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# 1.0 SUSTAINABLE BOATING ON THE OTTAWA RIVER

The Ottawa River is a major attraction for recreational boaters. It offers unique scenery and ideal conditions for a wide array of aquatic activities. However, recreational boating can have a negative impact on water quality and ecosystems (which in turn can be detrimental to boating). To avoid causing these effects, and to protect the Ottawa River for future generations, recreational boaters should follow sound environmental practices and the preventative measures presented in this guide.

Legislative responsibility for the environment and for recreational boating on the Ottawa River is distributed among the federal government, the provinces of Quebec and Ontario, and the municipalities along the shoreline. As a result, the regulations governing the ecosystems and environment may vary along the river's length. At all times, recreational boaters must be cognizant of the provincial border and knowledgeable about the regulations that apply where they are boating. Boaters should also be aware of private buoys and local initiatives, such as habitat protection/restoration projects. This guide does not replace existing laws and regulations.



## 2.0 AQUATIC INVASIVE SPECIES

An aquatic invasive species is any foreign plant, animal, or micro-organism that has been introduced to an ecosystem and constitutes a threat to the environment, economy, or society by taking over or out-competing native species. Recreational boating is one way to introduce invasive species. Zebra mussel larvae are microscopic, and even tiny pieces of plant can propagate whole new plants, so boats may inadvertently transport the species (in ballast, attached to hulls etc). Moreover, fisherman may use illegal invasive species as bait.

### THREE WAYS TO STOP SPREADING INVASIVE SPECIES:

- 1. Wash all types of vessels and all equipment that may come in contact with water from a watercourse (e.g. a trailer, fish tank, fishing rod).
- 2. When fishing, use artificial lures or legal bait fish. Empty and wash the bait bucket more than 30 meters away from any watercourse. (Note: The provincial lists of legal bait fish is updated every year, see p.5 for an overview. Refer to annual publications on fishing for more details.)
- 3. Polish and wax the hull of your vessel. A well-polished and waxed hull is smoother, reducing the chances that micro-organisms and dirt will stick to its surface. As an added bonus, your boat your boat will look shinier and will be easier to wash!

#### RECOMMENDED BOAT WASHING PROCEDURE

Wash your boat as soon as possible every time you take it more than 30 meters away from any watercourse (including ditches and drains). Wash it on a flat and absorbent surface (e.g. a grassy area) or at a designated boat washing station.

- 1. Remove debris (e.g. wood, algae) and dispose of it in a trash bin away from a watercourse.
- 2. Get rid of bilge water and water in containers (e.g. buckets, fish tanks).
- 3. Clean using a pressure washer (2600 psi) with warm water (50°C). Alternatively, use a brush\*, and homemade environmentally safe all-purpose cleaner (see recipe on pg11 of this guide. A basic wash—even with cold water—is better than doing nothing. Go to ottawariverkeeper.ca/boat-wash-pledge to pledge that you will do your part to minimize the spread of invasive species

<sup>\*</sup>remember to disinfect and rinse the brush after each wash.

Bait Restrictions	
Ontario	Québec
Only 48 kinds of live bait fish are allowed	Dead bait fish are allowed only in winter (from December 20 to March 31) Possession and use of live bait fish is prohibited.
Maximum possession: 120 bait fish, 120 leeches, 36 crayfish (from the water body), 12 leopard frogs	Non-native fish are prohibited at all times, as are several other kinds of fish.
Live bait or bait bucket contents (including the water) should be discarded more than 30 meters away from a water body	Only hunting licence holders may use green frogs, leopard frogs, and bullfrogs as bait. Leeches are allowed.







## 3.0 POLLUTANTS

Pollutants are physical, chemical or biological substances that are directly or indirectly harmful to the environment or human health. Even natural substances (e.g. human feces, sediments) in abnormal concentrations relative to the receiving environment are pollutants. Filtering organisms such as mussels help remove pollutants, but not all types and quantities. To avoid further polluting the water, large boat maintenance jobs (e.g. thorough cleaning, painting, mechanical repairs) must be done far from any water course.

It is illegal to pollute bodies of water by dumping oil, litter, hydrocarbons, or untreated wastewater from a boat.

An estimated 70,000 different chemicals are used commercially in Canada. Many end up in the environment, including in waterbodies. Monitoring of these deposits and their impacts is expensive and, therefore, limited.

