Briefsheet

Lower Yakima River Cleanup Plan - a plan targeting sediment and pesticides

What is a Water Cleanup Plan?

Federal law requires states to identify sources of pollution in waters that fail to meet state water quality standards, and to develop Water Cleanup Plans to address those pollutants. The Water Cleanup Plan, sometimes called a Total Maximum Daily Load (TMDL), establishes limits on pollutants that can be discharged to the water body and still allow state standards to be met.

In the autumn of 1998, the federal Environmental Protection Agency (EPA) approved a Water Cleanup Plan for the lower Yakima River developed by the Washington State Department of Ecology.

The Lower Yakima River Cleanup Plan is designed to reduce suspended sediments, improve water clarity, and reduce pesticides in the river, most notably DDT.

Furrow irrigation, common in the Yakima River Valley, often results in topsoil leaving hop fields like this. Conversion to sprinkler and drip methods can eliminate runoff and the sediment it carries.

Why the lower Yakima?

The Yakima River Basin is an important agricultural, recreational, and cultural resource in the state. But pollution seriously threatens the health of the lower river and jeopardizes its many uses.

Throughout the lower Yakima River Basin, an extensive system of canals, ditches and pipes deliver millions of gallons of water to irrigated crops each growing season. Soil and pesticides are carried to the river through irrigation returns. Because the river fails to meet water quality standards, a Cleanup Plan is required under the federal Clean Water Act.

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What did the TMDL study find?

State, federal and tribal agencies have documented high levels of the pesticide DDT and excessive turbidity in the lower Yakima. Soil from furrow-irrigated fields has been identified as the primary source of these pollutants.

During a normal irrigation season, some 300 tons of sediment enter the lower Yakima every day from irrigated farmlands. Sediments carry pesticides and other pollutants to the river, interfering with fish migration and spawning, and endangering critical fish habitat.

Although banned in 1972, DDT remains in river bottom sediments and continues to be moved up through the food chain. In fact, a United States Geological Survey study identified DDT in the tissue of Yakima River bottom fish at some of the highest concentrations in the nation. In 1993, the state Department of Health issued an advisory against eating large quantities of the fish.

What's happening now?

After four years of study and public review, Ecology has set water clarity targets for the irrigation returns and streams discharging to the lower Yakima River.

Sulphur Creek, which joins the Yakima River south of Sunnyside, contributed an average of more than 110 tons of sediment per day to the river during the 1995 irrigation season. Most of the sediment comes from fields using furrow irrigation methods.

A monitoring program of the Roza and Sunnyside Irrigation Districts employs its own professionals to measure turbidity in ditches like the Granger Drain.

These enforceable limits, set in five-year increments over the next 15 years, will improve water clarity and reduce the amount of sediment and pesticides entering the river.

To prevent erosion from croplands, farmers are beginning to switch from furrow irrigation to more efficient drip and sprinkler systems. Local irrigation and conservation districts are delivering education programs and monitoring irrigation returns to measure improvements to water clarity. In addition, the agencies are helping farmers find resources to help pay for these irrigation changes.

Ecology will continue its monitoring program as well. In addition, the agency has implemented a technical assistance program to help farmers identify and solve pollution problems. Non-enforcement staff are available to offer specific tips on how to reduce water pollution and soil erosion and increase water conservation. Farmers have found these measures can result in large reductions in fertilizer usage and increased productivity.

For more information…

If you have questions about Ecology's work in the lower Yakima Basin, contact Chris Coffin at (509) 454-7860; or email at ccof461@ecy.wa.gov.). You can also log on to our web page at http://www.wa.gov/ecology/cro/yrblat/.

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