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*Your decisions and actions
can help us protect the
shorelines and maintain the
beauty of Newman Lake.*

Prepared by
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Spokane Conservation District

Newman Lake Wake Induced Shoreline Erosion



WAKES

- Newman Lake property owners are working to reduce the potential for environmental impacts caused by wakeboard boats on the shoreline of Newman Lake.
- Wakes from wakeboard boats have an impact on the physical environment including the lakebed and shoreline, other vessels, floating and fixed structures, and on species that inhabit the shoreline regions of the lake.
- Wakeboard and other boats can create wakes with a height of 1 foot. These wakes must be absorbed by structures (docks, piers, boat houses, etc), and beaches along the lake shore.
- The height of the wake decreases with increasing distance from the sailing line (or path) of the boat. In general, wakes produced further from the shoreline have less impact.
- Wake boarding boats typically produce the largest wake when operating between 8 and 10 mph, and the wake height decreases somewhat once the boat reaches planing speed.
- Newman Lake experiences seasonal water quality problems such as low dissolved oxygen and algae blooms. These conditions can be harmful to fish, humans and pets. Shoreline erosion releases soil and nutrients to Newman Lake, which contributes to these conditions during the critical summer months.

Figure 1. Wakes generated by wakeboard boats.



CONSEQUENCES

Property owners around the lake have been affected by the wake interaction with their beaches. In the narrowest portion of Newman Lake, the shoreline has been affected and a significant quantity of beach sediment has been washed away leading to a loss of beach quality and the potential for failure of shoreline structures (Figure 2).



Figure 2. Existing beach property at Newman Lake (2012)

MEASURES

Studies indicate that good management of boating activity can minimize or prevent shoreline erosion.

Figure 3 shows the recommended wakeboard boat speeds in the narrowest portion of Newman Lake.

- Red indicates passing navigation is not permitted within 100 feet from the shorelines, only ingress and egress by property owners (Newman Lake management plan),
- Yellow indicates speed should be less than 8 miles per hour (mph) at a distance of 300 feet from the shoreline and,
- Blue indicates the area for boat operations at full speed. However, reduced speed across this area for wakeboard and waterski boards will help protect Newman Lake Shorelines.

BENEFITS

- Reducing speed within designated zones will minimize the potential for impacts to shorelines and infrastructure.
- Reduced erosion equates to improved beach quality for recreation and habitat, requires less costly protective measures and leads to an enhanced watershed for property owners and recreational users.

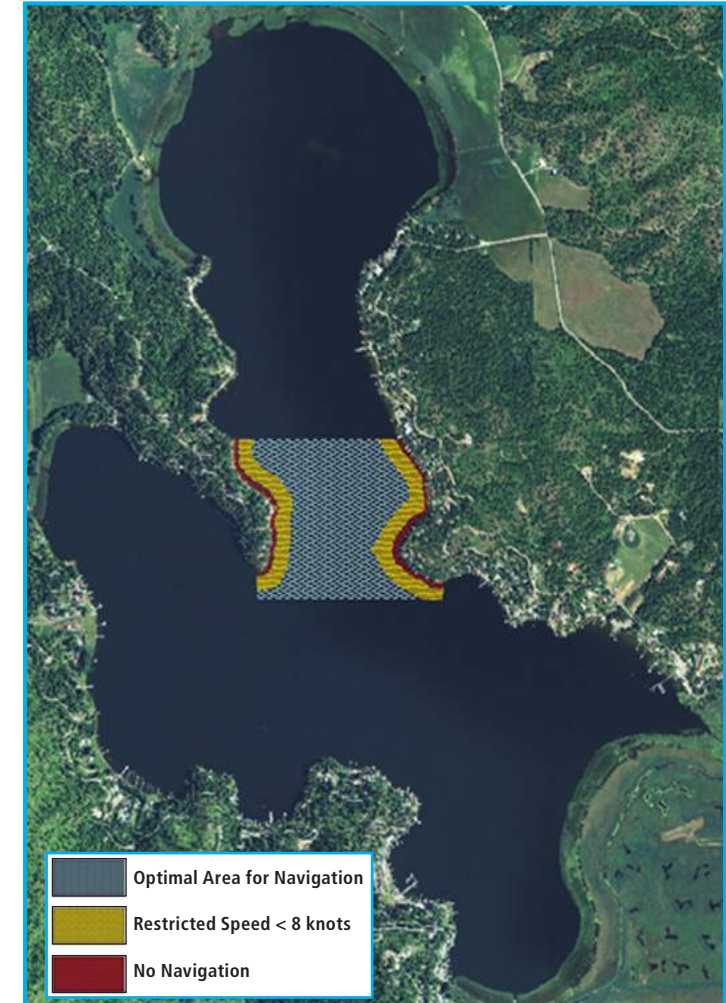


Figure 3. Existing beach property at Newman Lake (2012)