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April 19, 2011

Chairman James E. Timilty
Joint Committee on Public Safety and Homeland Security
State House, Room 507
Boston, MA 02133

Chairman Harold P. Naughton, Jr
Joint Committee on
State House, Room 167
Boston, MA 02133

Dear Chairman Timilty and Chairman Naughton:

Thank you for providing this opportunity to offer our comments on An Act relative to "jet skis", surf jets, wet bikes, and other personal watercraft in municipalities, H.1565, sponsored by Rep. James O'Day. We wish to express our strong support in favor of H.1565.

The Sierra Club is a non-profit, non-partisan organization with almost a million members in the United States, 22,000 of which are in Massachusetts, making us the largest grassroots environmental organization in America.

BACKGROUND

This bill gives municipalities the local option to place reasonable restrictions on personal watercraft (aka "jet skis") from great ponds (ponds less than 750 acres) which are enclosed within their boundaries. **This bill does not place any bans, limits, restrictions on personal watercraft. It simply provides "home rule" so that communities can have a say in how their waterways are used, ensuring a more democratic process.**

This would give Massachusetts residents the same rights enjoyed by citizens of New York and Rhode Island, among others, which recently passed similar "home rule" laws regarding PWC use. For example, Vermont has banned PWCs from waterways under 300 acres in size. Maine has banned them from 245 great ponds.

For example, under current law:

- Municipalities are prohibited from protecting migratory waterfowl during their migration period.
- Municipalities are prohibited from restricting PWC use during specified hours, such as 5am on weekends.
- Municipalities are prohibited from requiring PWCs stay at appropriate distance from shoreline nesting birds such as Common Loon (special concern), Pied Billed Grebe (endangered) ¹, multiple species of ducks, and Great Blue Heron,

Due to a PWC's ability to navigate in extremely shallow waters, they represent a serious threat to the feeding areas of multiple species of turtles (endangered and threatened), birds, fish, and other wildlife.

On May 26, 2007, Yaritza Diaz, a 9-year-old girl from Worcester was left struggling for her life after she was struck by another PWC on Indian Lake in Worcester². Two days later, New England Patriots lineman Marquise Hill was killed in a PWC accident. *These two tragic events clearly illustrate the important inherent differences between PWCs and power boats.* This bill provides a small step in allowing local communities to address the numerous problems associated with these crafts.

EXCESSIVE POLLUTION

PWCs emit toxic chemicals such as benzene (a known carcinogen), and toluene (which affects the nervous system) into our air and water. The estimates that per hour of use, the average PWC pollutes the air at 60 times the rate of an average automobile.³ Many Massachusetts communities already face a cancer risk more than 100 times the goal set by the Clean Air Act.⁴ The Northeast States for Coordinated Air Use Management Office conducted quality assured ambient monitoring throughout the 1990s and found that even the lowest measured outdoor concentrations of benzene, 1-3, butadiene, acetaldehyde, and formaldehyde in the Northeast region exceeds established health protective guidelines, in most cases by several orders of magnitude.

While the PWC industry has made an effort in promoting models that are less polluting, they don't reveal that they are still churning out highly polluting 2-stroke engines. In these 2-stroke engines, the intake and exhaust valves are open at the same time, so excessive unburned fuel pours straight out of the vehicle before it can be combusted. As of March 2011, Kawasaki is still marketing their 2-stroke 800 SXR, as is Yamaha's 2-stroke Superjet.⁵ These engines emit four times greater more emissions than 4-stroke engines with equivalent horsepower⁶. Hydrocarbons released from two-stroke motors float on the surface of the water and settle within the shallow ecosystems. These areas are home to many organisms at the base of the food chain. Scientists have determined that hydrocarbon pollution can bioaccumulate within the complex food web and pose a threat to the environment.

Emissions released into the water are up to 50,000 times more toxic under field conditions in the presence of the ultraviolet (UV) light in sunlight. This is due to polycyclic aromatic hydrocarbons (PAHs), substances contained in petrochemicals that form highly toxic and persistent compounds known to be: 1. ubiquitous contaminants that bioconcentrate; 2. carcinogenic to mammals; and 3. acutely photo-toxic to aquatic organisms within minutes or hours.⁷

THREAT TO WILDLIFE

PWC manufacturers often claim that there is no difference between a PWC and a motorboat. This claim is erroneous. The federal courts have upheld PWC restrictions in the national parks because there is substantial evidence proving the unique damage that they cause to air and water quality, visitor enjoyment, public safety, and wildlife.⁸

Studies conducted by the US Park Service indicate that PWC users routinely harass waterfowl in their nesting areas,⁹ as well as marine mammals such as otters and beavers, as well as waterfowl in their nesting areas. A Woods Hole Oceanographic Institute study described how PWCs, which lack a low-frequency long-distance sound, fail to alert surfacing birds or mammals (including humans) of their approach until it's too late.

Various coastal communities have restricted PWC use after biologists observed that seal pups were becoming separated from adults because of nearby PWC activity. Unfortunately, these young creatures have no protection from PWCs on Massachusetts inland waters.

