

Water Quality 102: Nonpoint Source Pollution

By Bryan Duggan, Water and Environmental Specialist

In the past I have discussed Nonpoint Source (NPS) Pollution in relationship to the Tribe's efforts to curtail sediment runoff from eroding Reservation roads; but to what effect does stormwater and diverse anthropocentric activities have on water quality? There is no doubt that people do business within watersheds and what we leave behind can, and often does, wash away into our rivers, lakes, and oceans during rainfall events. NPS pollution occurs from multiple sources of contamination, as opposed to single location, such as an industrial discharge pipe.

According to the U.S. Environmental Protection Agency (EPA), "nonpoint source pollution is the leading cause of water quality problems" within our nation's waterways; negatively affecting the use of water for drinking, recreation, fishing, transportation, commerce, and wildlife." The most common NPS pollutants are: soil sediments, nutrients, pathogens, heavy metals, herbicides, pesticides, oil, grease and salts. Poor water quality isn't just a bummer for fish; NPS pollution in our waterways leads to increased costs and risks to our social and business enterprises.

A large percentage of NPS pollution in Oregon is caused by agricultural, forestry, recreational and urban activities. Agricultural runoff can include sedimentation, fertilizers, herbicides and pesticides, and livestock fecal bacteria. Forestry practices affect surface waters through erosion, particularly from logging roads; the impacts from agriculture and forestry can be compounded by a lack of stream side vegetation buffers. Recreation and urban sources of NPS pollution occur from boating sewage and engine maintenance, littering, pet wastes, lawn and garden chemical uses, automobiles, construction activities, and improper disposal or release of noxious chemicals. Does your car or truck leak any lubricants (mine have in the past)? If so, we are contributing a small amount to a larger cumulative effect on our aquatic environment.

As diverse as the sources and affects of NPS pollution may seem to have on our local watersheds, there are multiple and even inexpensive solutions to the problem. At the community level it is imperative that there exists a coordination of NPS pollution control activities between local agencies and organizations. The Tribe has a NPS Pollution Management Plan that incorporates Best Management Practices to control polluted runoff at CIT project sites; and incorporates the use of forest buffer zones to filter and protect the Tribe's water resources during forest management activities. The State DEQ requires NPS protection plans when issuing construction contracts and our local watershed councils spend thousands of dollars annually in restoring riparian processes and functions to protect our common waterways.

As a homeowner and watershed citizen you have a part to play as well. The following are activities that can reduce your impacts to your local waterways: 1.) prevent and clean up automobile leaks; 2.) avoid lawn fertilizers and pesticides, or if you insist on using them, avoid during heavy rains or near open surface water; 3.) recycle and dispose of toxic chemicals accordingly; 4.) pick up your pet waste and dispose of properly; and 5.) never pour or dump wastes into our street drains, these are NOT connected to treatment plants, but rather drain directly into the bay.

We are enormously efficient in our ability to mobilize and distribute diverse resources for our commercial interests; however; along the way we inadvertently spill, leak, and dump harmful materials onto the landscape. The nature of watersheds is intrinsically connected

from top to bottom and so the cumulative impacts of many can result in a combined loss of health and prosperity for all human and non-human alike living within the watershed. The little things DO matter, and we can help minimize our cumulative impacts if we are willing to take responsibility for the contaminants we do leave behind.

To learn more, contact: Bryan Duggan, the LRES “go to guy” for NPS pollution information at: bryanduggan@coquilletribe.org.