IMPROPER *livestock grazing can result in what are for all practical purposes permanent changes in the landscape and loss of long-term productivity.*

This stream in northern Nevada is representative of conditions affecting a large number of western streams and riparian areas. It once was lined with aspen and willow, flowed year-round and supported native cutthroat trout.

Deterioration of upland vegetation accelerated runoff. Loss of riparian vegetation weakened streambanks. The stream downcut through 15-20 feet of fine material deposited over thousands of years to a layer of coarse, porous material and now disappears into the ground by mid summer.

The once-productive riparian area eroded away or dried out with lowering of the water table. Aspen, willow, forbs and grasses were replaced by sagebrush and other less desirable vegetation.

Stemming the ongoing degradation of streams in this condition must start with improving upland conditions to reduce the erosive power of runoff. Restoring productive riparian areas will be a long, slow process.

Many streams throughout the West are littered with the remains of what were once vigorous aspen groves. Aspen reproduce by sending up shoots from roots. If these young plants are constantly grazed off, eventually the parent trees will die of old age and aspen will disappear from the site.

This transformation of riparian area vegetation is accelerated when deteriorated upland conditions result in downcut or widened stream channels, lowered water tables and drying out of riparian areas.