In the next section, we will go through a few key chemicals you may use and how to keep them out of waterways.

# 3.1 GREY WATER AND CLEANING AGENTS

Many boaters use soap, body wash or all-purpose cleaner while on their vessels. These cleaning products mix with water to create what is known as "grey water," and often end up where they adversely impact the aquatic environment. Hence, it is essential to minimize their use.

#### DIY ALL-PURPOSE CLEANER RECIPE:

Mix 2 tbsp of baking soda, 2 tbsp of your favourite essential oil, 1 cup vinegar, and 2 L of warm water. Pour into a spray bottle and clean away!

#### PHOSPHOROUS CONTENT OF CLEANING PRODUCTS

To help mitigate the problem of blue-green algae, regulations limit the phosphorous content of most cleaning products. The maximum allowed concentration of elementary phosphorous is 0.5% by weight. Note that phosphorous-free products are not necessarily biodegradable.

# THREE SOLUTIONS FOR PREVENTING THE POLLUTION CAUSED BY CLEANING AGENTS:

- 1. Clean and wash regularly with water and a scouring sponge.
- Use homemade natural cleaning products, such as:
   Baking soda (scrubs and deodorizes)
   Vinegar (disinfects and descales)
   Natural essential oils (adds a pleasant odour)
- 3. Keep it out of the water. Make sure you dump soapy water on land.

Did you know? Even biodegradable soaps can be harmful to fish and other organisms?

Note that cleaning agent labels are often confusing and misleading. Pure soaps (e.g. Castille soap) or cleaning products that are certified by EcoLogo are considered safe.

## 3.2 BLACK WATER

Toilet water contains pathogenic bacteria or viruses that are harmful to the environment and human health. This is known as black water. Consequently, you must always ensure these waters are appropriately treated.

# THREE SOLUTIONS FOR PREVENTING THE POLLUTION CAUSED BY BLACK WATER:

- 1. Regulated pumping stations. Never pump your boat out into a waterway.
- 2. Portable toilets must be permanently attached to the vessel and equipped with a drain adaptor that is compatible with dumping stations.
- 3. Use public bathroom facilities or the ones offered by marinas.

## 3.3 ANTIFOULING PAINT

Antifouling paint helps prevent organisms from covering the hull, which could impede the boat's navigation. Although these paints no longer contain certain polluting compounds such as trybutyltin (TBT), some still contain biocides or copper, which are toxic to aquatic environments.

# FOUR SOLUTIONS FOR PREVENTING THE POLLUTION CAUSED BY ANTIFOULING PAINT:

- 1. Apply an antifouling paint that does not contain biocides. With this type of paint, regular cleaning of the hull with a soft brush is recommended to improve effectiveness.
- 2. Seek out the latest innovations in environmental paints.
- 3. Remove any peeling paint as it starts to peel and dispose appropriately.
- 4. Collect sanding residues and dispose appropriately.





## 3.4 LITTER

Litter thrown into the river accumulates over time and ends up polluting our oceans. Whether it floats, sinks, or washes up on shore, litter is harmful to wildlife because animals mistake it for food. It also detracts from the beauty of the landscape.

#### FOUR SOLUTIONS FOR PREVENTING LITTER POLLUTION:

- 1. Do not throw litter, including cigarette butts, into the water. Bring a closed container to hold any litter until you can dispose of it properly.
- 2. Use reusable containers rather than wrapping supplies in materials that wind can blow away.
- 3. Pick up any litter you see on, in, or around the water.
- 4. Sort your waste once you are back on dry land.
  Encourage marinas to set up good sorting systems,
  especially for hazardous domestic waste like batteries,
  paint, and oil.
- 5. Download iCleanup from icleanup.ca so you can report the waste you removed from the watershed, and see how much the community has contributed to cleaner waterways.

# 3.5 GASOLINE, OIL AND OTHER HAZARDOUS LIQUIDS

Gasoline, oil, and other hazardous liquid products can spill into the water while filling fuel tanks or pumping bilge water. These spills, in addition to damaging the environment, are dangerous to public health. Never, under any circumstances, use soap to clean up a hydrocarbon spill. Soap disperses the spilled product, making any cleanup effort even harder.

