

the upstream part of the reach, the frequency of sloughing cut-banks drops off, indicative of the potential role of woody plants in strengthening streambanks. The overall bank erosion potential of the reach is considered to be major (Hotspots 18-22, Table 4-7).



Figure 4-15. A typical reach rated “high” for fine-sediment contribution due to high silt containing banks and extensive failure length. The upper-meadow reach of the Upper Truckee River.

The river meanders 3.0 km past the golf course. It is typically gravel bedded with 1.5 to 3 meter-high banks of silt and fine sand layers overlying layers of coarse sand and gravel. Short grass is the dominant vegetation. Outside bends of non-cohesive materials have become undercut and are sloughing off. Some of the fine-grained bank materials are cemented thereby making the banks more resistant to erosion. Several different bank protection measures had been implemented. Rootwads, boulder sized rip-rap, and buried logs have all been placed along banks to reduce toe erosion and undercutting. The success of the protection measures is questionable due to the amount of bank scour taking place around many of the installations. The overall bank erosion potential of the golf course reach is considered to be intermediate. (Hotspots 23-28, Table 4-7).

The meandering pool riffle reach from the golf course upstream to the Highway 50/89 bridge (Hotspots 29 to Highway 50 bridge, Table 4-7) has been rip-rapped and re-vegetated starting in 1958 as part of a stream bank erosion control project. This is an aggradational reach with an active channel ranging from 20 to 40 m-wide where point bars take up two-thirds of the width (Figure 4-16). Young willows and pines are starting to grow high on the bars indicating they have only recently started to stabilize. Large woody debris partially exposed in sand/gravel bars indicates recent channel migration. The large woody debris also influences the pools and riffle formation by controlling grade whenever a log blocks a large portion of the channel. Bed