

WATERSHED

GRAPE CREEK WATER QUALITY PROJECT

Conducted by: Custer Conservation District

On the Web:

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Project Partners: USDA National Resources Conservation Service; Colorado State Conservation Board; U.S. Fish and Wildlife Service, Westcliffe High School

Contract Period: 2001-2004

NPS Funding: \$ 72,000

Matching Funds: \$146,828

Grape Creek, a tributary to the Arkansas River has been threatened by pollution, sedimentation and increasing water temperatures, among other problems. This project was designed to curtail those threats and bring the stream back to its optimal quality by reducing sedimentation, erosion and nitrate loading.

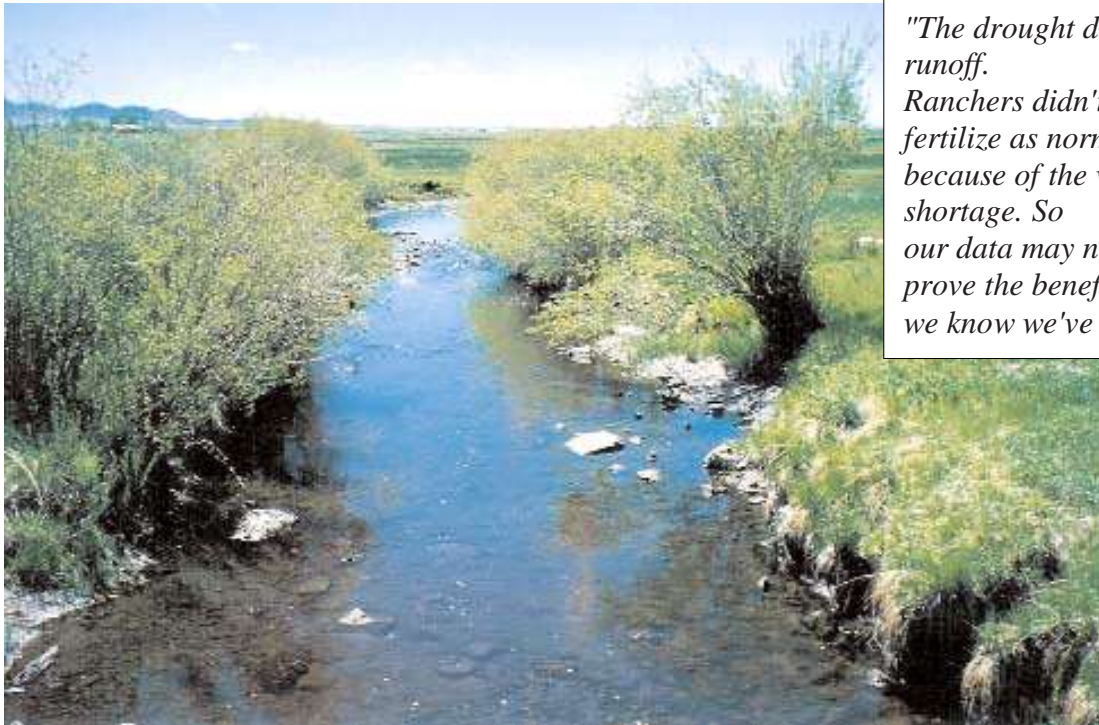
The project identified and employed BMPs (Best Management Practices), under the guidance of National Resources Conservation Service (NRCS) personnel. After BMP selection, a cost-share program was developed to fund conservation improvements with area ranchers on a 60-40 cost basis.

The NRCS helped landowners install irrigation pipe, headgates, troughs, fencing, wells and buried pipelines. Along with livestock watering facilities, these BMPS all enhance and protect water quality and preserve water quantity.

Livestock watering facilities were developed away from the stream and areas of streambank were fenced to keep cattle away from eroding banks.



At the same time, with technical assistance from the U.S. Fish and Wildlife Service, project participants built J-hooks in the stream to direct channel flow away from erosive banks.



"The drought dried up runoff. Ranchers didn't fertilize as normal because of the water shortage. So our data may not prove the benefits we know we've attained,

They also planted willow shoots to stabilize stream banks with help from the Westcliffe High School science class.

So far, some 118 structures have been installed; two wells drilled; 6,500 feet of pipe laid; over 13,000 feet of fence installed; one solar pump and three water tanks completed. The improvements have helped ranchers to improve irrigation and pasture management thereby protecting stream banks and water quality.

Part of the monitoring was to involve the high school science class in sampling five stream stations through the national "River Watch" program. However, River Watch lost funding and the group wound up monitoring only one station.