

## Robert W. Droll, Landscape Architect, PS

18059

February 8, 2019



### **RE: Long Lake Park – Swim Beach Dock**

To Jennifer Burbidge, Lacey Parks & Recreation Director:

Kevin Johnston, an aquatic expert of KJ Design and Consulting and I have reviewed the Dock at Long Lake Swim Beach, discussed operations and management issues with Lacey Parks Staff. Mr. Johnston and a colleague have conducted a SCUBA dive of the Swim Beach Area, including under the Dock, to gain a comprehensive understanding of the Swim Area conditions. KJ Design's findings and analysis can be found in *Summary of Findings Underwater Hazards Survey & Assessment (1/11/19) & Swim Beach Assessment, Lifeguard / No Lifeguard Analysis & Swim Beach Management / Safety Overview (1/27/19)*.

Based upon our understanding of the Dock and Swim Beach conditions, Mr. Johnston and I recommend Dock removal before the 2019 Swim Season. Whether the waterfront is guarded or unguarded, the Dock is the one waterfront feature that is a major liability. It is difficult for the lifeguards to effectively supervise with the Dock located in the middle of the Swim Area since it requires a 360-degree line of sight. The water depth surrounding the Dock on the lake side is deep (can't see the bottom, therefore a person) and is shallow on the landward side. The lakebed increases in depth 3-4 feet over the Dock width (a drastic change of slope). Water depths in beach environments change; however, if children have only the option to wade in from the shore, they would feel the natural slope and have the opportunity to stop before going too deep versus proceeding immediately to the deep end via the Dock.

The presence of the Dock promotes negative behavior with some patrons which drastically increases the City of Lacey's liability exposure. These behaviors exist whether the waterfront is guarded or unguarded. Dock removal would eliminate the opportunity for the following negative behaviors, their associated consequences, and related liability exposure.

- Running on a wet Dock surface could cause a serious slip and fall resulting in injury.
- Diving, flipping, and jumping off of the Dock could result in a head or spinal injury or head injury from striking their head on the dock.
- Horseplay and pushing and shoving on the Dock could result in a serious injury if someone hits the Dock.
- Numerous people fish from the Dock, which increases hazards of fish hooks snagged on the dock or dropped on the bottom of the Swim Area, resulting in a penetration to the skin and possible infection.

- By swimming underneath and/or in between the Dock's floats, swimmers may panic and be trapped under the 12-foot wide Dock structure and out of view of the lifeguards.
- Diving off of the Dock into the shallow water could result in head and spinal injuries.

The Dock is an attractive hazard that offers serious liabilities and fosters negative behavior which lifeguards find impossible to control. Moreover, by removing the Dock, Lacey will forego the expense of replacing the Trex Decking which is starting to fail and poses a hazard to patrons. Based upon the aforementioned reasons, and upon Staff's documented evidence most rescues are related to the Dock, Mr. Johnston and I agree Dock removal reduces Lacey's liability exposure and helps to modify negative behavior resulting in a safer Swim Area experience for all.

Respectfully,



Bob Droll, ASLA  
Principal