

CREEKSIDE AT CABIN BRANCH STREAM RESTORATION PLAN

Stream Restoration Outline (See Individual Sheets for Detailed Descriptions of Work)

A. Tributary 311

- 1. Areas 1 & 2 (850 LF)
 - a. Work between Area 1 and Area 2 to be connected to provide stable transition.
 - b. Large head-cuts that have formed in the downstream of extent of Area 1 will dictate the elevations of any work within the channel.
- 2. Area 3 (90 LF)
 - a. Stabilize low crossing.
 - b. Remove trash/debris between Area 2 and Area 3.
 - c. Falling springhouse to be removed and stable transition provided to its connection to the tributary. Existing conditions are hazardous.

B. Tributary 110

- 1. Areas 4 & 5 (140 LF)
 - a. Remove trash and debris from within and around stream channel at Areas 4 & 5.
 - b. Work between Areas 4 and 5 will need to connect in order to stabilize the channel in this area. Multiple head-cuts in area 5 will dictate the elevations of this channel work.
- 2. Area 6 (90 LF)
 - a. Stabilize/abandon ford crossings of tributary.
- 3. Area 7 (60 LF)
 - a. Hand-remove old trees downstream of Area 6.
- 4. Area 8 (60 LF)
 - a. Stabilize/abandon ford crossing.
- 5. Area 9 (60 LF)
 - a. Remove trash and debris, including a collapsed shelter/trailer home.

C. All Tributaries

- a. Stabilize historic ford crossing.

