

ENVIRONMENT

of our lakes and rivers



Regroupement des lacs et cours
d'eau de Sainte-Marguerite – Estérel

WHAT TO KNOW
WHAT TO DO
WHAT TO AVOID

Introduction

Without human interference lakes and rivers take eons to deteriorate. However with human interaction this phenomena can happen rapidly, sometimes within 10 years.

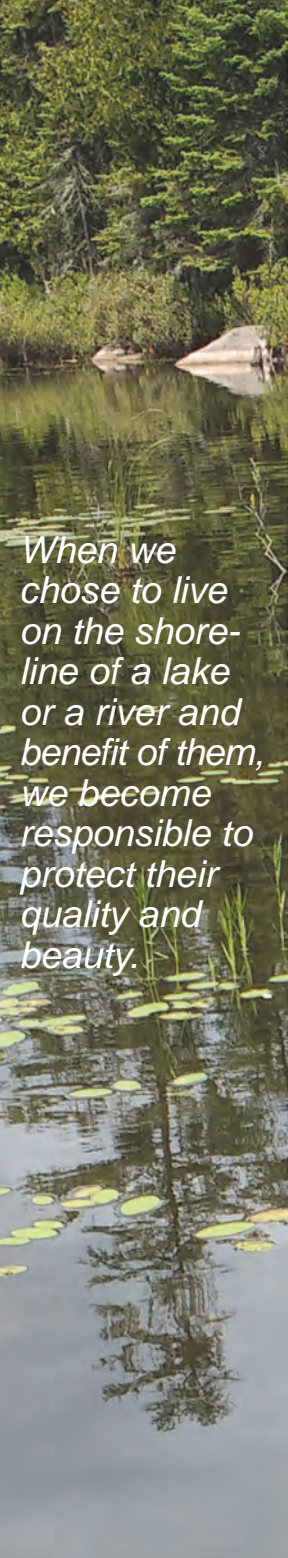
Lakes and rivers absorb phosphorus and nitrogen naturally to nourish plants and algae. Unfortunately, some human activities accelerate this process and change the equilibrium of those ecosystems by adding more nutrients than needed.

The aim of this brochure is to make you appreciate that some of our habits can be destructive and to demonstrate how to safely interact with our shorelines, lakes and rivers so that future generations can still enjoy good water quality.

When we choose to live near a lake or a river we are responsible to safely preserve their integrity by acting according to environmental principles.

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When we chose to live on the shoreline of a lake or a river and benefit of them, we become responsible to protect their quality and beauty.

1

Quality of life

WHAT TO KNOW

Our lakes and rivers provide us with an oasis of peace and beauty. To maintain these oasis we must all act to protect this privilege. Visual and sonic pollution must be prohibited to ensure that all neighbors enjoy their stay. Many residents depend on our lakes and rivers for their daily water supply, so we must protect it.

WHAT TO DO

Respect the peace and quiet :

Sounds travel far and fast on a lake.

Reduce outside lighting :

Redirect lighting to the ground.

Respect the privacy of your neighbours :

Do not use a drone above private property.

Be ecofriendly :

- Chose colours that don't clash with the natural surroundings.
- Use the ecocenter for disposing of building materials waste.

FORBIDDEN

Produce disturbing noise according to regulations :

Lawn mower, chains saws, drones, music, barking dogs, ...

Lighting a fire without the proper permit : Contact your municipality..

Lighting a fire when SOPFEU risk of fire index is HIGH, VERY HIGH or EXTREME.

Burn toxic waste :

Building material, plastics, domestic waste, tires, etc.

Use firecrackers without a permit from the fire department of your municipality.



2

Tree cutting



WHAT TO KNOW

For all tree cutting projects it is **MANDATORY** to have a permit from your municipality.

We all know the benefits of trees in our ecosystem. They purify the air, protect us from heat and wind and help to maintain soil integrity. A dead tree is also useful as it provides shelter for wild life and insects..

If for some reason you must cut down a tree, either for safety or esthetic reasons, you must **speak to your municipality for regulations and permits**. Doing so will prevent fines and conflicts.

