

## STANDARD E&S PLAN NOTES

1. All earth disturbances, including clearing and grubbing as well as cuts and fills shall be done in accordance with the approved Erosion and Sediment (E&S) plan. A copy of the approved drawings (stamped, signed and dated by the Berks County Conservation District) must be available at the project site at all times. The Conservation District shall be notified of any changes to the approved plan prior to implementation of those changes. The District may require a written submittal of those changes for review and approval at its discretion.
2. Areas to be filled are to be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots, and other objectionable material.
3. Clearing, grubbing, and topsoil stripping shall be limited to those areas described in each stage of the construction sequence. General site clearing, grubbing and topsoil stripping may not commence in any stage or phase of the project until the E&S Best Management Practices (BMPs) specified by the Construction Sequence for that stage or phase have been installed and are functioning as described in this E&S plan.
4. At no time shall construction vehicles be allowed to enter areas outside the limit of disturbance boundaries shown on the plan maps. These areas must be clearly marked and fenced off before clearing and grubbing operations begin.
5. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate BMPs to minimize the potential for erosion and sediment pollution and notify the Berks County Conservation District and/or the South-central regional office of DEP.
6. All pumping of water from any work area shall be done according to the procedure described in this plan, over undisturbed vegetated areas. Discharge points should be established to provide for maximum distance to active waterways.
7. Until the site is stabilized, all E&S BMPs must be maintained properly. Maintenance shall include inspections of all E&S BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, mulching and renetting must be performed immediately. If E&S BMPs fail to perform as expected, replacement BMPs, or modifications of those installed will be required.
8. A log showing dates that E&S BMPs were inspected as well as any deficiencies found and the date they were corrected shall be maintained on the site and be made available to regulatory agency officials at the time of inspection.
9. Sediment tracked onto any public roadway or sidewalk shall be returned to the construction site by the end of each work day and disposed in the manner described in this plan. In no case shall the sediment be washed, shoveled, or swept into any roadside ditch, storm sewer, or surface water.
10. All sediment removed from BMPs shall be disposed of in the manner described on the plan drawings.
11. All excavation for utility line installation shall be limited to the amount that can be excavated, installed, backfilled and stabilized within one working day. All excavated material shall be deposited on the upslope side of the trench.
12. Concrete wash water shall be handled in the manner described on the plan drawings. In no case shall it be allowed to enter any surface waters or groundwater systems.

13. Seeps or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain or other approved method.
14. Failure to correctly install E&S BMPs, failure to prevent sediment-laden runoff from leaving the construction site, or failure to take immediate corrective action to resolve failure of E&S BMPs may result in administrative, civil, and/or criminal penalties being instituted by the Pennsylvania Department of Environmental Protection as defined in Section 602 of the Pennsylvania Clean Streams Law. The Clean Streams Law provides for up to \$10,000 per day in civil penalties, up to \$10,000 in summary criminal penalties, and up to \$25,000 in misdemeanor criminal penalties for each violation.

### **MATERIAL NOTES**

1. All building materials and wastes must be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code Chapter 260, §§260.1 et seq., 271.1, and 287.1 et. seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.
2. All off-site waste and borrow areas must have an E&S Plan approved by a County Conservation District or DEP fully implemented prior to being activated.
3. The contractor is responsible for ensuring that any material brought on site is Clean Fill. Form FP-001 must be retained by the property owner for any fill material affected by a spill or release of a regulated substance but qualifying as Clean Fill due to analytical testing. All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures and conduits, etc. shall be compacted in accordance with local requirements or codes.
4. All earthen fills shall be placed in compacted layers not to exceed 9 inches in thickness.
5. Fill materials shall be free of frozen particles, brush, roots, sod, or other foreign or objectionable materials that would interfere with or prevent construction of satisfactory fills.
6. Frozen materials or soft, mucky, or highly compressible materials shall not be incorporated into fills.
7. Fill shall not be placed on saturated or frozen surfaces.

### **PROTECTION OF INFILTRATION BMP'S**

1. Compaction of the BMP area shall be avoided and minimized during construction.
2. E&S BMPs shall be installed and maintained during and after construction of the infiltration BMP's to prevent sediment from clogging or filling the PCSM BMP or storage facility.
3. To the maximum extent practicable, PCSM BMPs should be constructed after permanent stabilization has been achieved on all contributing drainage areas.

