



Conservation in Washington: Powered by People



MAKING AN IMPACT:

- *Yakima River water quality improved by about 80%.*
- *Discharge of suspended solids from Sulphur Creek Drain decreased by 93 tons per day.*
- *30 landowners participated.*
- *Implemented 10 rill-to-sprinkler conversion projects benefitting over 600 acres.*

SOUTH YAKIMA CONSERVATION DISTRICT - FARMERS IMPLEMENT PRACTICES TO CLEAN UP YAKIMA RIVER

The Lower Yakima River Basin in south central Washington is known as one of the most intensively irrigated areas in the United States. In 1974, a study conducted for the Washington State Department of Ecology identified Sulphur Creek sub-basin as having the greatest irrigation water quality problems of any sub-basin in the Yakima River Basin. In the 1994 irrigation season, 110 tons per day of total suspended solids were discharged to the Yakima River (equivalent to 14 dump truck loads), and 31.9% of all sources of suspended solids were coming from the Sulphur Creek Drain.

FINDING A COMMON PATH In response to Sulphur Creek’s widely documented water quality problems, the South Yakima Conservation District (SYCD) led a Model Implementation Project from 1977-1982 to improve irrigation practices. Then, in 1996, SYCD received funding to begin the Sulphur Creek Best Management Practices (BMP) Implementation Project. The

District recruited 30 landowners to participate in the project, and they funded 10 rill-to-sprinkler conversion projects that benefitted over 600 acres.

RESULTS ON THE GROUND In 2000, SYCD began evaluating the success of the BMPs landowners implemented in sub-basins 5 and 10 in collaboration with the Roza-Sunnyside Board of Joint Control. Water quality samples were collected at three sites, three days per week during the irrigation season from mid-April to mid-October. Data were collected on several water quality parameters, including discharge, turbidity, suspended solids, Kjeldahl nitrogen, phosphorous, temperature, pH, conductivity, and dissolved oxygen. The evaluation revealed that landowners had significantly improved water quality by adopting BMPs. In sub-basin 5, Total Suspended Solids (TSS) decreased by 56%, Total Phosphorous (TP) decreased by 32%, and Total Kjeldahl Nitrogen (TKN) decreased by 117%. In sub-basin 10, TSS decreased by 86%, TP decreased by 69%, and TKN decreased by 45%. By 2003, discharge from Sulphur Creek Drain averaged 17 tons per day—a decrease of 93 tons per day in less than 10 years. Landowner participation was essential to this success.

“Thanks to their extraordinary efforts, the farmers of the Yakima Valley have helped improve the river’s water quality by about 80%,” said Linda Hoffman, Department of Ecology Director. “Initially, many were wary of the loft goals we had set for the Yakima River, but they accepted the challenge and demonstrated amazing leadership in cleaning up the river.”

Sulphur Creek draining into Yakima River before (left) and after South Yakima Conservation District worked with farmers to implement best management practices for water quality (right)