BEST MANAGEMENT PRACTICES FOR WORK IN NORTIDA WETLANDS

1. Place heavy equipment on mats or suitably operate the equipment to prevent damage to the nontida wetlands.
2. Use previously excavated material as backfill unless it contains waste metal products, unlighted material is not suitable for use as backfill.
3. All excess fill, spoil material, debris, and construction material shall be disposed of outside the nontida wetland, twenty (25) foot buffer area, and the one hundred (100) year floodplain, and in a location and manner which does not adversely impact surface or subsurface water flow into or out of the nontida wetlands on trailers or structures, staging areas, and stockpiles shall not be located within the nontida wetlands, buffer areas or the one hundred (100) year floodplain unless specifically approved by the Maryland Department of the Environment, Nontida Wetlands and Waterways Division.
4. All stabilization of disturbed areas within nontida wetlands and buffer areas shall be with the following practices: remove any grass (tolerant of trampling), mow (leave a mulch layer), reseed with native species, and/or plant native species. The seed and/or native species shall be of the same species as the disturbed area while also allowing for the voluntary revegetation of natural wetland species. Other non-persistent vegetation may be acceptable, but must be approved by the Maryland Department of the Environment, Nontida Wetlands and Waterways Division, prior to use. Kentucky 31 fescue shall not be utilized in the wetland or buffer areas. Seed and mulch disturbed areas to reduce erosion after construction.
5. Reclaim any temporarily impacted areas by restoring to existing grades and elevations, and by performing appropriate vegetative stabilization. Wetlands and adjoining buffer areas shall not be mowed or otherwise managed to prevent the re-establishment of woody vegetation.
6. To protect important aquatic species, in-stream work is prohibited by the classification of the stream.
7. Adhere to time-of-year restrictions as required by the Maryland Department of the Environment.
8. **STABILIZATION NOTE:** Stabilization practices on all projects must be in compliance with the requirements of COMAR 26.17.1.08 G regulations by January 9, 2013, regardless of when an erosion and sediment control plan was approved.
9. Following initial soil disturbance or redisturbance, permanent or temporary stabilization must be completed within:
 - a) 30 days for areas with a 3% or less slope, and
 - b) 75 days for areas with a 3% to 10% slope, and
 - c) 90 days for areas with a 10% to 15% slope, and
 - d) 180 days for areas with a 15% or greater slope, and
 - e) 360 days for areas with a 3% or less slope, and
 - f) 720 days for areas with a 3% to 10% slope, and
 - g) 1080 days for areas with a 10% to 15% slope, and
 - h) 2160 days for areas with a 15% or greater slope, and
 - i) 3600 days for areas with a 3% or less slope, and
 - j) 7200 days for areas with a 3% to 10% slope, and
 - k) 10800 days for areas with a 10% to 15% slope, and
 - l) 21600 days for areas with a 15% or greater slope, and
 - m) 36000 days for areas with a 3% or less slope, and
 - n) 72000 days for areas with a 3% to 10% slope, and
 - o) 108000 days for areas with a 10% to 15% slope, and
 - p) 216000 days for areas with a 15% or greater slope, and
 - q) 360000 days for areas with a 3% or less slope, and
 - r) 720000 days for areas with a 3% to 10% slope, and
 - s) 1080000 days for areas with a 10% to 15% slope, and
 - t) 2160000 days for areas with a 15% or greater slope, and
 - u) 3600000 days for areas with a 3% or less slope, and
 - v) 7200000 days for areas with a 3% to 10% slope, and
 - w) 10800000 days for areas with a 10% to 15% slope, and
 - x) 21600000 days for areas with a 15% or greater slope, and
 - y) 36000000 days for areas with a 3% or less slope, and
 - z) 72000000 days for areas with a 3% to 10% slope, and
 - aa) 108000000 days for areas with a 10% to 15% slope, and
 - ab) 216000000 days for areas with a 15% or greater slope, and
 - ac) 360000000 days for areas with a 3% or less slope, and
 - ad) 720000000 days for areas with a 3% to 10% slope, and
 - ae) 1080000000 days for areas with a 10% to 15% slope, and
 - af) 2160000000 days for areas with a 15% or greater slope, and
 - ag) 3600000000 days for areas with a 3% or less slope, and
 - ah) 7200000000 days for areas with a 3% to 10% slope, and
 - ai) 10800000000 days for areas with a 10% to 15% slope, and
 - aj) 21600000000 days for areas with a 15% or greater slope, and
 - ak) 36000000000 days for areas with a 3% or less slope, and
 - al) 72000000000 days for areas with a 3% to 10% slope, and
 - am) 108000000000 days for areas with a 10% to 15% slope, and
 - an) 216000000000 days for areas with a 15% or greater slope, and
 - ao) 360000000000 days for areas with a 3% or less slope, and
 - ap) 720000000000 days for areas with a 3% to 10% slope, and
 - aq) 1080000000000 days for areas with a 10% to 15% slope, and
 - ar) 2160000000000 days for areas with a 15% or greater slope, and
 - as) 3600000000000 days for areas with a 3% or less slope, and
 - at) 7200000000000 days for areas with a 3% to 10% slope, and
 - au) 10800000000000 days for areas with a 10% to 15% slope, and
 - av) 21600000000000 days for areas with a 15% or greater slope, and
 - aw) 36000000000000 days for areas with a 3% or less slope, and
 - ax) 72000000000000 days for areas with a 3% to 10% slope, and
 - ay) 108000000000000 days for areas with a 10% to 15% slope, and
 - az) 216000000000000 days for areas with a 15% or greater slope, and
