

Should There Be A Public Swimming Beach At Heritage Park?

There are many things to consider when siting a public swimming beach. Protecting the health and safety of the swimmers is the primary objective. Things to consider when evaluating a possible swimming beach site are

- 1) safety from physical hazards,
- 2) water quality conditions, and
- 3) presence or absence of contamination sources.



What do we know about Capitol Lake along the Heritage Park shoreline?

1. There is **Known Contamination** of soils and groundwater under parts of downtown Olympia near Capitol Lake. Some of that contamination seeps into the storm water systems and flows into the lake.

The types of contamination found in the groundwater and soils downtown include gasoline, diesel, fuel oil, and lead. Most of this contamination is from leaking underground storage tanks at former gas stations and engine repair shops located along Capitol Way, Columbia Street, and other city blocks near the lake.



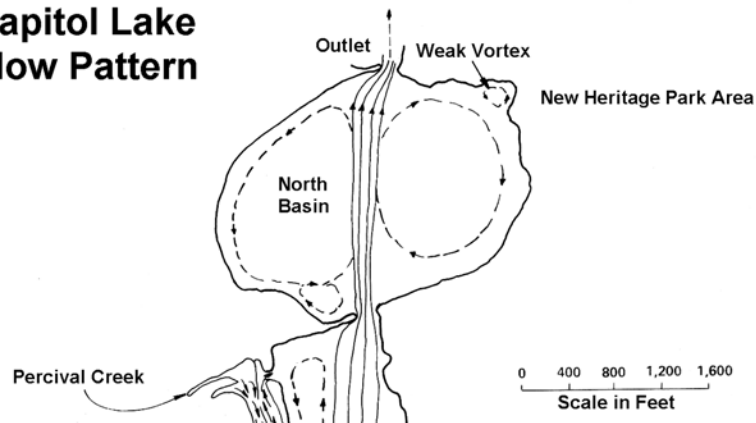
There are 19 storm water pipes which discharge street runoff into the lake along the Heritage Park shoreline. Street runoff carries garbage, bacteria, metals, and fuel-related contaminants commonly found on any city street. People wading or swimming near these storm water pipes can be exposed to contaminants by accidentally swallowing water, by absorption through the skin and mucous membranes, or through small cuts and abrasions. Water-borne pathogens include cryptosporidium, E. coli, pseudomonas, shigella, hepatitis A and other viral illnesses. The resulting illnesses can cause diarrhea and abdominal cramps, skin rashes, ear and eye infections, and respiratory infections.

In 2002, chemical contaminants in lake sediment samples were at levels below those that would pose a risk to people swimming or wading. However, the potential for spills and contamination in this area remains high.

2. There is **Poor Water Circulation** along the Heritage Park shoreline.

A study done in 1976 found that the water in the area of Heritage Park (the historic swimming area) circulates in a small circle separate from the main part of the lake. This means that this area receives little flushing or dilution. Poor circulation in a public swimming beach promotes water quality problems and puts bathers at risk. While more information is needed to determine if flow patterns have changed as a result of the recent work in Heritage Park, observations indicate circulation in the historic swimming area is still poor.

Capitol Lake Flow Pattern



Bathers themselves introduce bacteria and pathogens from their bodies into the water. People with poor hygiene practices, people who are ill, and children who are not toilet-trained can be sources of fecal contamination.

In swimming pools, chemicals are added to the water to kill bacteria that may be introduced. In natural bathing waters, the bacteria

introduced can remain alive for several hours, and can cause the spread of disease to other bathers. If fresh water does not circulate into the swimming area and contaminated water does not flush out, then the likelihood of exposure to disease-causing organisms increases.

3. There are **Accidental Spills**

The threat of accidental spills into Capitol Lake is great, given the large number of direct storm water discharges and the intensity of land use near the lake.

Historically, there have been many accidental spills of pollutants into Capitol Lake and the Deschutes River just upstream of the Tumwater Falls. Examples of a few spills that have occurred are as follows:



- A sewer line break discharged about 1 million gallons/day of raw sewage into the lake for 12 days in February 1996.
- An emulsified asphalt material, applied to I-5 during a paving project, washed directly into the lake during a rain storm in June 1999.
- 300 gallons of raw sewage discharged into the lake due to a contractor error at the Capitol Lake lift station in March 2000.
- An estimated 1,900 gallons of brewery wastewater and sewage spilled into the Deschutes River due to lift station failure in May 2002.

Unless these public health risks can be reduced, Heritage Park would not be a suitable place for a public swimming beach.



For further information, contact Thurston County
Public Health & Social Services, (360) 754-4111.