

To any boater crawling home through a no-wake zone, and wishing hull designers could produce a fast wakeless boat, the emergence of hi-wake hull designs seems to be misguided technology. But to the wake boarder and wake surfer, a whole new range of exhilarating water sport has developed, with concomitant demonstrations of skill, competitions and awards. Wake boats use hull design, propulsion device alterations, and ballast systems to increase the size, form, and direction of wakes. They are certainly boats, but designed as wake and wave making machines. These watercraft are touted with pitches such as; *“this 21’ sport specialist features a wave and wake maximizing hull...”* and *“Immense waves and wakes are a standard feature...”* Those boats with a ballast system carry a bladder which can hold over a ton of water to favorably alter planning characteristics. This water ballast is charged and then ejected as the boat is launched and then removed from a waterway.



Although most changes to the status quo bring a degree of consternation to those confronted, rarely have the inherent intents of an innovation so directly exacerbated a condition already deemed in need of remedy.

High wakes cause shoreline erosion, impose a higher level of protection for moored and docked watercraft, and disrupt shoreline habitat; hence the previous establishment of no-wake zones. The Department of Natural Resources and wetland promoters have long been advocating naturalizing shorelines and eliminating the practice of armoring them with pilings or rip-rap, and limiting of wakes, rather than their propagation, is essential to maintain that initiative. The wakes cause environmental, ecological and property damage. The size of the wake seen on the surface is also of equal size under the surface. This large under water wake disrupts and damages aquatic life.

There has been a growing trend in more sedate use of the lakes. Stand-up paddle boards, sit-on kayaks, and smaller rowing shells have recently joined the canoes, kayaks, and small sailing and fishing boats which make up much of the inventory of lake users. Virtually all these users are wake adverse, and when younger children are the user, the large wakes create safety hazards for swimmers, canoes, kayaks, paddle boats and other small water craft.

Like ski boats, wake boats focus everyone's attention toward the back of the boat where the action is. The bows tend to rise, obscuring vision forward. They add to the intensity of activity on a lake, and the distraction of the boat's occupants coupled with speed makes for dangerous lake congestion.

Of special concern regarding the bladder boats is the potential for the transmission of aquatic invasive species. Spiny water flea, zebra and quagga mussel larvae, and VHS can all be transmitted by ballast water. Regulations have limited the use of live well on fishing boats to prevent such transmissions, and there is a concern that residual water in a ballasted boat would move these invasives from waterway to waterway.

We can hope that, as in the case of Jet-ski type boats, an accommodation might be reached to allow the lakes to be enjoyed by a broad range of users. It will never-the-less be seen, in cases, that the use of boats and devices designed to create large wakes is a serious problem on small lakes and rivers. Some postulate that a minimum waterbody size to accommodate these watercraft is 300 acres.

Several lakes are or have been contemplating prohibitions or restrictions. There are legal and logistical complications: Can such boats be allowed if operated at sub-wake speeds? Who would enforce operation limits? How does the DNR mandate for open access to state waterways play out? At what level of governance should prohibitive ordinances be implemented?

Often, the solution to a problem defaults to advancing a simple respect for other lake users. What can one do to avoid escalation of the dissention?

- Watch your wash. As you travel, watch behind you. If your wash is sending other boats rolling, forcing them sideways or causing occupants to scramble for a hand-hold or if it is crashing against the shoreline, you are creating too much wash.
- Watch out for and be considerate of small vessels such as canoes and kayaks.
- Slow down well before meeting and overtaking other boats and well before narrow channels. Leave as much room as possible between you and boats you meet or overtake.
- Give special consideration while passing harvesting machines which manage vegetation growth in the lake.
- Maintain a proper look-out at all times to avoid emergency maneuvers.
- Remember that your hull shape determines the damage you cause on the surface and below the surface. All hulls can cause damage. It is your responsibility to be aware of your boat's characteristics so we can all enjoy the Lake.

There will be much to report on the development of the technology, and the responses. Stay tuned!