

Eurasian Water Milfoil (EWM) by the numbers

Arrived in North America in the 1940's;

Present in Lac Quenouille, in an invasive manner, since ~2012;

Origin: Europe, Asia, North Africa;

Grows in a depth of 0.5 to 4.5 meters;

Mechanism of spread:

Human Activities: fishing, water sports, swimming, pedal-boats, canoes ...

PROPERTIES AND EFFECT ON THE ENVIRONMENT:

- Highly invasive plant that DESTROYS and replaces native plants;
- EWM is HARMFUL to aquatic life, it can destroy fish spawning grounds;
- High consumption of oxygen; due to its density, it keeps sediment suspended, including phosphorus, leading to progressive DECREASE of WATER QUALITY;
- REPRODUCTION by seeds, but especially by fragmentation (cutting), with pieces easily implanted in the ground.



Lac Quenouille by the numbers

239 properties around the lake, of which 75 have no building on the property;

3 municipalities:

Ste Agathe Nord 8 %

Lac Supérieur 42 %

Val Des Lacs 50 %

Depth of the lake: average 3.3 meters, maximal depth 19.1 meters;

Area of invasion by EWM:

2013 study: 110 plants reported

2015 Characterization:

High density, solo species:

Baie Charron: 34,400 m²

Baie creuse: 9,440 m²

Mixed species: 6,160 m²

TOTAL: 50 000 m²

PROPERTIES and EFFECTS ON HUMAN ACTIVITY:

- Altered visual appearance;
- It can become **IMPOSSIBLE** to navigate through contaminated areas because it is too dense;
- **END OF ACTIVITIES:** fishing, swimming, sailing, water skiing ...;
- **LOSS** of enjoyment of the lake;
- **LOSS** of property values, difficult resale.

Steps to control EWM

1. **Characterisation** of aquatic life of lac Quenouille: **DONE**, Aug/2015;
2. **Ask for / obtain municipalities' assertion/resolution** that placing jute textile does not countervene municipal laws / rules.
3. **Apply for permit** to place jute membrane, from the Ministry of Sustainable Development, Environment and Climate Change (MDDELCC), Ministry of Forests, Wildlife and Parks;
4. **Obtain the permit** (~ 60 days);
5. **Obtain / raise funds** for project;
6. **Laying the jute: 2016.**

Approach to Problem:

- Placement of buoys to limit circulation / navigation in areas infested with EWM
- Placement of a jute membrane
 - Biodegradable membrane placed over the EWM plants, held in place by sand bags;
 - Studies by a university scientist in Ireland (2009-13): of 92 infested hectares, only 9,7 hectares remained so after 5 years;
 - Tested in Lac Pémichangan, in the Outaouais, by ABV des 7 (2012-14): of 6,000 m² of total infested area, average eradication of 87% , with up to 95% in some areas;
 - Return of indigenous plants

Sources: Master Plan and Report by ABV des 7