How much of the riparian area has bare ground caused by human activity?

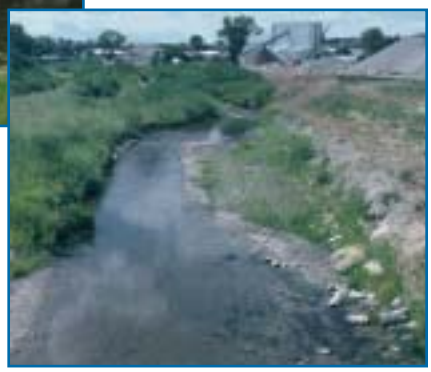
Bare ground is unprotected soil that results from our activities. It's an opportunity for invasion by weed and disturbance species into the vacuum caused by those activities. Bare ground represents a loss of vegetation to filter and buffer sediment, less reduction in energy (hence more wind and water erosion) and a decreased ability to allow water to infiltrate into the aquifer. Sediment deposited during a flood is a natural event and an indication the riparian area is doing what it should- trapping this material.

Human land uses that can cause bare ground include livestock grazing, cultivation, recreation, urban development, roads/trails, timber harvest and industrial activities. Significant bare ground caused by human activity indicates a deterioration of riparian health.

These riparian areas are very susceptible to erosion and the bare soil is a place for weeds to establish. Several riparian functions are impaired.

Has the streambank or shoreline been altered by human activity?

This shoreline has been altered through the clearing of trees.



Alteration can be subtle, like the infilling of the floodplain and the creation of a new, higher bank which doesn't allow the stream access to it's floodplain.

Stable streambanks and shorelines maintain channel configuration, integrity and bank shape. When streambanks and shorelines are physically altered, erosion can increase, moving channel and bank materials, water quality can deteriorate, and instability may increase within the reach and downstream.

Altering the shoreline or streambank vegetation can also have an impact on health. Removal of woody species or emergent plants (e.g. cattails) can increase erosion and disrupt nutrient recycling. Planting of non-native species or allowing invasion of weeds and disturbance-caused plants can inhibit native, deep-rooted ones.

Bank alteration can result from livestock hoof shear, livestock trails/watering sites, recreational trails, flood/erosion control methods, irrigation diversions/return flows, timber harvest, crossings/fords, bridges/culverts, landscaping and channelization/drainage.