



January 19, 2018

Abbey Stockwell
Municipal Stormwater Permit Writer
Water Quality Program
Washington State Department of Ecology
P.O. Box 47696
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RE: 2019 Western Washington Municipal Stormwater Permit Reissuance, Initial Drafts

Dear Ms. Stockwell,

Zero Waste Washington appreciates the opportunity to provide feedback on initial draft sections of the 2019 Western Washington Municipal Stormwater Permit Reissuance (Phase I and Phase II). Thank you for your work on the permits and your broad inclusion of many stakeholders in the permit development process.

Zero Waste Washington is a nonprofit group that represents the public on recycling and zero waste issues. We work to protect people and our natural world by advocating for products designed and produced to be healthy, safe, and continually recycled and reused. We envision a just and sustainable world where society responsibly produces, consumes and recycles. We especially work on plastic pollution and that is the subject of our main comment below.

Background: Litter and debris, and in particular, plastics, are a significant concern in Puget Sound waters and in the world's oceans. It is estimated that about 80% of the plastics found in marine waters come from land-based sources and much of that load is carried in the stormwater pathway.

As you know, one-use plastic disposable items, such as plastic bags, vape tubes, food serviceware, straws, plastic coffee lids, and other plastic waste, often get tossed and blown around and accumulate along roadways, public spaces and in waterways. Once this litter reaches creeks, rivers, lakes and the Sound and ocean, it is difficult to remove and the plastic gradually breaks down into tiny bits called microplastics, but does not ever completely decompose. Macro- and microplastics adversely impact the habitat of fish and wildlife.

Recent studies by University of Puget Sound researchers have found plastics in local Chinook salmon, shellfish and birds. Researchers at University of Washington Tacoma have conducted studies by using fine sieves pulled through the water behind research vessels. They also sampled the bottom muds. They have found that the microplastics are diverse and made up of items of various shapes, sizes and materials.

The problems of plastics in our watersheds and in Puget Sound and coastal ocean include:

- Birds, fish and other aquatic organisms mistake the plastic bits for food, resulting in potentially fatal damage due to blocked intestines and starvation.
- Toxic chemicals are preferentially absorbed onto plastics (because they are attracted to the “oily” nature of plastic relative to water), thus accumulating toxic pollutants. Humans, in turn, eat fish and shellfish, which have ingested these plastics, thus increasing the toxic load transferred to humans.
- Macroplastic litter can cause entanglement or in other ways harm mobility of organisms.
- Waterways and their banks and beaches can be marred by plastic buildup, impacting aesthetics and tourism.
- Human health can be impacted by standing water (mosquitos), toxic chemical in containers, and other hazards associated with containers and other plastic items.

In addition, and importantly to stormwater management, **it is costly for jurisdictions to clean up trash and debris**, which is needed to make sure that stormwater systems and facilities operate correctly and do not cause flooding or performance issues.

Our comment:

- **Add Litter and Debris to Best Management Practice (BMP) list under Behavior Change.** In the Public Education and Outreach” (Ed &O) permit section in the Phase I (Special Condition S5.C.10) and Western Washington Phase II Municipal Stormwater Permits (Special Condition S5C.1.), we strongly recommend that “Litter and debris prevention” be added to the list of BMPs.

In order to reduce the load of macro- and microplastics (and other marine debris) in our marine waters, lakes and streams, it is important to address the sources of these items at the local level. This will improve water quality and reduce impacts to humans and wildlife. The permit is the appropriate document for this important pollution reduction work to be identified.

Thank you for consideration of our comments. I can be reached at heather@zerowastewashington.org or (206) 441-1790.

Sincerely,



Heather Trim
Executive Director