# THREE SOLUTIONS FOR PREVENTING GASOLINE, OIL AND OTHER HAZARDOUS PRODUCT POLLUTION:

- Follow proper procedures (pg. 19) when filling the fuel tank to avoid spills.
- 2. Close fuel tanks and containers with a suitable cap, and store/secure them properly.
- Mop up bilge spills with an absorbent cloth meant for hydrocarbon cleanup, especially before pumping out bilge water. Once used, these cloths should be stored in a leak-proof container and brought to a hazardous domestic waste disposal centre.

# PROPER PROCEDURE FOR FILLING UP THE FUEL TANK:

- 1. Moor your vessel properly.
- 2. Turn off all motors and extinguish all open flames.
- 3. Close all windows, portholes, hatches, and cabin doors.
- Ensure all occupants have disembarked.
- Place the fuel hose in the filler opening.
- 6. Respect your tank's capacity.
- 7. Wipe up any spills with an absorbent cloth meant for hydrocarbon cleanup.
- 8. Safely store and secure all portable fuel tanks.





# 4.0 SENSITIVE HABITATS AND WHAT YOU CAN DO TO PROTECT THEM

Sensitive habitats that need protection include animal feeding, breeding, birthing, spawning and nesting sites. They are often situated at the confluence of rivers and streams or in places where land and water meet, such as bays, islands, wetlands and shorelines. In addition to supporting abundant biodiversity, these areas provide key ecological services such as water retention and filtering.

### 4.1 SHORELINES

Shorelines are vulnerable to erosion. This natural phenomenon is accentuated by wave action from passing boats. The intensity of the erosion varies with wave height, which depends on the shape, size, weight, and speed of the vessel.

### **WAVE AND EROSION IMPACTS:**

- Loss of territory for river dwellers, both animal and human
- Damage to riverside facilities (e.g. docks) and to moored boats
- Addition of sediments and nutrients into the watercourse.

# FOUR SOLUTIONS FOR PREVENTING SHORELINE EROSION:

- 1. Reduce boat speed to under 10 km/h near the shore in order to limit waves and the erosion they cause.
- 2. In Ontario, boats must maintain a speed of less than 10 km/h within 30 m of the shore, regardless of whether a buoy is in place. Respect no wake zones (e.g. near marinas).
- 3. Wakeboard-style boats should remain at least 300 m from shore. At that distance, any waves produced will not significantly contribute to shoreline erosion.
- 4. Encourage municipalities and shoreline residents to add trees and shrubs to their shoreline instead of grass and concrete.

### **SPEED AND WAVE PATTERNS**



**No wake speed**Suitable for travel close to shore



Transitioning speed
Larger waves, so travel
must be further from
shore



Planing speed
Waves are lower than
when transitioning
between speeds, but
higher than at no wake
speed, so the boat must
be far from shore.

# 4.2 ISLANDS, BAYS AND WETLANDS

Islands, bays and wetlands are fascinating places to explore, but certain precautions must be taken to ensure the long-term viability of these habitats.

# THREE SOLUTIONS FOR PREVENTING THE DETERIORATION OF SENSITIVE ENVIRONMENTS:

- 1. Avoid exploring (and thereby disturbing) islands where river dwelling birds nest, especially from May to August.
- 2. Minimize wave creation and motor use in these zones.
- 3. Avoid dumping pollutants (e.g. grey water).

These islands include: Île Fer à Cheval, Conroy Island, Mary McConnell Island, Kettle Island, the Finlay Islands, and Petrie Island (particularly the Grandmaître Ecological Reserve).

### KETTLE ISLAND NATURE PRESERVE

This nature preserve has belonged to the Nature Conservancy of Canada since 2007. It is dedicated to conserving the island's exceptional habitats for flora and fauna.

Kettle Island is home to the barn swallow (Hirundo rustica), designated ''threatened'' in 2011 by the Committee on the Status of Endangered Wildlife in Canada. The island offers nesting habitat close to food sources. Human presence hampers the barn swallow's activities and threatens the species' survival by exacerbating erosion of the sandy slopes. Given such impacts, human activities in the preserve are forbidden.



### 5.0 WATER SAFETY

Boaters must navigate at a safe speed and take weather, traffic, and currents into consideration. It is forbidden to operate a boat in an unsafe or dangerous manner (e.g. by splashing a swimmer, cutting off another vessel, or crossing its wake).

