UNIFIED STREAM METHODOLOGY

Photographs

1.1.2 Channel Condition Photographs

Optimal Channel Condition: This channel is stable with bankfull benches and has access to its floodplain.

Optimal Channel Condition: This channel has little or no incision and /or unprotected banks along both banks.

Suboptimal Channel Condition: Depositional features are present and most appear to be contributing to stability. This stream has access to bankfull benches, or newly developed floodplains along portions of the reach.

Suboptimal Channel Condition: The majority of both banks are stable. Vegetative surface protection is prominent along 60-80% of the banks.

Marginal Channel Condition: This channel is incised, but to a lesser degree than a *Severe* or *Poor* channel condition.

Marginal Channel Condition: The stream has some vertical banks, but other portions have begun to narrow. The streambed has substantial sediment deposition.

Poor Channel Condition: This channel is incised and appears to widening rather than down cutting.

Poor Channel Condition: This channel is aggrading and has an excessive sediment supply that is filling the channel with alluvium.

Severe Channel Condition: This channel is deeply incised and vertically and laterally unstable.

Severe Channel Condition: This channel is deeply incised and vertically and laterally unstable.

1.2.2 Riparian Buffer Parameter Photographs

Optimal Riparian Buffer Category: The riparian buffer has a tree stratum (dbh > 3 inches) present with > 60% tree canopy cover.

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High Marginal: The riparian buffer is nonmaintained, dense herbaceous vegetation with a shrub layer.

High Poor: The riparian buffer is mowed and maintained area.

High Poor: The riparian buffer is a grazed pasture area.

Low Poor: The riparian buffer has a building and roadway located within it. The building and roadway score low poor.

Low Poor: The riparian buffer is an active feed lot and /or denuded area.

1.3.2 In-stream Habitat Parameter Photographs

Optimal: Physical elements that enhance a high gradient stream's ability to support aquatic organisms are present in greater than 50% of the reach.

Suboptimal: Physical elements that enhance a stream's ability to support aquatic organisms are present in 30-50% of the reach.

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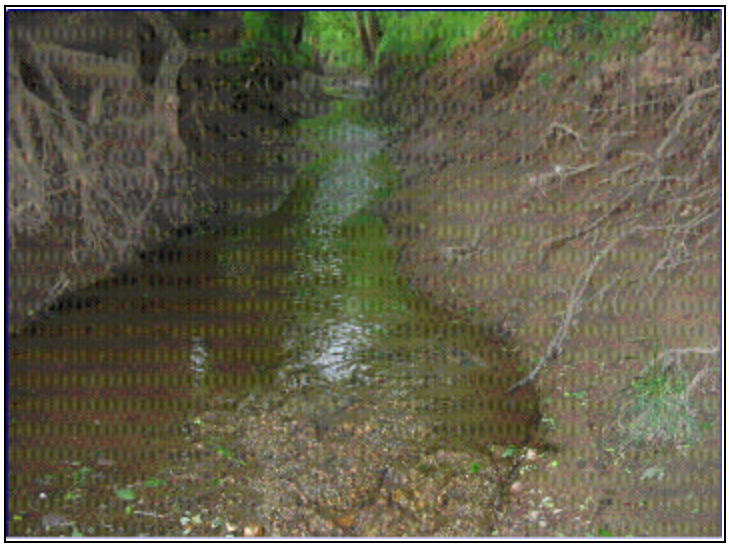
Marginal: Physical elements that enhance a stream's ability to support aquatic organisms are only present in 10-30% of this low gradient reach. The pool substrate is composed of mud, sand, or clay.



Poor: Physical elements that enhance a stream's ability to support aquatic organisms is present in less than 10% of this reach. The substrate is homogeneous and has little variability.

Poor: Physical Elements that enhance a stream's ability to support aquatic organisms is present in less than 10% of this reach. The substrate is homogeneous.

1.4.2 Channel Alteration Parameter Photographs

Straightening of channel or other channelization.

Riprap along streambank or in streambed.

Straightening of Channel, Channelization, Constriction, and constrictions to stream channel or immediate flood prone area.

Stream crossings (bridges and bottomless culverts) and constrictions to stream channel or immediate flood prone area.

Stream crossings (bridges and bottomless culverts).

2.1 Impact Factor Photographs

Severe: Twin Arch Culverts with concrete bottom.

Severe: Hardening and channelization of stream bed.

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Floodplain culverts are encouraged and may be assessed as a minimization measure or compensation for other impacts on the same stream in the vicinity of the bridge at the agency personnel's discretion.

5.1.1 Restoration Photographs

(The Nature Conservancy)

Priority 1 Restoration: This stream was relocated and reconnected to its floodplain using reference reach info to design proper dimension, pattern, and profile.

(Kimley-Horn and Associates, Inc.)

Priority 1 Restoration: This stream was relocated and reconnected to its floodplain using reference reach info to design proper dimension, pattern, and profile.

5.2.1 Enhancement Photographs

(N.C. State University)

Enhancement with Instream Structures, Creating Bankfull Benches, and Streambank Planting: This project improved the channel profile and cross-section through installing grade control structures and creating a bankfull bench.

(Wetland Studies and Solutions, Inc.)

Lay Back Banks, Bioremediation Techniques and Streambank Planting: This project Improved stream bank stability by laying back the banks, installing coir logs, and planting the banks.

5.3.1 Riparian Areas Photographs

(The Nature Conservancy)

Riparian buffer planting.