WHAT TO DO

Keep leaves, branches and trunks on the ground as they transform into humus and nutrients that nourish the soil.

Cut down a tree that interferes with the growth of neighbouring trees.

Cut down sick trees and eliminate branches and trunks.

Replant indigenous species in open spaces.



Be safe

- Consult an expert in tree cutting instead of putting your and others' safety in jeopardy.
- Always contact your municipality for a permit.
- Remember that some periods are more appropriate to cut hedges and shrubs.
- Contact Hydro if a tree is near or touching power lines.

WHAT TO AVOID

Clear large spaces even with a permit.

Interfere with the growth of a tree by pruning it excessively.

Cut down a dead tree.

Pruning more than 20% of healthy branches.



Sceptic installation

WHAT TO KNOW

Well-maintained installations are crucial to the health of lakes and rivers. Bacterial contamination and overflow of phosphors are problems that can be managed by regular inspection of these installations.

A system made for 3 bedrooms cannot deal with more than 1620 liters of water on a 24hour period. Otherwise bacteria cannot properly manage the excess of waste water so you have to be careful when you have many visitors.

CAA Québec produced an estimate of water consumption:

Activity	Water consumption
5 minutes shower	75 liters
Bath	150 liters
Dish washer Older model Energy Star ^{MD}	40 liters 20 liters or less
Toilet flush Traditional model Reduced consommation Double flush	20 liters 6 liters 3 and 6 liters
Washing machine Top loading Front load	150 liters per load 70 à 90 liters per load

To unclog your pipes, use :

- 1 cup of baking soda
- 1 cup salt
- ½ cup of white vinegar
- 1 liter of boiling water

Pour 1/4 cup of dry ingredients in the drain, add the vinegar, let sit for 10 minutes then pour in the hot water. Repeat if necessary.

WHAT TO DO

Have a certified company empty your septic tank every 2 years for permanent resident or every 4 years for vacationing population . This is mandatory by municipal and provincial regulations.

Check for overflow : white crystals on the ground, soft or spongy soil, bad odors.

Contract with a maintenance provider such as Ecoflow, Bionest, Enviro Sceptic models and follow manufacturer's annual recommendations.

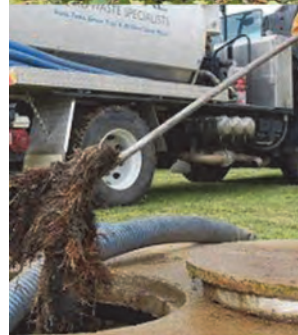
Dispose of dangerous domestic waste, *such* as paint and thinners at your city's ecocenter.

Try to disperse washing machine use throughout the day, not all at once. Favor short cycles.

Try to replace appliances with reduced consumption ones (toilet, shower, bath, dishwasher, washing machine).

Use low phosphate ecologic products such as HE soap and shampoo.

Dispose of leftover food and waste in your compost bin and do not use a grinder.



WHAT TO AVOID

Park a heavy vehicle (VTT, car or similar vehicles) **over your drainage field** or Ecoflo.

Dispose of facial tissues, condoms, feminine products, baby wipes, hair, dental floss, adhesive bandages or other non degradable products **in the toilet**.

Dispose of cooking grease, dressing and others **in the kitchen sink**.

Dispose of paint, thinners or other dangerous waste in the kitchen sink. They will damage your septic system.

Wash dishes or do laundry in half full machine loads and use too much soap.

Use commercial drain cleaners since they are damaging to the environment.

Use Javel water containing chlorine.

WHY USE
GLOVES, MASK
BOOTS AND LONG
SLEEVES?

*IT'S REALLY
DANGEROUS !*

4

Fertilizers and pesticides

WHAT TO KNOW

Sooner or later, fertilizers use on our lawn find their way into the water by percolation or drainage. In the long run the excess nitrogen will contribute to excessive growth of plant and algae in our lakes and rivers, accelerating the aging process. **Even compost or organic fertilizer are damaging.**

1 kg of fertilizer contributes to produce 500 kg of aquatic plants!

