had declined and increased in temperature and sediment load. Spawning and rearing habitat for the threatened Lahontan cutthroat was severely degraded.

In 1974 the BLM attempted to demonstrate riparian area restoration by simply reducing grazing in the allotment. However, even reduced grazing pressure prevented substantial recovery of the degraded riparian area. In addition, the agency was unable to prevent unauthorized grazing.

In 1976 the grazing permit for the allotment was relinquished by the permittee. The BLM used the opportunity to fence most of the creek and much of the watershed to exclude livestock.

Riparian vegetation responded dramatically to rest from grazing and installation of a few instream structures to improve trout habitat by raising water levels and reducing erosion. Native perennial grasses increased throughout the fenced area. Previously decadent aspen groves expanded. Curlleaf mountain mahogany began reproducing within the fenced area while outside the fence almost no seedlings survived grazing.

Streambanks stabilized and erosion was reduced. The stream channel narrowed and deepened. Summer streamflow increased 400%, and depth of water increased 50%. Water temperatures and sediment load decreased. The improvement in fish habitat resulted in a significant increase in the threatened Lahontan cutthroat population.

■ Simply reducing the number of livestock in the allotment did not allow substantial recovery of the severely degraded riparian area and stream channel; livestock still overused the riparian area.

Mahogany Creek, Fall of 1985.

■ Even where riparian deterioration was severe and a threatened fish species was at stake, it was only after the grazing permit for the allotment was relinquished that the BLM was able to fence most of the creek and adjacent uplands.

■ Long-term rest from grazing was required to overcome the effects of long-term improper grazing.

■ Even under these long-standing, severely deteriorated conditions, ten years of rest resulted in dramatic improvement of riparian and upland vegetation, and increased the quality and quantity of summer streamflow.

■ Achieving similar improvements in the entire Mahogany Creek watershed would require a cooperative effort by numerous federal, tribal and private landowners and grazing permittees.