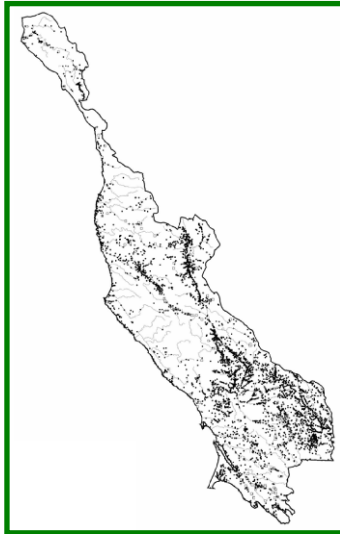




# North Coast Instream Flow Policy: Scientific Basis and Development of Alternatives Protecting Anadromous Salmonids

## Coastal Northern California

In May 2006, R2 Resource Consultants (R2) was contracted as part of a team by the California State Water Resources Control Board to help



develop the North Coast Instream Flow Policy, a policy for maintaining instream flows in coastal streams from the Mattole River to San Francisco, and in coastal streams entering northern San Pablo Bay. R2 was

responsible for evaluating the technical basis and rationale behind the draft “Guidelines for Maintaining Instream Flows to Protect Fisheries Resources Downstream of Water Diversions in Mid-California Coastal Streams,” which were developed by the California Department of Fish and Game (DFG) and National Marine Fisheries Service (NMFS) in 2002.

The technical evaluation included identification and analysis of possible alternative criteria

### Project Elements:

- Instream Flow
- Water Rights
- Hydrology
- Geomorphology
- Water Quality

and/or refinements to the Draft Guidelines that might afford a higher level of protectiveness to anadromous salmonids at the regional level. Alternatives focused on the diversion season, instream flow diversion rates, and restrictions on barriers to flow and fish passage.

Policy element alternative criteria were assessed for protectiveness by identifying their effects on important components of anadromous salmonid habitat, including: upstream passage, spawning and incubation, juvenile winter rearing, smolt outmigration, channel and riparian maintenance, and estuarine habitat and connectivity to the Pacific Ocean.



In addition to reviewing existing literature and data related to the flow requirements of anadromous salmonid habitat, physical and hydraulic cross-sectional data were collected from 13 streams within the Policy area in late summer of 2006. These data were used to specifically assess the effects of flow-related elements on anadromous salmonid upstream passage and spawning habitat availability in small streams to supplement data collected in larger canals.