Marine biologists have also found that PWC use alters behavior of marine mammals. Biologists at the Mote Research Center in Florida investigated the impacts of both conventional motorboats and PWCs on dolphins and found that regardless of approach speed, PWCs elicited a greater response and evoked greater changes in behavior than conventional motorboats. It is believed that this is due to the unpredictable approach of PWCs, as well as the fact that the machines are not acoustically detectable at the same distance as other watercraft. This lack of predictability translates into greater disturbance and potential danger.

The researchers also found that the water depth at which a disturbance takes place is significant. Disturbances in shallow water produce a higher frequency of directional and inter-animal distance changes. This is particularly troubling considering that PWCs, unlike conventional boats, can access very shallow waters that have historically been a sanctuary from boat traffic. The scientists warn that if these shallow waters are not safe havens for marine mammals that ability to sustain themselves, avoid boat traffic, or a mother's ability to safely rear her calf could be compromised.

PWCs also have a negative impact on sensitive marine habitats because of the vessel's ability to get into areas inaccessible to conventional motorboats. Outboard motorboats require approximately 24" of water to operate; but PWCs need only 12" of water (and many can be used in less). This greater range enables PWCs to cause excessive turbulence in the water¹⁰, causing huge "brown-outs": turbidity that blocks light penetration, depleted oxygen, and harms both fish and birds. Studies have found that shoreline birds often cannot see their food or prey below the surface when standing in 6 inches of water.

REBUTTAL TESTIMONY

On April 5, at the hearing on H.1565, Ms. Nicole Vasilaros, Manager of State Government Relations, National Marine Manufacturers Association, objected to H1565 as being "unfair". Sierra Club notes that environmental damage and habitat destruction is unfair. Choosing one of the many hundreds of lakes where PWC operation may require traveling a few additional miles is at the very worst, a small inconvenience.

Claiming that PWC are simply "smaller boats" is factually incorrect. Propeller-driven outboard motor boats typically require 24" of water for normal operation, and typically operate at significantly lower speeds. The top speed of a 13' Boston Whaler with a 35hp engine (a common configuration¹¹) is around 30mph. PWCs are built for maximum speed – often 75-90mph, are operated at full throttle, can travel in 12" water depth. Furthermore, the insurance industry also recognizes the differences between powerboats and PWC and issues significantly different policies for both types.¹²

We also take exception the claim that the result of placing temporary restrictions on PWC use, while, for example, a threatened species has young in its nest, would be confusing to PWC users. Many of our great ponds are home to threatened, endangered, and/or species of concern. While we understand the disappointment that recreational PWC owners could experience, when the need arises to protect our wildlife, our municipalities must be empowered to take appropriate action.

CONCLUSION

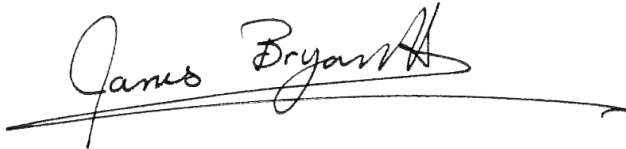
Communities both across the US and internationally have singled out PWCs for waterway restrictions because of their unique impacts on swimmers, canoers, kayakers, anglers; air and water quality; natural soundscapes; and marine animals.

Even if all manufacturers entirely converted to more fuel-efficient crafts, this would not solve many of the problems that are inherent to these crafts, including safety/design problems, noise pollution, turbidity, and detriment to aquatic creatures shoreline birds.

This bill does not ban PWCs. This bill simply gives taxpayers the right to place reasonable restriction on PWCs this protecting our wildlife, our water, and the air we breathe.

Because this proposed legislation would have a significant positive impacts for the environment and ecosystem of the Commonwealth, the Sierra Club fully endorses House Bill 1565 and hopes this bill is reported favorably by the committee and is supported by all members of the Senate and House of Representatives.

Respectfully,

A handwritten signature in black ink that reads "James McCaffrey". The signature is written in a cursive style and is underlined with a long horizontal line that extends to the right.

James McCaffrey
Director
Massachusetts Sierra Club

¹ Massachusetts List of Endangered, Threatened and Special Concern Species, MassWildlife, MA Department of Fish and Wildlife, as published in MA CMR of Aug 2008. Retrieved March 30, 2011

² Danger in its Wake, Personal Watercraft: A Safety Issue, Worcester Telegram & Gazette, June 3, 2007

³ California Air Resource Board

⁴ Implementation of the 1990 Federal Clean Air Act Amendments, Massachusetts DEP, Status report, retrieved March 30, 2011

⁵ Data retrieved from noted manufacturers' websites, March 30, 2011

⁶ California Air Resources Board

⁷ Environmental Assessment Of The Impacts Of Polycyclic Aromatic Hydrocarbons (PAH) In Lake Tahoe And Donner Lake, California State Water Resources Control Board, March 20, 2003

⁸ U.S. District Court civil action documents of Bluewater Network vs. Robert Stanton

⁹ National Park Service, Lake Mead, Nevada

¹⁰ California Air Resources Board

¹¹ Survey of small powerboats for sale, twelve 13' Boston Whalers advertised. Ten had 35hp engines, two had 40hp engines. Craigslist, data retrieved March 30, 2011

¹² Geico, Boat Insurance Division, data retrieved March 30, 2011; Progressive Insurance, watercraft division; data retrieved March 30, 2011; Allstate Insurance, boat insurance division; data retrieved March 30, 2011.