

# QUEMADA STREAM RESTORATION: A SANTA ROSA ISLAND PERENNIAL STREAM

Steven T. Ortega<sup>1</sup> and Yvonne Marlin<sup>2</sup>

Channel Islands National Park, 1901 Spinnaker Dr., Ventura, CA 93001

<sup>1</sup>(805) 658-5784, FAX (805) 658-5798, E-mail: steve\_ortega@nps.gov

<sup>2</sup>(805) 658-5783, FAX (805) 658-5798, E-mail: yvonne\_marlin@nps.gov

## ABSTRACT

Up until August of 1998, cattle grazing had occurred on Santa Rosa Island since 1902. Monitoring conducted by Park biologists, and others concluded that cattle grazing was impacting the proper functioning condition of the riparian areas on Santa Rosa Island (Rosenlieb et al. 1995). To address this issue, and others, the park prepared a comprehensive Resource Management Plan (RMP) (Channel Islands National Park 1997) which identified actions that would guide existing uses to meet environmental laws and National Park Service (NPS) resource standards. The RMP identifies the need to implement active measures to restore proper functioning conditions within riparian areas on Santa Rosa Island. To meet this need, the park submitted a riparian restoration proposal (Santa Rosa Riparian Restoration Proposal 8/97) to the NPS Water Resource Division (WRD), who subsequently funded the proposal for \$49,000 for fiscal years 1998-1999.

The riparian restoration plan described four activities that would be accomplished during this funding period. These activities include: Watershed and Channel Characterization; Propagation of Local Native Plant Materials; Riparian Planting; and Monitoring.

Watershed and Channel Characterization: Completed both Level I and Level II characterization of the Quemada Stream system using Rosgen (1995) stream characterization techniques.

Propagation of Local Native Plant Materials (ongoing): Using mainland and on-island nursery facilities Park

staff propagated approximately 3,000 local native riparian plants.

Riparian Planting: The 3,000 local native plants propagated by Park staff will be planted in the Spring of 1999.

Monitoring (ongoing): Monitoring is focusing on two main components: 1) Changes in vegetation; and 2) Changes in channel morphology. Baseline vegetation monitoring (existing condition) was completed in November 1998. Stream cross-sections will be established in the Spring of 1999 to monitor changes in channel morphology.

## LITERATURE CITED

- Channel Islands National Park. 1997. Resources management plan for improvement of water quality and conservation of rare species and their habitats on Santa Rosa Island. Final Environmental Impact Statement. Channel Islands National Park, Ventura, CA.
- Rosenlieb, G., B. Jackson, C. Sellgren, J. Wolf, J. Wagner, J. Reiner, K. McEachern, and D. Pritchard. 1995. Federal interagency riparian assessment and recommendations for achieving water quality management goals – Santa Rosa Island, Channel Islands National Park. Technical Report NPS/NRWRD/NRTR-98/202. National Park Service – Water Resources Division, Fort Collins, CO.
- Rosgen, D. 1996. Applied River Morphology. Printed Media Companies, Minneapolis, MN.