The Spokane River, its History, and the Risks Facing the Public Due to its Popularity.

Lorabelle Behlmer, BS, PA and Stephen D. Behlmer, BS, MD, FAAD, ASFPRS, FADS.

INTRODUCTION:

Much of the history of the United States of America involves its waterways. The great rivers of our country formed pathways of discovery, means of travel, and shipping and recreation. The rivers provide residents of our country with fishing, drinking water, agricultural purposes, and countless other benefits. In the early days of our country, these rivers, which are our lifeblood, became polluted due to the activities such as mining, lack of waste treatment, diversion of waterways, and development. As stewards of this land and waterways, we would like to believe that we have become smarter. We now have organizations whose purposes are to foster Environmental Protection of our lands and waterways. We have state and federal departments whose sole mission is to regulate the use, and to prevent the abuse of our lands and waters. Numerous governmental agencies are involved in the repair of the environmental damage of the past and to prevent environmental damage going forward.

As stewards of our land and rivers, we are faced with impending permanent damage to the Spokane River. The damage is resulting from mass real estate development and usage that is beyond the capacity of this river. This paper will present reasons for concern of the Spokane River as it courses through Idaho. Risks for this river have profound consequences due to potential overdevelopment and inappropriate increased recreational use. Sources of information for this paper are a combination of reference papers, and the author's background and first hand knowledge of the activities of the Spokane River.

POINTS OF CONCERN

Regulations of the Spokane River

The Spokane River is a significant waterway in this country, flowing approximately 111 miles through northern Idaho and into Eastern Washington. It is a tributary of the Columbia River and plays a crucial role in the communities that are near the river.

The Spokane River is subject to various federal regulations, particularly concerning the Water Quality and Environmental Protection. The United States Environmental Protection act oversees water quality standards, including monitoring pollutants, and ensuring compliance with the Clean Water Act. State agencies in Idaho and Washington participate in the regulations and management of the Spokane river. The Spokane River is vital for recreation, fish, wildlife habitat, and as a drinking water source for nearby communities. It faces challenges such as pollution from heavy metals, overdevelopment, and excessive recreational activity. In summary the Spokane River is governed by a combination of federal, state and the local regulations, ensuring its protection and management for future generations.

EROSION

For several years, it has become popular to pilot a boat in such a way to produce large wakes. Some boats are designed specifically for that purpose, and many boaters can be observed to be piloting their boats in a style called *plowing*. Either type of boat or style of piloting produces wakes. Boat speed is only a small factor in the production of damaging wakes. In fact, faster boating on a plane can produce less wake. The damage to the ecology of the river due to wake boarding, or boating to produce wakes has many facets. Even normal recreational boating results in environmentally negative consequences. These consequences are related to both the style and the number of boats using the water. Turbulence of the water is clearly related to both the style and the number of loads on the river.. Boating is a major driver of shoreline damage especially in shallow, soft sediment, high traffic areas. Wakes from boats erodes the riverbanks 2 to 5 times faster than natural waves. Propellers scar the riverbeds and vegetation loss creates vicious cycles. Riparian areas of the river are impacted by wakes. Erosion of the riparian areas results in loss of habitat for birds and mammals such as the deer and moose. Erosion of the river shoreline results in damage to properties as well. Sea walls have become necessary to prevent continued erosion due to high boat traffic along the river.

SAFETY

People who live along the Spokane river on the waterfront frequently notice, rather frightening examples of boating hazards. Activities such as towing float toys with rapid turns to swing the riders, which are usually children. These boats swing them around like a whip. The children are excited to do this activity, but they often are often thrown from the toy. It is common to see other boaters encountering the children on float toys at high speeds and with very little notice. The river has become more crowded on the weekends with increased number of boaters, particularly during the summer months. As a result, it is common to see boats, passing other boats at remarkably high speeds and near- miss collisions. Non-motorized river enthusiasts find limited times when they are able to kayak or do stand up paddling, fishing or swimming on the river due to boating activity. Boating after dark occurs often, and many times boats are seen at high speeds during the summer months. Safety has become a real concern, and in the vernacular, it's an accident waiting to happen.

NOISE POLLUTION

This rather speaks for itself. Boaters using the through- hull exhaust create unnecessary noise. Stresses other boaters who just want to be on the river and have fun. For people who live on the river this is more than just an annoyance.

POLLUTION

Increased pollution of the Spokane River is the most immediate concern. Mining activity in the mountains above the Spokane River resulted in significant heavy metal contamination. Nickel, zinc, and arsenic can be found in the Spokane river sediment. On the mornings in the middle of the week the water is quite clear. With increased boating activity on the weekends the water becomes very murky. Motorboats, including recreational power vehicles, boats, personal watercraft and larger

vessels generate turbulence primarily through propeller wash and many with high velocity jets. This disturbs riverbed sediments, especially in the shallow water areas. This suspension churns the particles, and spreads contaminates throughout the water, exacerbating pollution in the river. Lake Coeur d'Alene and the Spokane River have state recommendations and restrictions on eating the fish that are caught in these bodies of water. Heavy metals have been found in the fish of these waters. Boating activity induces the turbulence in the water, which causes it to become very murky with the sediment containing pollutants.

Wakeboarding, has been determined to significantly disturb a rivers ecosystem. The large wakes lead to: Sediment Resuspension and Erosion. According to studies from other waterways these are recommended practices.

- 1. To have an operating depth of at least 20 feet when in surfing mode to minimize disturbance of the riverbed.
- 2. It is advisable for wakeboarders to maintain a distance of at least 200-500 feet from the shore to allow waves to dissipate before reaching sensitive areas of the rivers.
- Regulatory Considerations should be; Set speed limits within certain distances from the shore to reduce wave energy. Designate areas where wakeboarding would be permitted based on the river's characteristics and ecology.
- 4. Evaluation of the capacity of the river should be evaluated before issuing any further dock permits.

River pollution is directly related to the quantity of boats going up and down the river. Boating activity on the river corresponds with the number of boat slips that are available. Boaters entering the river from the lake contribute to the numbers as well. Communities such as Spokane, which are downriver from the Spokane river in Kootenai County, are the recipients of increased pollutants in the river. It could be said that it's time for a moratorium on approval of additional boat dock spaces/slips. Further study is warranted to determine the environmental and safety impacts, resulting from approval of more boat dock spaces/slips being developed along the river.

Regarding the current applications for boat docks/ slips, several questions are unanswered. As the number of boat docks/ slips is based on feet of shoreline, the method to determine this shoreline is in question. If the correct footage is based on the sum of the riverfront of four individual parcels, then this might be incorrect since it is one application to the state of Idaho, then the applicable frontage should logically be calculated as from point A direct to point B of the entire property requesting that rivers boat docks/slips permit. Question, Is the permit request for a commercial dock actually a sham? Property owners in a subdivision have the first right to a boat dock for example at Waterstone, the likelihood of outside access to the boat dock is slim to none.

CONCLUSION

The Spokane River is at the precipice, a term which has been used by journalists for the Coeur d'Alene Lake. This refers to an article which addresses specifically issues similar as the river, but regarding the Coeur d'Alene Lake. This article in the newspaper recently is very applicable to the Spokane river.

There are numerous articles and studies regarding boating and how it can impact the water and the environment.

We must be good stewards and protect the water and land in our community. Promote safety.

References

Available upon request