



# WRIAs 44 and 50 Watershed Assessment

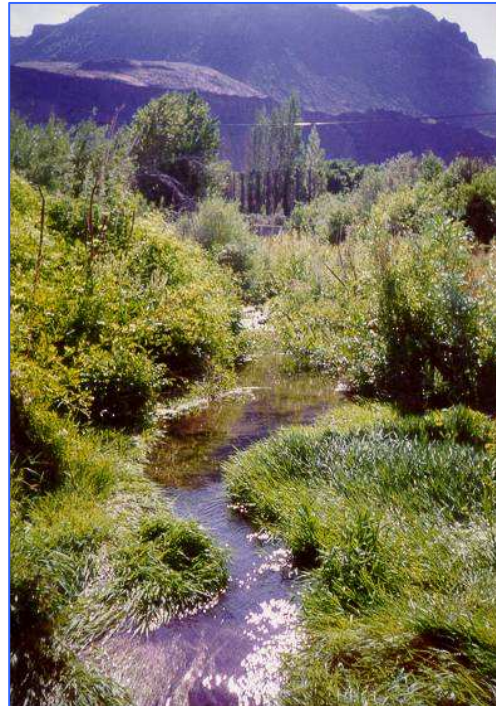
## *North Central Washington*

R2 provided multidisciplinary technical assistance to the WRIAs 44 and 50 Planning Unit for assessment of watershed conditions and development of recommendations for appropriate instream flows as reserved water rights under §2514 of the State Watershed Planning Act. WRIAs 44 and 50 are located in north central Washington and encompass all of Douglas County and parts of Grant and Okanogan counties. The Planning Unit directed the watershed study efforts to address the specific needs of anadromous fish species that are the current attention of ESA efforts in WRIAs as well as of significant resident trout fisheries.

R2 completed an assessment of the physical, hydrological, and chemical conditions in 11 fish-bearing streams within the WRIAs. Specific tasks completed by R2 included: review of existing literature and database information on resource conditions, water quality, and fish use; evaluation of riparian vegetation using aerial photography; macroinvertebrate sampling and analysis; water quality sampling; fish habitat mapping and assessment of condition; stream flow measurements; survey of stream cross-sectional profile; and development of instream flow recommendations.

### **Project Elements:**

- Recommended Instream Flows
- Habitat Assessment
- Water Quality
- Channel Morphology
- Macroinvertebrate Community Assessment
- Hydrology
- Fisheries



The approach developed by R2 for establishing instream flows integrated many of the best attributes of several different methodologies. This approach allowed the methods and accompanying data analyses to be tailored to fit site specific conditions to meet specific flow needs based on stream channel configuration, hydrology, resource sensitivity, identified limiting factors, and stakeholder concerns.

R2 helped the Planning Unit establish objectives for establishing stream flows and identifying stakeholder needs and prepared the Steps A-C for implementing the instream flow study under an Ecology Supplemental Grant.