

## **ABSTRACT**

### **MAINTAINING LOCAL CONTROL IN THE ERA OF TMDLS**

*Carol A. Ready, Water Quality Specialist, Kittitas County Water Purveyors, P.O. Box 276, Ellensburg, Washington 98926-0276, (509) 925-6158, [carol.ready@kcwp.org](mailto:carol.ready@kcwp.org)*

The Clean Water Act (CWA) has brought challenges to irrigated agriculture nation-wide and to the Upper Yakima River Basin. This presentation shared how the Kittitas County Water Purveyors (KCWP) have been working with local irrigation interests to support water quality and wildlife habitat and ensure local participation in regulatory processes, move toward compliance and maintain local control of these issues.

Currently, there are three CWA water clean-up or total maximum daily load (TMDL) plans ongoing or expected for Kittitas County. The Upper Yakima River Basin Suspended Sediment, Turbidity and Organo-chlorine Pesticide TMDL was approved by the US Environmental Protection Agency in 2002. The Wilson Creek Sub-basin Bacteria TMDL is in preparation and Upper Yakima River Basin Temperature TMDL is expected by 2005.

The KCWP has helped this agricultural community to develop local water quality expertise and define potential solutions. The KCWP is conducting water quality monitoring, participating in TMDL development, working with the Kittitas County Conservation District and directly with landowners. For Kittitas irrigated agriculture a major concern has been return flows which consist of excess water from irrigated fields that runs into creeks and canals that may carry with it suspended sediment, turbidity, pesticide residues, nutrients and bacteria. The sediment TMDL recommends irrigators use management practices that minimize soil erosion, such as the use of soil stabilizing polyacrilamide (PAM), piping delivery water, adding buffer strips, encouraging the use of gated pipe for rill irrigation, and conversion to sprinklers.

Local water quality monitoring and field observations during 2000-2003 indicate that for sediment and turbidity 1) spring generally has the highest values, reflecting the timing of spring precipitation, snow melt and the beginning of irrigation in April; 2) storm events generally cause spikes anytime; 3) tilled fields and newly seeded fields produce greater values; 4) established hay fields generally have low values; 5) the use of PAM can greatly reduce sediment and turbidity in return flows; and 6) Kittitas Valley is close to meeting the 2006 turbidity target of approximately 18.6 NTU (turbidity units).

Water quality monitoring in 2003 will include surface return flow and subsurface return flow parameters (turbidity, temperature and bacteria), and 24 hour/day temperature and turbidity logging in selected tributaries and waste ways. In addition, the KCWP is working on habitat improvements by participating in the *Yakima Tributary Access and Habitat Program*, which will receive approximately \$2 million funding from the Bonneville Power Administration during 2002-2004. These funds will assist local water interests to properly screen diversions, to remove fish passage barriers such as small

dams and culverts, implement on-farm water use efficiency projects and improve riparian areas.

The KCWP was formed in 1999 to foster the beneficial use of irrigation water, encourage sound water management and advocate water storage development in support of agriculture, water quality and wildlife habitat. Members include irrigation districts, companies and creek water rights holders who collectively serve more than 90,000 acres of irrigated land in Kittitas County.