Pesticides and fertilizers are generally forbidden on all the municipal territories such as are fungicides, insecticides and other biocides. Consult your city regulations.

All fertilizers, including organic ones, are especially **forbidden** on the shore line of any lake or river.

Natural herbicide

- 100 g of salt
- 1 liter of white vinegar
- Few drops of phosphate-free dish washing liquid

Spray weeds in full sun. When the leaves are yellow just pull them out.

THE ADVERTISEMENT SAYS : " ENVIRONMENTALLY FRIENDLY ! "

WHAT TO DO

Mix compost with soil in your garden.

Leave cut grass on the lawn and do not use fertilizers.

Compost fallen leaves in the fall.



WHAT TO AVOID

Use too much compost.

Avoid stagnant water as it is a breeding ground for biting insects.

Do not stack cut wood too near to the house to prevent rats, ants and rodent from proliferating.

GREEN ALGAE :
WHY?

FERTILIZERS,

PHOSPHATES FOR
GREENER GRASS...

WOULD YOU
DRINK IT ?

Natural, free and efficient fertilizer



REALLY ?

5

Shoreline

WHAT TO KNOW

The zone along the shoreline of any lake or river is protected. It varies from 10 to 15 meters depending on the slope and the maximum water level. The zone marks the transition from water to ground and is mainly herbs, shrubs and indigenous plants (see Figure 1). They form a **protective barrier** that must not be disturbed.

