Big Creek — Utah

Big Creek rises from springs at about 8,000 feet elevation in the northeast corner of Utah on the Wasatch-Cache National

Forest and flows about twenty miles to the Bear River. Elevation in the case study area is about 6,600 feet. Precipitation averages approximately seventeen inches per year and comes mainly as snow. Peak run-off normally occurs in May or early June.

Beginning about fifteen miles above its confluence with the Bear River, Big Creek flows through land administered by the Bureau of Land Management for about five miles. Downstream, and for about three miles immediately upstream, the creek flows through private land. The upper two miles of the stream flows through land managed by the Forest Service.

The area managed by the BLM traditionally has been grazed continuously May-October. Consequently, riparian vegetation, streambanks and water quality were severely degraded.

In the late 1960s the BLM proposed a 1.5 mile riparian improvement project. The objectives were to improve fish habitat and overall riparian conditions, and to demonstrate for livestock operators the rate of recovery and vegetative potential of the riparian area. The proposal was resisted by local livestock interests and the area temporarily fenced off from livestock was reduced to 0.5 mile of streambank. Fish habitat improvement structures were placed in the stream within and outside the fenced area in 1970 and 1971.

Grazed area immediately below the Big Creek riparian protection fence, September 1988.

Big Creek inside fence, August 1987. Note heavy sediment load from deteriorated upstream watershed.

Despite occasional unauthorized grazing within the fenced area, riparian vegetation and the stream responded dramatically to rest from grazing.