
From: hwbranch@aol.com
Sent: Friday, November 17, 2017 8:42 AM
To: Storm and Surface Water Plan
Subject: Storm and Surface Water Plan Update

Dear City of Olympia,

Re: The Storm and Surface Water Plan Update.

Water Quality Challenges are summarized as among other things a necessary reliance on the public to control non-point sources. The term "source" doesn't necessarily mean "origin". A source can be a bottleneck, a place where substances from different origins come together. Many non-point origins of surface runoff could be listed as one known source, the ubiquitous curb and gutter. Has the City considered removing curbs and gutters and replacing them with natural swale?

Aquatic Habitat Challenges are summarized as habitat fragmentation and general impacts of urban development. Aquatic habitat means more than anything habitat for plankton. Phytoplankton are the base of the food web, they incorporate nitrates into the system and generate dissolved oxygen. Nitrates travel 18 times farther in a buried pipe than one on the surface.

Most surface water once ran in streams. Diverting a stream into a pipe separates the stream from its hyporheic zone, the area of saturation surrounding the stream. Contamination could be remediated here by among other things living organisms. Has the City considered daylighting any streams?

The most important section of a stream is its estuary, the all important mixing zone where freshwater and nutrients enter the marine environment. An intertidal culvert in an estuary is a plugged up septic environment, the worst of all worlds. Has the City considered restoring any stream estuaries?

The worst contamination in Budd Inlet is in the form of PCBs and dioxin. These are not from surface runoff they're from groundwater intrusion. What is the City doing to identify and control ongoing sources?

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