

**Stream Visual Assessment
Field Form**

Landowner _____ Evaluators _____ Date _____

Stream _____ Reach Location _____ Reach ID# _____

Stream Order _____ Flow Regime: Ephemeral _____ Intermittent _____ Perennial _____

Bed Form _____

Adjacent Land Use (%)

Row Crop _____ Hay Land _____ Grazing/Pasture _____ Old Field _____ Forest _____ Residential _____

Barns/Sheds _____ Feed Lots _____ Roads _____ Other _____

Channel Morphology

Channel Width:

Riffle - Base Flow _____ Bankfull _____ Top of Bank _____

Pool - Base Flow _____ Bankfull _____ Top of Bank _____

Channel Depth:

Riffle - Base Flow _____ Bankfull _____ Top of Bank _____

Pool - Base Flow _____ Bankfull _____ Top of Bank _____

Active Floodplain: Both sides of channel _____ One side of channel _____ No active floodplain _____

Dominant Bed Material:

Bed Rock _____ Boulder _____ Cobble _____ Gravel _____ Sand _____ Silt _____ Clay _____

Representative Riffle Particle Size Distribution:

D16mm _____ D35mm _____ D50 mm _____ D65mm _____ D84 _____ D95mm _____

(Particle size distribution of representative riffles will be determined by conducting a Wolman Pebble Count. This includes measuring and recording the size in millimeters of 100 particles collected along transects in the riffle).

Channel Condition

Riparian Vegetation: Type and Condition

Bare Soil or crop residue, Poor ____ Row crops, Poor ____ Pasture, grazed - Poor, Fair or Good ____
Mowed Grass, Poor, Fair ____ Meadow – grass protected from grazing, Good ____
Brush-weeds-grass, Poor, Fair, Good ____ Grass, shrubs, scattered trees, Poor, Fair, Good ____
Woods-trees & shrubs, Poor, Fair, Good ____ Other _____

Width of Undisturbed Buffer - Left Bank _____ Right Bank _____

Depositional Features:

No sand or gravel bars ____ Point bars, on inside bends ____ Few lateral or mid-channel bars ____
Many lateral or mid-channel bars ____ Other _____

Debris/Channel Blockages: Type and Percentage of Active Channel

None ____ Infrequent, debris small floatable material ____ Moderate more frequent small-moderate-sized material (limbs, branches and small logs) 10% or less of active channel ____ Numerous, significant build-up of medium-large debris (large limbs, logs, portions of trees) 10-30% of active channel ____ Extensive, debris dams of predominantly large material (large limbs, logs, trees) 30-50% of active channel ____ Dominating, Large, continuous debris jams, over 50% of active channel, diverting flow into floodprone areas ____ Beaver Dams ____ Low head dams, diversions, etc. _____

Channel Alterations:

Natural Channel, No Alterations ____ Channelized/Straightened ____ Earthen Berms ____
Rip-Rapped ____ Walls ____ Dam ____ Water Withdrawal Structure ____ Other ____

Streambank Stability:

Stable, banks low, well vegetated, no erosion ____ Moderately Stable, banks low, generally well vegetated, minor localized erosion ____ Moderately Unstable, low-moderate bank height, outside bends actively eroding, undercut banks, leaning or falling trees ____ Unstable, moderate-high bank height, outside bends and some straight reaches actively eroding, severely undercut banks, leaning and fallen trees ____ Unstable, streambanks trampled by livestock _____

Moderately unstable and Unstable Reaches will warrant conducting a BANCS Evaluation of eroding banks to predict future streambank erosion. The evaluation includes:

- Bank Erosion Hazard Index (BEHI)
- Near Bank Stress (NBS)

Utilize the BANCS Field Forms to record the BANCS data.

Streambed Stability:

Stable, no aggradation or degradation ____ Moderately unstable, some bed degradation with few active head-cuts ____ Moderately unstable, some aggradation ____ Unstable, bed degradation throughout with numerous active head-cuts ____ Unstable, with widespread aggradation ____

In-Stream Habitat Condition

Percent Shading along Stream Reach:

Greater than 75% of water surface shaded ____ Greater than 50% of water surface shaded ____
20 to 50% of water surface shaded ____ Less than 20% of water surface shaded ____

In-Stream Fish Cover:

Cover Types: Logs/large woody debris ____ Deep pools ____ Overhanging vegetation ____
Boulders/cobble, riffles ____ Undercut banks ____ Thick root mats ____ Dense macrophyte beds ____
Isolated/backwater pools ____ Other ____

Riffle Embeddedness:

Gravel or cobble particles are < 20% embedded ____ Gravel or cobble particles are 20 to 30%
embedded ____ Gravel or cobble particles are 30 to 40% embedded ____ Gravel or cobble particles
are >40% embedded ____ Riffle is completely embedded ____

Pools:

Deep and shallow pools abundant; greater than 30% of the pool bottom is obscure due to depth, or the
pools are at least 4 feet deep ____ Pools present, but not abundant; from 10 to 30% of the pool
bottom is obscure due to depth, or the pools are at least 2.5 feet deep ____ Pools present, but
shallow; from 5 to 10% of the pool bottom is obscure due to depth, or the pools are less than 2.5 feet
deep ____ Pools absent, or the entire bottom is discernible ____

Insect/Invertebrate Habitat:

Cover Types: Fine woody debris ____ Submerged logs ____ Leaf packs ____ Undercut banks
____ Cobble, boulders, coarse gravel ____ Aquatic vegetation ____ Other ____

Macroinvertebrates Observed:

Community dominated by Group I or intolerant species with good species diversity. Examples include
caddisflies, mayflies, stoneflies, hellgrammites ____ Community dominated by Group II or facultative
species, such as damselflies, dragonflies, aquatic sowbugs, blackflies, crayfish ____ Community
dominated by Group III or tolerant species, such as midges, craneflies, horseflies, leeches, aquatic
earthworms, tubificid worms ____
Very reduced number of species or near absence of all macroinvertebrates ____

Water Quality Conditions

Water Appearance:

Very clear, or clear but tea-colored; objects visible at or near pool bottom (less if slightly colored); no oil sheen on surface; no noticeable film on submerged objects or rocks _____ Occasionally cloudy, especially after storm

event, but clears rapidly; objects visible at or near ½ pool depth; may have slightly green color; no oil sheen on water surface _____ Considerable cloudiness most of the time; objects visible at or near water surface; slow sections may appear pea-green; bottom rocks or submerged objects covered with heavy green or olive-green film or moderate odor of ammonia or rotten eggs _____ Very turbid or muddy appearance most of the time; objects visible to depth < 0.5 ft; slow moving water may be bright-green; other obvious water pollutants; floating

algal mats, surface scum, sheen or heavy coat of foam on surface or strong odor of chemicals, oil, sewage, other pollutants _____

Nutrient Enrichment:

Clear water along entire reach; diverse aquatic plant community includes low quantities of many species of macrophytes; little algal growth present _____ Fairly clear or slightly greenish water along entire reach; moderate algal growth on stream substrates _____ Greenish water along entire reach; overabundance of lush green macrophytes; abundant algal growth, especially during warmer months _____ Pea green, gray, or brown water along entire reach; dense stands of macrophytes clog stream; severe algal blooms create thick algal mats in stream _____