

## Water Quality in Lower Yakima River Tributary Streams and Irrigation Return Drains

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Water quality in streams and irrigation return drains within the irrigated portion of the Yakama Reservation was evaluated from 2006-2008. The investigation quantified the bacteria, total suspended solids (TSS), and nutrient loads discharging to the Yakima River from the Yakama Reservation. Year-round biweekly sampling was conducted on 13 streams and drains that discharge to the Yakima River, plus several drains internal to the irrigation system and reference locations. A total of 13 laboratory and field parameters were measured. Stream gaging was conducted to calculate loading and to evaluate the relationship between hydrology and water quality. This study identified potential sources of contamination that contribute to Lower Yakima River water quality impairment and provided data regarding the magnitude, location and timing of constituent discharge into the Yakima River. The information is being used to identify target areas for improvement, and to improve water quality through outreach, education, and regulatory enforcement.