

Air Quality

The tribal air quality program continuously measures NPS in the form of atmospheric particulate matter at 2.5 microns (PM2.5), which consists of combustion particles and other suspended particulate that result in reduced visibility (haze) and a potential hazard to human health. The Tribes' air tower also consists of instruments that measure weather conditions such as temperature, rainfall, solar radiation and wind speed. Nonpoint source pollution can influence conditions that affect these measurements indirectly.



The air monitoring tower located in Coos Bay.



Visit the Tribes' website (www.ctclusi.org) for more information on nonpoint source pollution or to view the Tribes' assessment and management of NPS pollutants in Tribes' the ancestral territory or preview real-time Environmental monitoring data .

Confederated Tribes of Coos, Lower Umpqua and Siuslaw
1245 Fulton Avenue
Coos Bay, OR 97420

PLACE
STAMP
HERE

NON-POINT SOURCE POLLUTION



Confederated Tribes of the
Coos, Lower Umpqua, and Siuslaw

Department of Natural Resources
2013

Howard Crombie, Director, 541-888-7511
John Schaefer, Biologist & Water Quality Specialist, 541-888-7303
Margaret Corvi, Environmental Specialist, 541-888-7304



John Schaefer, Tribal Biologist & Water Quality Specialist, out in Coos Bay at one of the Tribes' water monitoring stations

What are Non-Point Source Pollutants?

Unlike pollutants derived from a single source, non-point source (NPS) pollution comes from many diffuse sources mixing in the environment.

NPS water pollution is caused by rainfall ground water flow, and/or snowmelt moving over and through the ground. As the water and sediment particles move, they pick up and carry away pollutants, and deposit them into lakes, rivers, wetlands, coastal waters and ground waters. NPS pollution is the leading cause of water contamination and water quality degradation.

NPS air pollution affects air quality from sources such as wood combustion, industrial activities or car tailpipes. Although these pollutants have originated from a point source, the transport, distribution, and mixing from multiple sources of the pollutant make it a nonpoint source of pollution. Precipitation can cause the deposition of NPS air pollutants which then contributes to NPS water pollution.

Examples

- Excess fertilizers, herbicides, insecticides as well as bacteria and nutrients from livestock on agricultural lands
- Oil, pet wastes and toxic chemicals from urban runoff
- Sediment from construction sites, crop and forest lands
- Faulty septic systems
- Smoke and aerosols from trash burning, fireplaces and vehicle emissions

Tribal NPS Management

The Tribal Natural Resources Department seeks to minimize the impacts of diffused contaminants in waterways and ambient air on or near Tribal lands. Management of NPS pollution strategizes to increase levels of coordination and cooperation with land holders and other stakeholders within the Confederated Tribes and Ancestral Watersheds to help meet management goals to deter diffuse pollutants. Managing NPS pollution enhances tribal resources and ultimately promotes sovereignty over Tribal lands.



Outreach and Collaboration

One of the important ways the Tribes build capacity is by having strong collaborative relationships between the Tribes and other stakeholders who participate in restoration and conservation of lands and water our Ancestral Watersheds. Stakeholders include, but are not limited to, private landowners, watershed councils and other committees groups seeking to protect natural resources.

Creating and maintaining these relationships is key to enhancing community awareness and recognition of Tribal sovereignty. It also integrates Tribal technical, financial and land resources as well as traditional knowledge with the technical skills, knowledge, and stewardship commitment of partners in these watersheds and their Watershed Associations.



Margaret Corvi, Tribal Environmental Specialist, collaborating with monitoring specialist from South Slough.

Monitoring: Water and Air

As a part of collecting data for further management implementations, the Natural Resources Department does both water quality monitoring and an air quality monitoring.

Water Quality

The NPS pollution program works to systematically and holistically conserve and restore Ancestral Watersheds to improve water quality for consumption and culturally-significant resources such as fish, wild game, birds of prey, edible and medicinal plants and roots.

Tribes work cooperatively with:

- Siuslaw Watershed Council
- Partnership for the Umpqua Rivers
- Smith River Watershed Council
- Coos Watershed Association
- Tenmile Lakes Basin Partnership
- Other Committees focused on NPS issues

Water quality monitoring assists the Tribes' with educating tribal members about what affects natural resources so as to build awareness and develop criteria for human use. Multiple parameters are measured to study the effects of NPS pollutants that may result in high levels of harmful bacteria, increases in sediment or decreases in dissolved oxygen levels.



NR volunteer preparing water samples to measure bacteria.

NPS nutrient pollution may increase the occurrence of harmful algae blooms (HABs) that can make shellfish toxic to consume. In addition, events such as sewage spills and runoff during storms can contaminate shellfish. For current closures check the **Shellfish safety hotline: 503-986-4728 or 1-800-448-2474 or visit** http://www.oregon.gov/ODA/FSD/Pages/program_shellfish.aspx