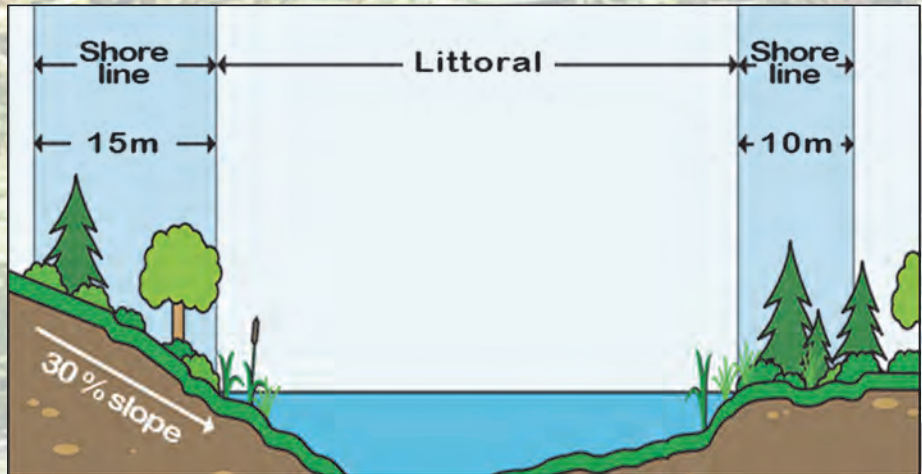
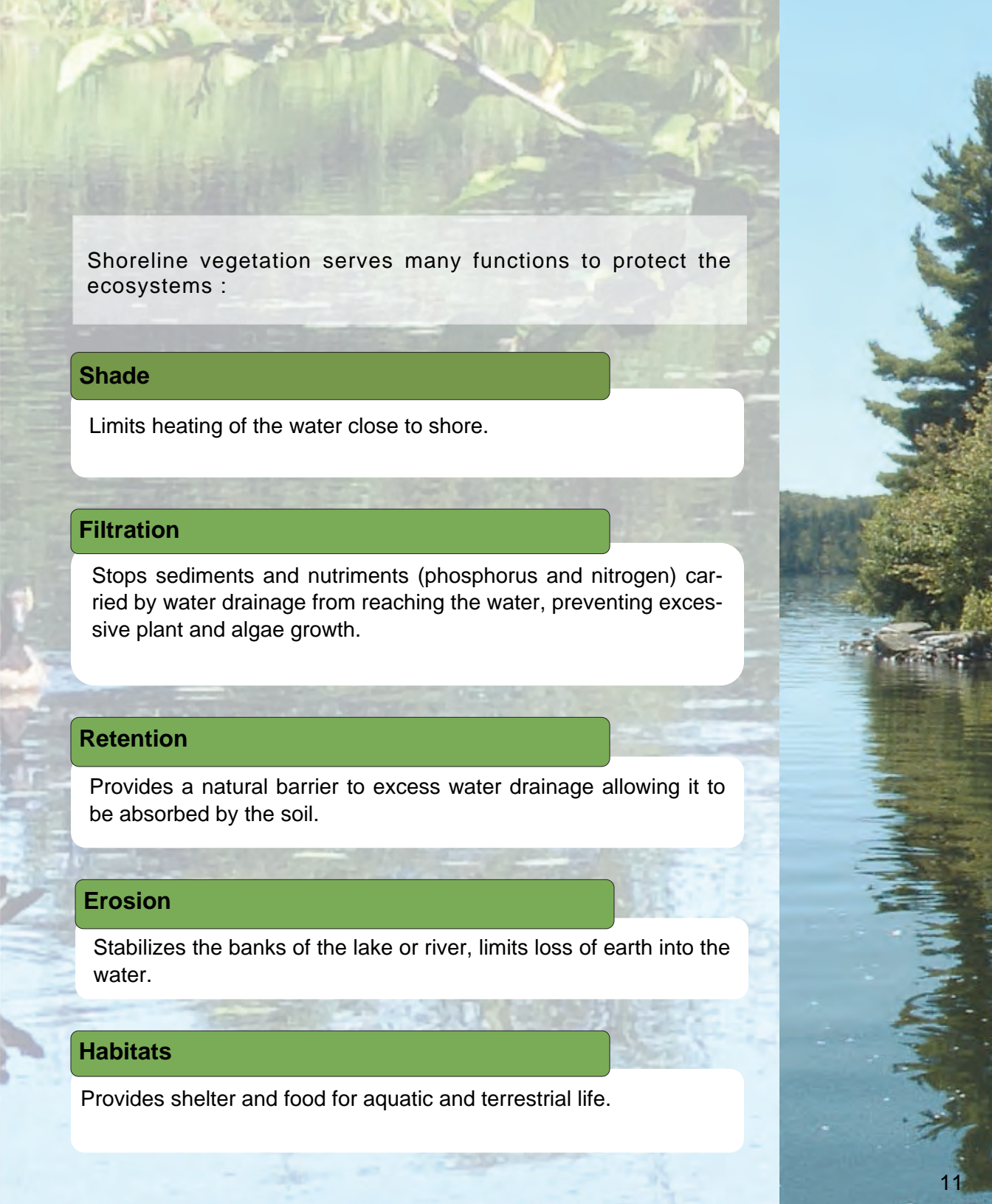


Figure 1 – Source: CRE Laurentides, Shoreline 2013

According to the policy on shoreline protection, littoral and floodable grounds "the high water line is located naturally where most plants transition from aquatic to ground cover, or if there are no aquatic plants, where the shore plants stop in direction to the water cover".



Shoreline vegetation serves many functions to protect the ecosystems :

Shade

Limits heating of the water close to shore.

Filtration

Stops sediments and nutrients (phosphorus and nitrogen) carried by water drainage from reaching the water, preventing excessive plant and algae growth.

Retention

Provides a natural barrier to excess water drainage allowing it to be absorbed by the soil.

Erosion

Stabilizes the banks of the lake or river, limits loss of earth into the water.

Habitats

Provides shelter and food for aquatic and terrestrial life.

WHAT TO KNOW

In absence of vegetation in the shoreline and riverbank protection zone, **regeneration** is **MANDATORY**.

It is **PROHIBITED** to **control the growth of vegetation** in that zone: such as grass cutting, tree cutting, using geotextile or mulch and fertilizer.

Any work in the shoreline protection zone must be in conformity with city regulations and laws.

WHAT TO DO

Let trees, shrubs and plants grow uninhibited.