 - ba) 360000000000000 days for areas with a 3% or less slope, and
 - bb) 720000000000000 days for areas with a 3% to 10% slope, and
 - bc) 1080000000000000 days for areas with a 10% to 15% slope, and
 - bd) 2160000000000000 days for areas with a 15% or greater slope, and
 - be) 3600000000000000 days for areas with a 3% or less slope, and
 - bf) 7200000000000000 days for areas with a 3% to 10% slope, and
 - bg) 10800000000000000 days for areas with a 10% to 15% slope, and
 - bh) 21600000000000000 days for areas with a 15% or greater slope, and
 - bi) 36000000000000000 days for areas with a 3% or less slope, and
 - bj) 72000000000000000 days for areas with a 3% to 10% slope, and
 - bk) 108000000000000000 days for areas with a 10% to 15% slope, and
 - bl) 216000000000000000 days for areas with a 15% or greater slope, and
 - bm) 360000000000000000 days for areas with a 3% or less slope, and
 - bn) 720000000000000000 days for areas with a 3% to 10% slope, and
 - bo) 1080000000000000000 days for areas with a 10% to 15% slope, and
 - bp) 2160000000000000000 days for areas with a 15% or greater slope, and
 - bq) 3600000000000000000 days for areas with a 3% or less slope, and
 - br) 7200000000000000000 days for areas with a 3% to 10% slope, and
 - bs) 10800000000000000000 days for areas with a 10% to 15% slope, and
 - bt) 21600000000000000000 days for areas with a 15% or greater slope, and
 - bu) 36000000000000000000 days for areas with a 3% or less slope, and
 - bv) 72000000000000000000 days for areas with a 3% to 10% slope, and
 - bw) 108000000000000000000 days for areas with a 10% to 15% slope, and
 - bx) 216000000000000000000 days for areas with a 15% or greater slope, and
 - by) 360000000000000000000 days for areas with a 3% or less slope, and
 - bz) 720000000000000000000 days for areas with a 3% to 10% slope, and
 - ca) 1080000000000000000000 days for areas with a 10% to 15% slope, and
 - cb) 2160000000000000000000 days for areas with a 15% or greater slope, and
 - cc) 3600000000000000000000 days for areas with a 3% or less slope, and
 - cd) 7200000000000000000000 days for areas with a 3% to 10% slope, and
 - ce) 10800000000000000000000 days for areas with a 10% to 15% slope, and
 - cf) 21600000000000000000000 days for areas with a 15% or greater slope, and
 - cg) 36000000000000000000000 days for areas with a 3% or less slope, and
 - ch) 72000000000000000000000 days for areas with a 3% to 10% slope, and
 - ci) 108000000000000000000000 days for areas with a 10% to 15% slope, and
 - cj) 216000000000000000000000 days for areas with a 15% or greater slope, and
 - ck) 360000000000000000000000 days for areas with a 3% or less slope, and
 - cl) 720000000000000000000000 days for areas with a 3% to 10% slope, and
 - cm) 1080000000000000000000000 days for areas with a 10% to 15% slope, and
 - cn) 2160000000000000000000000 days for areas with a 15% or greater slope, and
 - co) 3600000000000000000000000 days for areas with a 3% or less slope, and
 - cp) 7200000000000000000000000 days for areas with a 3% to 10% slope, and
 - cq) 10800000000000000000000000 days for areas with a 10% to 15% slope, and
 - cr) 21600000000000000000000000 days for areas with a 15% or greater slope, and
 - cs) 36000000000000000000000000 days for areas with a 3% or less slope, and
 - ct) 72000000000000000000000000 days for areas with a 3% to 10% slope, and
 - cu) 108000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cv) 216000000000000000000000000 days for areas with a 15% or greater slope, and
 - cw) 360000000000000000000000000 days for areas with a 3% or less slope, and
 - cx) 720000000000000000000000000 days for areas with a 3% to 10% slope, and
 - cy) 1080000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cz) 2160000000000000000000000000 days for areas with a 15% or greater slope, and
 - ca) 3600000000000000000000000000 days for areas with a 3% or less slope, and
 - cb) 7200000000000000000000000000 days for areas with a 3% to 10% slope, and
 - cc) 10800000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cd) 21600000000000000000000000000 days for areas with a 15% or greater slope, and
 - ce) 36000000000000000000000000000 days for areas with a 3% or less slope, and
 - cf) 72000000000000000000000000000 days for areas with a 3% to 10% slope, and
 - cg) 108000000000000000000000000000 days for areas with a 10% to 15% slope, and
 - ch) 216000000000000000000000000000 days for areas with a 15% or greater slope, and
 - ci) 360000000000000000000000000000 days for areas with a 3% or less slope, and
 - cj) 720000000000000000000000000000 days for areas with a 3% to 10% slope, and
 - ck) 1080000000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cl) 2160000000000000000000000000000 days for areas with a 15% or greater slope, and
 - cm) 3600000000000000000000000000000 days for areas with a 3% or less slope, and
 - cn) 7200000000000000000000000000000 days for areas with a 3% to 10% slope, and
 - co) 10800000000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cp) 21600000000000000000000000000000 days for areas with a 15% or greater slope, and
 - cq) 36000000000000000000000000000000 days for areas with a 3% or less slope, and
 - cr) 72000000000000000000000000000000 days for areas with a 3% to 10% slope, and
 - cs) 108000000000000000000000000000000 days for areas with a 10% to 15% slope, and
 - ct) 216000000000000000000000000000000 days for areas with a 15% or greater slope, and
 - cu) 360000000000000000000000000000000 days for areas with a 3% or less slope, and
 - cv) 720000000000000000000000000000000 days for areas with a 3% to 10% slope, and
