

Protecting Endangered Species by Removing Road Pollutants



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One day of sweeping during winter months

The Regional Road Endangered Species Act (ESA) Program establishes a set of road maintenance guidelines and practices to help conserve ESA listed species, while meeting critical roadway safety and maintenance needs. The Program guidelines operates under nine conservation outcomes, one of which is "sediment collection." This action removes sediments and the contaminants associated with them from the road and drainage systems before they enter water drainage ditches, streams, rivers and lakes. Sediment collection restores the efficiency of the stormwater system, allowing for settlement of sediment in the system and a slow release of stormwater that helps prevent erosion of stream banks and beds.

Street cleaning and catch basin maintenance are critical components for promoting clean water, habitat protection and salmon recovery. The material that Snohomish County Public Works removes during these processes include:

- Metals from automobiles and trucks, such as copper, zinc, nickel, and chromium, which are all toxic to aquatic life.
- Organics from automobiles and their exhaust systems, such as poly-aromatic hydrocarbons, anti-freeze and other automobile fluids which are absorbed by organic material on roads.
- Inorganic pollutants such as roadside debris and litter.
- Tree debris (leaves, needles, blossoms, pollen, etc.) has been shown to contribute to increased phosphorus and nitrogen in road-side waterways. High amounts of organic material can consume large amounts of oxygen when they start to decay in water, which in turn harms fish and other aquatic life such as macro-invertebrates and freshwater shellfish.
- Fine sediments, including small gravels and sands, are known to plug the interstitial spaces between stream gravel making it difficult for aquatic life to find shelter, and can also deprive developing eggs and juveniles of oxygen.

