# PROTECTING VERMONT LAKES FOR FUTURE GENERATIONS BY MANAGING THE IMPACTS OF WAKE BOATS AND THEIR ENHANCED WAVES

Developed by the Responsible Wakes for Vermont Lakes (RWVL): <a href="mailto:responsiblewakesvt@gmail.com">responsiblewakesvt@gmail.com</a>

Issues Presented by Wake Boats and Enhanced Waves: Artificially enhanced wakes created by wake boats and wake-enhancing devices can cause environmental damage, degrade water quality, create safety hazards for people in or on the water and near shore, and cause physical damage to property and shorelines as illustrated in this 1.5-minute video: <a href="https://www.youtube.com/watch?v=idgfK4m16fl">https://www.youtube.com/watch?v=idgfK4m16fl</a>.

What are Wake Boats: Wake boats are powerful motorboats designed to produce large wakes to enhance recreational activities such as wakeboarding and wake surfing. These boats were introduced in the 1980s, became popular in the 1990s, and are now growing in popularity.

**Reasons to Manage Wake Boat Usage:** The wave energy of these enhanced wakes is much greater than that produced by other boats or by wind-driven waves. Wakes can be 4 to 5 feet in height.

The thrust from a wake boat engine is powerful and angled down toward the lake bottom. It can reach down 20 feet, scouring the bottom and causing significant disruptions below the surface of the water.

#### **Environmental effects:**

- Invasive species introduction (from lake-to-lake transport in ballast tanks) and proliferation through fragmentation
- Artificially enhanced wakes produced too close to shore or in water that is too shallow contribute to:
  - Shoreline erosion
  - o Increased algal blooms due to stirred-up sediment, including phosphorous, which adds nutrients to the water
  - Habitat and aquatic plant disruption, and threat to wildlife (nesting loons, turtles, amphibians, etc.)

### **Economic impacts:**

- Damage to shoreline buffers trees, shrubs, natural borders, and homeowner plantings
- Damage to property docks, boats, lifts, etc.
- Diminished property values
- Reduced tax base
- Threat to tourism from adverse impacts

#### Safety concerns:

- Personal injury to swimmers, anglers, and other boaters
- Obscured forward vision resulting from boat operation in enhanced-wave mode (heavy ballast weighs down the stern and causes the bow to rise, blocking ability to see swimmers or small watercraft in the path of the boat.)

### What can be done about managing wake boats and wake boat activities in Vermont?

The adverse impacts of wake boats and wake-enhanced water sports have increased significantly over time. At least 17 states and the province of Quebec are considering artificial wake-enhancement restrictions. Vermont needs to address these issues before they become unmanageable. Education is essential – BUT IS NOT ENOUGH – to prevent the damage caused by enhanced wakes. Momentum is growing across the US and Canada to address the environmental and safety impacts of wake-enhanced water sports. Our RWVL group has joined this effort and recommends the following wake boat operation restrictions: 1) deeper than 20-feet of water, 2) more than 1000 feet from shore, and 3) minimum contiguous area of 60 acres. These efforts to manage wake boats and the impacts of their large and enhanced boat waves are not intended to prohibit wake boats or wake sports in Vermont; they only seek to limit these boats and activities to areas far enough from shore and in deep enough water to limit their negative impacts. Small or shallow lakes and ponds are inappropriate for wake boats and wake sports. To learn more about RWVL's ANR petition, go to our website (http://responsiblewakes.org) to view our "Picture Storybook" and "FAQs" under the Media tab.

Please also consider signing the following online letter of support for our ANR petition to demonstrate our public support by going to <a href="mailto:tinyurl.com/RWVLLetterOfSupport">tinyurl.com/RWVLLetterOfSupport</a>

## THREATS POSED BY WAKE BOATS AND WAKE SPORTS

## Public/Personal Safety







Capsize risk

## **Environmental/Water Quality Damage**







Toxic Algae Bloom

# Shoreline Erosion/Property Damage/Decreased Water Quality, Property Values, Tax Base



Shoreline erosion/turbulence



Shoreline bank erosion



Erosion and property damage

# **Habitat Damage**



Fish habitat



Loon nest disruption

# Within Lake and Lake-to-Lake Spread of Aquatic Invasive Species (AIS)



Eurasian Milfoil



Spiney Water Flea