 - cw) 1080000000000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cx) 2160000000000000000000000000000000 days for areas with a 15% or greater slope, and
 - cy) 3600000000000000000000000000000000 days for areas with a 3% or less slope, and
 - cz) 7200000000000000000000000000000000 days for areas with a 3% to 10% slope, and
 - ca) 10800000000000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cb) 21600000000000000000000000000000000 days for areas with a 15% or greater slope, and
 - cc) 36000000000000000000000000000000000 days for areas with a 3% or less slope, and
 - cd) 72000000000000000000000000000000000 days for areas with a 3% to 10% slope, and
 - ce) 108000000000000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cf) 216000000000000000000000000000000000 days for areas with a 15% or greater slope, and
 - cg) 360000000000000000000000000000000000 days for areas with a 3% or less slope, and
 - ch) 720000000000000000000000000000000000 days for areas with a 3% to 10% slope, and
 - ci) 1080000000000000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cj) 2160000000000000000000000000000000000 days for areas with a 15% or greater slope, and
 - ck) 3600000000000000000000000000000000000 days for areas with a 3% or less slope, and
 - cl) 7200000000000000000000000000000000000 days for areas with a 3% to 10% slope, and
 - cm) 10800000000000000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cn) 21600000000000000000000000000000000000 days for areas with a 15% or greater slope, and
 - co) 36000000000000000000000000000000000000 days for areas with a 3% or less slope, and
 - cp) 72000000000000000000000000000000000000 days for areas with a 3% to 10% slope, and
 - cq) 108000000000000000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cr) 216000000000000000000000000000000000000 days for areas with a 15% or greater slope, and
 - cs) 360000000000000000000000000000000000000 days for areas with a 3% or less slope, and
 - ct) 720000000000000000000000000000000000000 days for areas with a 3% to 10% slope, and
 - cu) 1080000000000000000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cv) 2160000000000000000000000000000000000000 days for areas with a 15% or greater slope, and
 - cw) 3600000000000000000000000000000000000000 days for areas with a 3% or less slope, and
 - cx) 7200000000000000000000000000000000000000 days for areas with a 3% to 10% slope, and
 - cy) 10800000000000000000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cz) 21600000000000000000000000000000000000000 days for areas with a 15% or greater slope, and
 - ca) 36000000000000000000000000000000000000000 days for areas with a 3% or less slope, and
 - cb) 72000000000000000000000000000000000000000 days for areas with a 3% to 10% slope, and
 - cc) 108000000000000000000000000000000000000000 days for areas with a 10% to 15% slope, and
 - cd) 216000000000000000000000000000000000000000 days for areas with a 15% or greater slope, and
 - ce) 3600 days for areas with a 3% or less slope, and
 - cf) 7200 days for areas with a 3% to 10% slope, and
 - cg) 10800 days for areas with a 10% to 15% slope, and
 - ch) 21600 days for areas with a 15% or greater slope, and
 - ci) 36000 days for areas with a 3% or less slope, and
 - cj) 72000 days for areas with a 3% to 10% slope, and
 - ck) 108000 days for areas with a 10% to 15% slope, and
 - cl) 216000 days for areas with a 15% or greater slope, and
 - cm) 3600 days for areas with a 3% or less slope, and
 - cn) 7200 days for areas with a 3% to 10% slope, and
 - co) 10800 days for areas with a 10% to 15% slope, and
 - cp) 21600 days for areas with a 15% or greater slope, and
 - cq) 36000 days for areas with a 3% or less slope, and
 - cr) 72000 days for areas with a 3% to 10% slope, and
 - cs) 108000 days for areas with a 10% to 15% slope, and
 - ct) 216000 days for areas with a 15% or greater slope, and
 - cu) 3600 days for areas with a 3% or less slope, and
 - cv) 7200 days for areas with a 3% to 10% slope, and
 - cw) 10800 days for areas with a 10% to 15% slope, and
 - cx) 21600 days for areas with a 15% or greater slope, and
 - cy) 36000 days for areas with a 3% or less slope, and
 - cz) 72000 days for areas with a 3% to 10% slope, and
 - ca) 108000 days for areas with a 10% to 15% slope, and
 - cb) 216000 days for areas with a 15% or greater slope, and
 - cc) 3600 days for areas with a 3% or less slope, and
 - cd) 7200 days for areas with a 3% to 10% slope, and
 - ce) 10800 days for areas with a 10% to 15% slope, and
 - cf) 21600 days for areas with a 15% or greater slope, and
 - cg) 36000 days for areas with a 3% or less slope, and
 - ch) 72000 days for areas with a 3% to 10% slope, and
 - ci) 108000 days for areas with a 10% to 15% slope, and
 - cj) 216000 days for areas with a 15% or greater slope, and
 - ck) 3600 days for areas with a 3% or less slope, and
 - cl) 7200 days for areas with a 3% to 10% slope, and
 - cm) 10800 days for areas with a 10% to 15% slope, and
 - cn) 21600 days for areas with a 15% or greater slope, and
 - co) 36000 days for areas with a 3% or less slope, and
 - cp) 72000 days for areas with a 3% to 10% slope, and
 - cq) 108000 days for areas with a 10% to 15% slope, and
 - cr) 216000 days for areas with a 15% or greater slope, and
 - cs) 3600 days for areas with a 3% or less slope, and
 - ct) 7200 days for areas with a 3% to 10% slope, and
 - cu) 10800 days for areas with a 10% to 15% slope, and
 - cv) 21600 days for areas with a 15% or greater slope, and
 - cw) 36000 days for areas with a 3% or less slope, and
 - cx) 72000 days for areas with a 3% to 10% slope, and
 - cy) 108000 days for areas with a 10% to 15% slope, and
 - cz) 216000 days