Prepare an irregular pathway to the lake or river if you want access to it. Limit it to a maximum of 1,5 or 5 m wide to the river bank according to city regulations.

Do revitalize the bank and shoreline by planting indigenous plants (refer to city regulations).

Avoid artificial landscaping on your lawn (asphalt, concrete, interlocking brick or other) that carry pollutants to the lake or river by water drainage.

Inform your municipality of any work in the shoreline.



WHAT TO AVOID

Control growth of vegetation. Any kind of fertilizer, even organic, is forbidden in the shoreline, as per municipal regulation.

Build a **straight pathway** to the water.

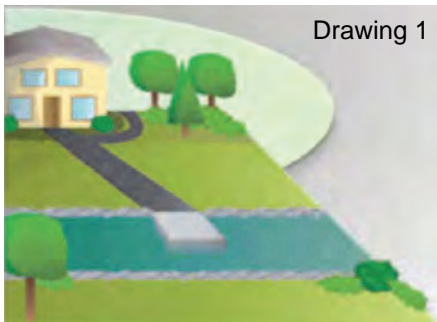


Nature takes care of itself better than we can !

GAME

- Try to find 8 mistakes in the drawings below.
- Which one do you think is more respectful of the environment?

Answers : Drawing 2



6

Docks

WHAT TO KNOW

Only one dock per property is allowed on a lot on the lake or river. In Sainte-Marguerite, the dimensions must not be over 20 m² beyond the access way. Exceptionally on lac Masson, as well as on all Estérel lakes a 41 m² dock, including the access way is allowed.

To install or expand a dock, a city permit is required. The city will inform you what norms are currently in force.

WHAT TO DO

Do prefer floating docks or on piles, which will allow the flow of the water.

Do use non toxic material for floats but rather floating supports that are safer, inert and more durable.

Do not work on the bank in any way without a city permit and directions to protect it (speak to your city for regulations).

WHAT TO AVOID

Sand, stain, wash or paint your dock above water.

Use polystyrene for floats.

Use excessive lighting on the dock (solar or electric).

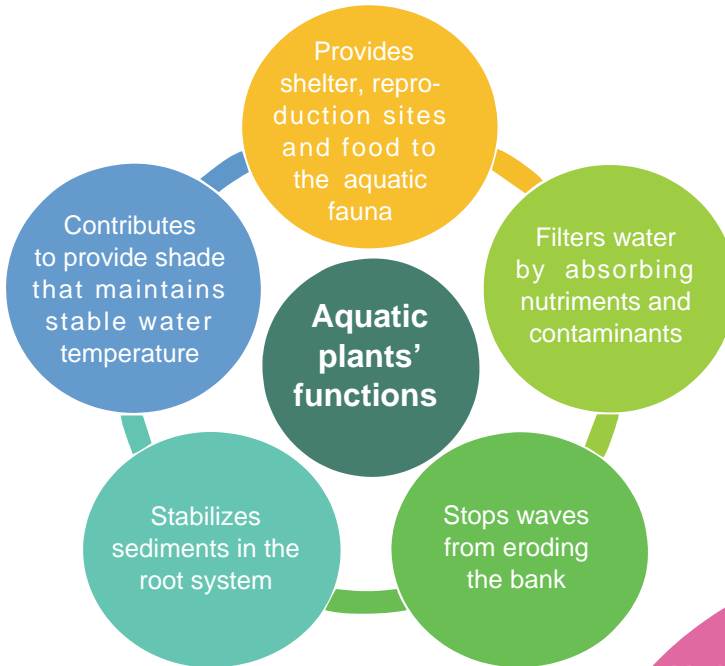
INFO

The shore is a municipal jurisdiction, the bottom of the lake or river is provincial or private and navigation is a federal jurisdiction. Consult before doing and get the applicable permits.

