Frequently Asked Questions

DEQ Water Quality Work Underway in the Deschutes River Basin

The Deschutes River Basin is one of Oregon's most treasured places. Streams, rivers, lakes, and reservoirs in the basin support many uses, including irrigation and livestock water, domestic and industrial water supply, hydropower, fish and wildlife habitats, and diverse recreational opportunities. DEQ's mission is to protect and improve Oregon's water quality, preserving these many beneficial uses. The following are common questions about DEQ's water quality work in the Deschutes Basin.

What is the quality of water in the Deschutes Basin overall?

Many waterbodies in the Deschutes River Basin have good water quality. However, some, including several lakes, reservoirs, and river segments, may occasionally have poor water quality because of environmental conditions or pollution from human sources. Water quality characteristics affected by pollution in these waterbodies include temperature, pH, dissolved oxygen, and levels of toxic materials such as mercury.

What are common sources of pollution in the basin?

Pollution in the Deschutes Basin comes from a variety of sources. Nutrients, sediment, bacteria, and toxics originate from residential, industrial, and agricultural areas distributed across the basin. Human alterations of environmental conditions may also magnify effects of these pollutants in waterbodies. Dams and irrigation diversions have changed the timing and amount of flow in streams and rivers throughout the basin. Climate change compounds effects of pollution by altering the timing and amounts of precipitation, increasing the risk for wildfire, warming water temperatures, and worsening drought.

Is DEQ monitoring water quality and where can I find the data?

DEQ has 10 long-term monitoring sites in the Deschutes Basin that have been active for about 40 years. DEQ stores all water quality data, along with data received from other government agencies, volunteer groups, and organizations, in the Ambient Water Quality Monitoring System, a publicly accessible database available online.

In 2019 DEQ began a special monitoring campaign in several lakes and reservoirs primarily in the upper portions of the basin to monitor water quality impairments and to help develop plans to clean up surface waters.

What are harmful algal blooms and what is DEQ doing about them?

Algae are microscopic plants that grow in streams, rivers, lakes, and reservoirs. Under certain conditions, such as excessively warm water, high levels of nutrients, or stagnant water, Natural algae populations may grow at an accelerated rate, resulting in a "bloom." Blooms may create harmful conditions by degrading water quality and producing toxins dangerous to humans and animals.

DEQ has a Strategy to detect, monitor, assess, and manage harmful algal blooms in coordination with partner agencies and interested parties. DEQ monitors lakes and reservoirs across the state during summer months

and coordinates with the Oregon Health Authority to post recreational health advisories when needed. In 2019, DEQ began a focused harmful algal bloom monitoring study in multiple lakes and reservoirs in the Deschutes Basin.

What is DEQ's approach to restoring good water quality?

DEQ's approach to restoring water quality includes analyses of current conditions leading to degraded water quality, identification of pollution sources, and quantifying required reductions in pollutants to attain good water quality. This approach is referred to as Total Maximum Daily Loads (TMDLs) in the federal Clean Water Act and is a standard way in which Oregon cleans up water across the state.

TMDLs establish a pollution budget for a waterbody. When the pollution budget is met, water quality improves. DEQ plans to develop TMDLs for a wide variety of pollutants in the Deschutes Basin over the coming years.

How is DEQ working with dams and hydropower projects to protect water quality?

DEQ issues water quality certifications to federally licensed dam and hydropower projects to make sure that they are in compliance with the Clean Water Act. This includes EPA-approved water quality standards, programs and policies, and TMDLs. Certifications must also ensure compliance with other state water quality laws, including laws implemented by other agencies, such as the Oregon Department of Fish and Wildlife and the Oregon Water Resources Department. After certifications are issued, DEQ actively engages with dam or hydropower managers through participation in meetings and review of data, plans, and reports.

Additional Water Quality Resources

The federal Clean Water Act requires Oregon to report on the quality of its surface waters every two years. The Integrated Report includes the status of water quality in Oregon and a list of waters considered to be impaired. Find out more about the 2024 integrated report here.

DEQ is developing a statewide, science-based nutrient reduction strategy to better address and prevent harm to Oregon's waterways and groundwater from a wide range of human activities.

DEQ is working with the Interagency Water Reuse team, municipal wastewater utilities, irrigation districts, industry groups, and other interested parties to identify areas of improvement for beneficial water reuse within the state. Reusing water for certain agricultural, commercial, and residential purposes can help Oregon address issues like continuing droughts and water scarcity.

Deschutes River Basin Contacts

Smita Mehta
Deschutes TMDL Basin Coordinator
Smita.Mehta@deq.oregon.gov

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