

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.

D  yellow water lily (spatterdock)
O  white water lily
O  water shield
O  bur-reed
O  pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other
O  duckweed
O  water knotweed
O  water starwort
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AIS Lake Survey Record

Surveyor(s) Andrea Corpolongo + Scott Smith  Date 9/15/10  Time on survey 12:45 - 1:45 pm
Lake Thrush Lake  Township 45 N Range 44 W Section 3
Weather Sunny, clear, light wind

Boat launch description/condition  Asphalt, easy access, one campsite

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)  Surveyed entire shoreline and crossed lake.

Water color  Slightly stained  Turbidity  Clear

AIS observed  circle \textbf{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)  Three people stopped during our one hour survey. There was a string of bluegill in the lake & several boat containers.

Shoreline development  Boat launch and one campsite.

Connection to other waterbodies  Unknown

Potential for AIS establishment (low, medium, high) why, likely invaders  Heavy use and near infected lakes - good site for sun or cLP.

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

Explain

Ottawa NF Ecology Team 3/2010
Observer(s) Andrea Capolongo & Scott Date 9/5/10 Time on survey 12:45 - 1:45 pm
Lake Thrush Lake Township 45 N Range 44 W Section 3 or County Cooshecic

General description of lake (setting, nutrient level, obvious concerns):
The lake was ringed by long plants. There was a thin layer of mud over
rocks, then it drops off quickly. There is minimal aquatic plants other than
very near the shoreline.

Vegetation data - canopy cover (extent of entire lake occupied by layer) and species: near shore only.
Floating leaved plants (______%) Emergents (______%) Submergents (______%)

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.

- yellow water lily (spatterdock)
- white water lily
- water shield
- bur-reed
- pondweed: ribbonleaf, largeleaf, floatingleaf, variableleaf, other
- duckweed
- water knotweed
- water starwort
- ...........................................................
- ...........................................................
- ...........................................................

- 3-way sedge
- sedge (other than 3-way)
- rush
- wild rice
- grass (other than wild rice)
- arrowhead
- spike rush
- water horsetail
- iris
- cattail
- wild calla
- pickerel weed
- ...........................................................
- ...........................................................
- ...........................................................

- chara or nitella
- watermilfoil: Eurasian, northern
- variable-leaf, other
- coontail
- water buttercup
- bladderwort
- elodea (waterweed)
- pondweed: CLP, robbins, small, claspingleaf, flatstem, other
- naiad
- wild celery
- pipewort
- quillwort (Isoetes)
- shoregrass (Littorella)
- water lobelia
- water burly
- water marigold
- golden hegedhyssop
- ...........................................................
- ...........................................................
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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 specific concerns - more traffic than any other lake we
surveyed, though it was labor day weekend.