Aquatic Exotic Invasive Plants

7

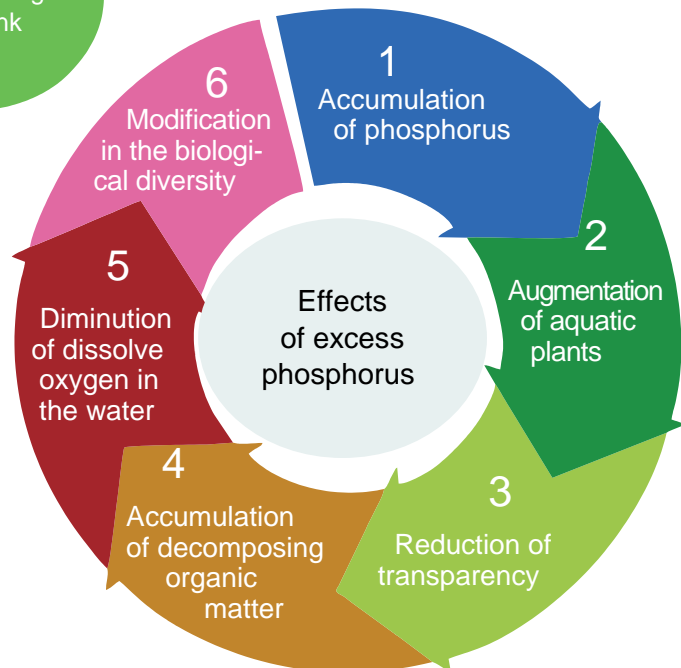
Aquatic plants are often associated with the decline of a lake or river. However the plants do occupy an important role in the ecosystem.



Equilibrium of this system is fragile and it is up to us to protect it by good environmental practices and prevent the appearance of exotic invasive species or cyanobacteria (blue algae).

A simple and insignificant action can lead to phosphorus accumulation and to modifications in the equilibrium of aquatic life.

Effect of excess phosphorus
Source : CRE Laurentides,
phosphorus capsule 2013



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AEIP

WHAT TO KNOW

When an **aquatic** plant is found outside its natural environment it is qualified as **exotic** and without predators it is classified as **invasive** therefore creating a threat to the environment. Activities such as canoeing, fishing and bathing become compromised, having a negative effect on tourism and property values.

Eurasian water mil-foil is a plant that is particularly concerning and is already found in about 40 lakes in the Laurentians in 2019. Also in its report "Détection et identification des plantes aquatiques exotiques et indigènes dans les plants d'eau des Laurentides" CRE (Council for the environment) des Laurentides found three other species of **Aquatic Exotic Invasive Plants (AEIP)**.

None of those **AEIS** were found in our territory's lakes and rivers. However, we must be careful not to accidentally introduce them in our lakes and rivers. Prevention is the only tool that can avoid this problem. Be sure to carefully check, empty, wash and dry all of your equipment that was in contact with water before introducing it on a new lake or river.

You can find a repertory of all **AEIP** on the **Conseil Québécois des espèces exotiques envahissantes** web site :

http://vecteurs.cqeee.org/?page_id=1077

If you think you have spotted an **AEIP** in your lake or river you must inform your municipality or RDL :

regroupementdeslacs@gmail.com.

Alternatively, report it on the ministry web site in the **SENTI-NELLE** section created by the ministry of the environment and climatic changes (MELCC):

<https://www.pub.mdefp.gouv.qc.ca/scc/catalogue/consultatercatalogue.aspx>.

Here is an example of indigenous aquatic plants.

AEIP IN THE LAURENTIANS IN 2018



1. Eurasian water mil-foil



2. Water soldier



3. European frogbite



4. Water chesnut



7

AEIP

WHAT TO DO

Leave the bottom of the lake or river as undisturbed as possible.

You must get a permit from the provincial government for all work in a lake or river.

If you observe suspect unknown aquatic plants, please inform your municipality or RDL, or report them in the Sentinelle tool.

You must inspect and clean all aquatic equipment before and after use on a lake or a river. Mandatory attestation on certain lakes.

Manage erosion and run off and reduce impervious surfaces to prevent accumulation of nutrients in the water.

WHAT TO AVOID

Scrape the bottom of a lake or riverbank.

Pull out water plants.

Introduce exotic plants from an aquarium, ponds, artificial basins or others sites on or near the water.

