

Understanding the impact of boat wake

With water levels fluctuating from year-to-year boating etiquette has never been more important. In 2014 the Kashwakamak Lake Association (KLA) purchased and installed 80



"Hazard" marker buoys around the lake to indicate rocks, shoals and other areas to avoid with all types of watercrafts.

As part of the KLA's approved 2016 *Lake Sustainability Plan*, "Low Wake" markers were also installed at critical points around the lake. These actions were taken in an effort to encourage safe boating for everyone, as well as preserve our shoreline and the health of the plants and animals on the lake.

Watching your wake

Cottagers and visitors on the lake get a great deal of enjoyment from a host of boating activities ... Those of us with our pleasure craft licence studied specific rules of the water geared to safe and responsible boat-

ing and most of us are familiar with general boat safety and etiquette. However, we may not be as familiar with the impact of boat wake.

Impact of boat wake

- The larger the wake, the greater the potential for undesirable side effects.
- Loons and other birds that nest along the shore choose locations that are protected from waves generated by the prevailing

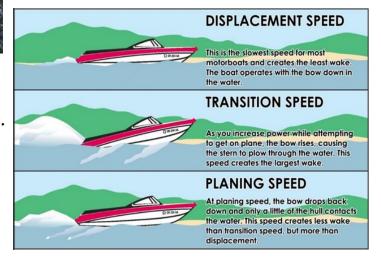
- winds. However, boat wake, which can come from any direction, can and does drown the nests and the young, particularly in May and June.
- Inexperienced swimmers and young children are not usually in the water when winddriven waves are high. However, they can be toppled by the size and energy of a boat wake.
- Boat wake and prop wash can churn up sediments in shallow water which releases
 dormant nutrients that promote weed
 growth and algal blooms which affects
 water quality.
- Boat wake can cause erosion.
- Boat wake can cause docks and moored boats to rock severely and pull mooring hardware.

Source: Understanding & Utilizing the Secrets of Waves

Did you know?

Boats moving through the water create waves, commonly known as wake. Observations have shown the effects of three speed zones: displacement, transition and planing.

The size of the wake when it reaches shore is influenced by the **speed of the boat** and the **distance the wake travels** before it reaches shore.



As waves enter shallow water, they slow down, grow taller and change shape.

(Source: Oceanography:

waves, theory & principles)

waves entering shallow water

waves touch bottom
wavelength shortens

waves in deep water
constant wave length

waves break

As waves enter
challow valer, their
heights increase and
their lengths
decrease.

Why do we have "Low Wake Zones"?

KLA board members heard the message loud and clear – be it in person, via email, a phone call or a post on our Facebook page. People are concerned about the speed some people are going through narrow areas on the lake – whether they are in motorized boats or personal watercrafts - and the impact of their boat wake.

With the 2016 approval of the Kashwakamak Lake Sustainability Plan it is important to note the following impacts of Boating and Personal Watercrafts, (page 12.) The key issues arising from this are: shoreline erosion, noise, boat traffic, personal safety, invasive species, pollution and impact on wildlife.

The Lake Plan's first objective under this issue is to:

 Ensure our lake community is aware of the impacts of specific boating behaviours, with a specific recommendation to add "low wake zone" signs in affected areas.

Implementation Action:

 9 markers were installed in 5 key areas on the lake, (Whitefish Bay, Brown's Bay, Long Island narrows, Beaver Bay and the passage near Fernleigh Lodge).

Respect the boating rules ...

The speed limit is 10 km/h within 30 metres of the shoreline

Know the Rules

What is a Wake?

⇒ A wake, in nautical terms, refers to the waves produced behind a moving boat.

What is a "Low Wake Zone"?

⇒ A "Low Wake Zone" is a designated area where boats are going at a slow speed with minimum wake.

What are the Ontario Marine Safety Rules?

- ⇒ According to <u>Transport Canada's Marine</u> <u>Safety Guidelines</u> there are Province-Wide Shoreline Speed Limits.
- ⇒ Ontario has adopted speed limits of 10 km/h within 30 m (98'5") of shore on all waters within their boundaries.
- ⇒ NOTE: "This limit is in effect whether it is posted or not." http://www.tc.gc.ca/media/documents/marinesafety/TP-511e.pdf, p. 54

What do I do when I get near a "Low Wake" marker in my boat?

⇒ When you see a "Low Wake" marker it's time to slow your motor boat or personal watercraft down to 10 km/hour or less to ensure that minimal wake is produced.



- ⇒ To do this, the engine must be put into idle speed when you're entering the designated zone.
- ⇒ Idle speed means the lowest speed a boat can safely operate while maintaining control of steering.

Kashwakamak Lake has a number of unmarked narrow passage ways where the "Low Wake" guidelines apply.