### **COURTESY AND THE RULES OF THE ROAD**

Courtesy is important but it is also mandatory to comply with the rules of the "road" to avoid collisions. These rules apply to all types of watercraft.

### **WAKE EFFECT**

The waves produced by a vessel can endanger other boaters, bathers, and shoreline facilities. The operator of the boat must take wake effect into consideration because they will be held responsible for any damage it causes.

## 5.1 ALCOHOL

Avoid drinking alcohol while boating. Alcohol can impair your driving as well as your ability to react to external factors (e.g. wind, other vessels).

Alcohol and Boating: Provincial Regulations		
Ontario	Québec	
The driver of the vessel or the person on watch is prohibited from being under the influence of alcohol or drugs, and from transporting bottles of alcohol, unless they are properly closed.	Drinking while boating is not forbidden, but the driver of the vessel or the person on watch must not have a blood-alcohol level over 0.08% and must not be impaired by the effects of alcohol or drugs.	
On-board consumption of alcohol is only permitted when all of the following conditions are met: the vessel has permanent berths, permanent cooking facilities and a permanently fitted washroom, and is anchored or moored along the shore.	Restrictions apply whether the vessel is moving or moored.	

## 5.2 PRE-DEPARTURE CHECKLIST

- Bring proof of ability, boating licence (or registration), and ID card.
- Review safety rules regularly to stay safe on the water.
   Outfit all boaters with life jackets (of the right size)
- Ensure that safety equipment (according to the length of the vessel) and first aid kit are onboard
- Get official, up-to-date nautical chart from the Canadian Hydrographic Service
- Check weather conditions
- Bring a communication device (cell phone, radio, etc)
- Pack food, water and extra clothes
- Plan your route and let someone know
- Inspect the vessel and check fuel level

WEAR A LIFE JACKET OR PERSONAL FLOTATION DEVICE. 90% OF PEOPLE WHO DROWNED IN AN ACCIDENT WERE NOT WEARING A LIFE JACKET.

#### **CAUSES OF DISTRESS CALLS**

Boaters that experience mechanical breakdowns or run out of gas make up over half of all distress calls.

## 5.3 SAFETY NEAR HYDRO DAMS

- Obey all warning signs, fences, buoys, booms and barriers. They are there to protect you. The areas inside are dangerous; stay clear of them.
- Stay a safe distance outside of warning signs, buoys, booms and barriers when fishing, boating or swimming.
- Stay well back from the edge of waters above and below hydroelectric dams and stations.
- Never stand below a dam, or anchor or tie your boat there. Rapidly changing water levels and flows can take you by surprise and could swamp your boat or put you in the grip of an undertow.
- When canoeing or kayaking, know your limitations by choosing waters that match your skill level and never paddle near dams.
- Be watchful of changing weather conditions and head for shore if the weather turns for the worse. Keep warm and dress appropriately for changing temperatures.
- Everyone on board should wear an approved personal flotation device (life jacket). Ensure younger children wear their personal flotation device at all times.
- Be prepared by having a map of your route with you and leaving a copy with someone at home. Always tell someone when you expect to be back from your trip.
- Obey all posted signs and follow marked trails.



# 6.0 REPORTING ENVIRONMENTAL EMERGENCIES

### **SPILLS**

### **QUÉBEC**

Urgence-environnement 1-866-694-5454

### **ONTARIO**

Spills Action Centre 1-800-268-6060

### **FEDERAL**

National Environmental Emergencies Centre Environment and Climate Change Canada 1-866-283-2333

Call Ottawa Riverkeeper's Pollution Hotline if you see pollution: 1-888-953-3737



## **6.1 EELS**

Have you seen an eel? We want to know!

### Please share with us:

- · Any sightings of live or dead eels
- · Any accounts of eels you have seen in the past

American Eels have declined by 99% in this river system since the 1980s. Help us protect the American Eel by reporting your sightings!

Contact Ottawa Riverkeeper: 613.321.1120
Info@ottawariverkeeper.ca





### **ABOUT US**

Ottawa Riverkeeper, an organization built by and for citizens, is an independent voice for the Ottawa River. We work to protect, promote, and improve the health of the Ottawa River and its tributaries for the benefit of all.

### THANK YOU TO OUR FUNDERS AND PARTNERS!















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Also available in French.

For a digital copy, please visit: www.ottawariverkeeper.ca