Discharge used water or any of material in the water.

Build or manage a private access to a lake or river even if it's naturally there by adding materials such as sand, gravel or any other filler.

INFO

Also called blue-green algae, cyanobacteria have been around for 3 billions years. As such they are inoffensive. Phosphorus surplus in the environment accelerate their envelopment, creating water flowers on the surface that can be a public health risk.

You can learn more about those by consulting the guide made by MELCC.



Blue-green algae,
cyanobacteria

Fishing ⑧



WHAT TO KNOW

Fishing is an enjoyable activity practiced by many so be sure to abide by the rules and regulations that control it. Also be aware of other water activities that surrounds you.

You must have a permit, respect quotas and practice safe catch and release. You should consult **the guide on fishing regulations in Quebec** for zone 9. It provides information on the length of the season, the number and size of catch allowed for each species and time schedule for your favorite activity.

You must not use live bait that can reproduce in water.

As we fear introducing aquatic exotic invasive plants, we must also extend that concern to other live species. **If you catch or notice unknown or non indigenous fish species** you should contact your municipality, RDL or the SENTINELLE tool.

WHAT TO DO

Clean and inspect your boat before going on a lake or river.

Fish away from swimmers and divers.

Keep quiet, especially early in the morning and sunset.

If you practice catch and release **make sure the fish is well enough to survive** before releasing it.

WHAT TO AVOID

Using live bait other than worms.

Cross lines with other fishermen.

Dispose of waste (food, bait...) **in the water.** A lake or river is not a toilet or a dump.

Clean the inside of you catch over water, do it at home.

Dispose of live exotic species in a lake or river.

WHAT TO KNOW

You are responsible for your security and your family's and guests'. You should ensure that everyone can enjoy water activities and safety by respecting the environmental, municipal, provincial and federal regulations.

Boats with gas engines are forbidden on many bodies of water.

Here are a few basic guidelines:

- **Keep a safe distance** between crafts.
- **Wear flotation devices** for you and all those aboard.
- **Have your boating permit** (if required) and **mandatory security equipment** on-board.
- **Do not throw anything overboard**, a lake or river is not a dump, nor a toilet, for you or your guests.
- With motor boats, try to avoid causing **bank erosion by producing waves**. Everyone is responsible for the waves that they produce and the damage they cause.
- **Use non polluting motors** where allowed (electric and 4 cycles motors are less polluting).
- **Make yourself visible** when in or on water.

Security equipment



Calm morning summer day ...

WHAT TO DO

Navigate inside corridors reserved to your nautical activity, and if applicable, empty ballasts outside these areas.

Do prioritize non-motorized activities.

Reduce speed of you craft near the shore, in shallow water and on small lakes.

Inspect, empty, clean and dry you boat when moving from a body of water to another to avoid introduction of exotic species.

Safely store gray and used water from you boat and dispose of it and other waste, adequately.

WHAT TO AVOID

Going through aquatic plants or nesting areas with you craft.

Overloading you craft.

Wake-boarding as it causes too much damage to environment.

Creating **Sound pollution** (strong music, yells...)

Navigating closely around other boats, swimmers, and wild life.

Navigating too near riverbank.

Filling up your tank near the riverbank, on the lake or river.



... or beautiful autumn evening !

References

Ville de Sainte-Marguerite-du-Lac-Masson

Règlement de zonage numéro 128-2018-Z - Section III, chapitre 12.

