
**Rio Grande, La Canova
Bank Protection Project**
Location: Rio Arriba County, NM
Client: USBR Albuquerque Area Office

Contact Information:

David Cline, PE
Tetra Tech Inc.
1925 Post Alley
Seattle, WA 98101
206.728.9655 x112
email: david.cline@tetratech.com

The La Canova project involved site assessment and design of a bioengineered bank stabilization feature on the Rio Grande, near Velarde, NM. The project need is to protect a steep eroding bank, with dying cottonwoods, along an irrigation canal and county road. The site was experiencing active lateral erosion from the river, as well as surface erosion and rilling from overland flows. Tetra Tech Inc. provided geomorphologic, hydraulic, geotechnical, civil design, and environmental services in developing a design solution for the client. Field data collection, site assessment, conceptual designs, preferred alternative selection, and final design plans and specifications were provided to the client in an expedited project period of three months. The preferred alternative is a composite bank structure using rock toe protection up to the ordinary high water mark and BioD Block – 400 series for the upper portion of the bank, with native riparian and upland plantings. Soil treatments included mixing of compost, topsoil and water saving polymers to condition the soils for landscape and planting treatments.

A spatially distributed plant assemblage was specified to mimic the natural species distribution found along the bankline. Construction started in Feb. 2005 and allows for the dormant planting of cottonwood and willow poles. Subsequent planting of the upper terraces (BioD Blocks) is planned for the rainy season in late summer, July and August, 2005.