Brochure d'information « Feu à ciel ouvert » : <https://lacmasson.com>

City of Estereel : www.villedesterel.com

Ministère de l'Environnement et de la lutte contre les changements climatiques

Politique de protection des rives, du littoral et des plaines inondables

Traitement des eaux usées des résidences isolées - Guide technique,

Guide synthèse des bonnes pratiques à l'égard des plans d'eau touchés par les algues bleu-vert

Sentinelles tool : <https://www.pub.mddefp.gouv.qc.ca/scc/catalogue/consultercatalogue.aspx>

CRE Laurentides

<https://crelaurentides.org/>

Guide de bonnes pratiques Aménagement et techniques de restauration des bandes riveraines

http://banderiveraine.org/wp-content/uploads/2013/07/FIHOQ_guide_2013_web_spread.pdf

Conseil québécois des espèces exotiques envahissantes

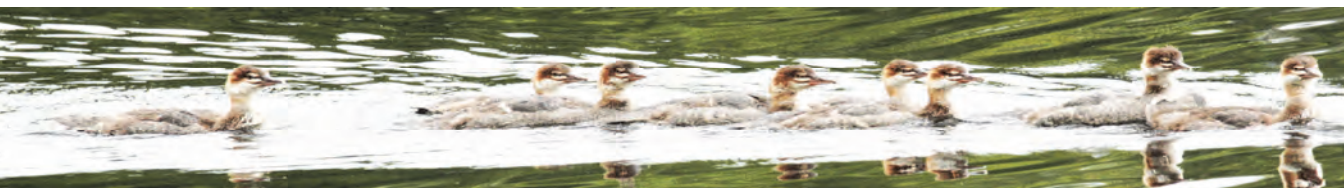
http://vecteurs.cqeee.org/?page_id=1077

Hade, A.

Nos lacs les connaître pour mieux les protéger, Québec, Éditions Fides, 2002.

Chambre immobilière du Québec

Formation: installations septiques pour les courtiers, présentée par Joël Badertscher,



Thanks



Regroupement des lacs et cours
d'eau de Sainte-Marguerite – Estérel

To all the volunteers and members of Regroupement des lacs et des cours d'eau de Sainte-Marguerite – Estérel for the preparation and revision of this brochure.



Ville de
Sainte-Marguerite-du-Lac-Masson

To the city of ~~Ste-Marguerite~~ for their financial support and collaboration in the revision of the text by its employees.

USEFUL PHONE NUMBERS

POLICE SQ, SECURITY AND FIRE DEPARTEMENT **911**

SAINTE-MARGUERITE : 450 228-2543 OR 1 855 228-2545

OFFICER ON DUTY : 450 602-0710

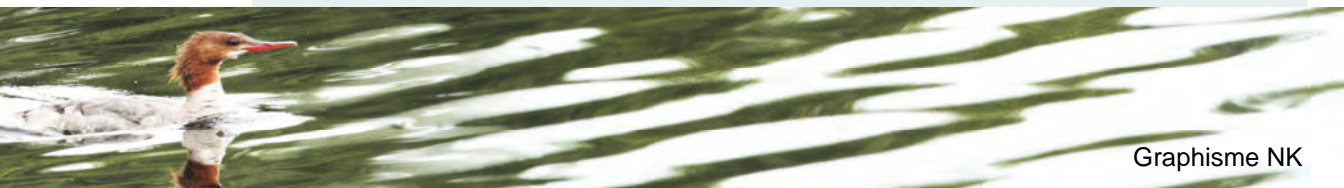
ESTEREL : 450 228-3232

OFFICER ON DUTY : 450 712-3232

ENVIRONMENTAL EMERGENCIES : 450 661-2008

SOS POACHERS : 1 800 463-2191

MRC PAYS D'EN HAUT : (450) 229-6637



Regroupement des lacs et cours d'eau de Sainte-Marguerite ~~du Lac Masson~~ — Estérel

Our mission is to combine our forces to promote environmental protection of our water resources, lakes and rivers.

Would you like to :

- Participate in RDL ?
- Learn how to start an association?
- Receive information on our activities?

Please contact us at this email :

regroupementdeslacs@gmail.com

Participating lakes and rivers associations :

Association de la rivière Doncaster

Lake de l'Alchimiste

Lake Ashton

Lake Castor

Lakes Charlebois and des Sommets

Lake Clair

Lake Croche

Lake des Îles

Lake Dupuis

Lake Masson

Lake du Nord

Lake Violon

et ...

Thank you for helping us maintain a healthy environment by preserving water quality of our lakes and rivers.

*Doncaster river
by HerJac*