### **SEQUENCE NOTES** *(Insert in Applicable Locations)*

1. At least 7 days prior to starting any earth disturbance activities (including clearing and grubbing), the owner and/or operator shall invite all contractors, the landowner, appropriate municipal officials, the E&S Plan preparer, the PCSM (Post-Construction Stormwater Management) plan preparer, the licensed

- professional responsible for oversight of critical stages of implementation of the PCSM plan, and a representative from Berks County Conservation District to an on-site preconstruction meeting.
2. At least 3 days prior to starting any earth disturbance activities, or expanding into an area previously unmarked, the Pennsylvania One Call System Inc. shall be notified at 1-800-242-1776 for the location of existing underground utilities.
  3. All earth disturbance activities shall proceed in accordance with the sequence provided on the plan drawings. Deviation from that sequence must be approved in writing from the Berks County Conservation District or by DEP prior to implementation.
  4. The limits of disturbance (LOD), streams and wetlands should be marked prior to disturbance activities (i.e. survey stakes, posts & rope, construction fence, etc.).
  5. Per new NPDES requirements, "Upon the installation or stabilization of all perimeter sediment control BMPs and at least 3 days prior to proceeding with the bulk earth disturbance activities, the permittee or co-permittee shall provide notification to the department or authorized conservation district."
  6. After final site stabilization has been achieved, temporary E&S BMPs must be removed or converted to permanent PCSM management BMPs. Areas disturbed during removal or conversion of the BMPs must be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removal/conversions should be done only during the germinating season.  
Berks County Conservation District should be contacted prior to conversion or removal of primary E&S BMPs and may require a site inspection.
  7. Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the Berks County Conservation District for an inspection prior to removal/conversion of the E&S BMPs.
  8. Per new NPDES requirements, "within 30 days after the completion of earth disturbance activities authorized by this permit, including the permanent stabilization of the site and proper installation of PCSM BMPs in accordance with the approved PCSM Plan, or upon submission of the NOT if sooner, the permittee shall file with the department or authorized conservation district a statement signed by a licensed professional and by the permittee certifying that work has been performed in accordance with the terms and conditions of this permit and the approved E&S and PCSM Plans. Completion certificates are needed to ensure that all work is performed in accordance with the terms and conditions of the permit and the approved E&S and PCSM Plans."

### **STABILIZATION NOTES**

1. Topsoil required for the establishment of vegetation shall be stockpiled at the location(s) shown on the plan maps(s) in the amount necessary to complete the finish grading of all exposed areas that are to be stabilized by vegetation. Each stockpile shall be protected in the manner shown on the plan drawings. Stockpile heights shall not exceed 35 feet. Stockpile slopes shall be 2H:1V or flatter.
2. Areas which are to be topsoiled shall be scarified to a minimum depth of 3 to 5 inches, or 6 to 12 inches on compacted soils, prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching. Fill outslopes shall have a minimum of 2 inches of topsoil.
3. Upon temporary cessation of an earth disturbance or any stage or phase of an activity where a cessation of earth disturbance activities exceeds 4 days, the site

- shall be immediately seeded, mulched or otherwise protected from accelerated erosion and sedimentation pending future earth disturbance activities.”
4. Straw mulch must be applied at rates of at least 3.0 tons per acre. Straw mulch should be anchored immediately after application to prevent being windblown.
  5. All graded areas shall be permanently stabilized immediately upon reaching finished grade. Cut slopes in competent bedrock and rock fills need not be vegetated.
  6. Erosion control blanketing shall be installed on all slopes 3H:1V or steeper, within 50 feet of a surface water and on all other disturbed areas according to the standards of this plan.
  7. Immediately after earth disturbance activities cease in any area or subarea of the project, the operator shall stabilize all disturbed areas. During non-germinating months, mulch or protective blanketing shall be applied as described in the plan. Areas not at finished grade, which will be reactivated within 1 year, may be stabilized in accordance with the temporary stabilization specifications. Those areas which will not be reactivated within 1 year shall be stabilized in accordance with the permanent stabilization specifications.
  8. Permanent stabilization is defined as a minimum uniform, perennial 70% vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated erosion. Cut and fill slopes shall be capable of resisting failure due to slumping, sliding, or other movements.
  9. E&S BMPs shall remain functional as such until all areas tributary to them are permanently stabilized or until they are replaced by another BMP approved by the Berks County Conservation District or DEP.

#### **Recommended Mulching Specifications**

1. Mulching shall be provided as required in areas difficult to vegetate, and during off-season operations. Mulching methods and materials shall conform to the following:
  - a. Mulch materials shall be unrotted salt hay, hay or small grain straw applied at the rate of 3 tons per acre. Mulch blower shall not grind or chop the material. Woodchips, free of insects and disease are permitted at a rate of 4-6 tons per acre.
  - b. Mulch shall be spread uniformly by hand or mechanically so that approximately 85% to 95% of the soil surface will be covered.
  - c. Mulch anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the slope.
    - i. Peg and Twine – drive 8” to 10” pegs to within 2” to 3” of the soil surface every 4’ in all directions. Takes may be driven before or after applying mulch. Secure the mulch to the soil surface by stretching twine between pegs in a crisscross or square pattern, and secure the twine around each peg with two or more round turns.
    - ii. Mulch Netting – staple paper, jute, cotton or plastic nettings to the soil surface. Use degradable netting in areas to be mowed.
    - iii. Mulch materials and binders shall be rolled in place by tracked vehicle or other suitable equipment.

- d. Applications should be heavier at edges where wind catches the mulch. In valleys and at crests of banks. Remainder of area should be uniform in appearance.
- e. Wood-fiber or paper-fiber mulch at the rate of 1,500 lbs per acre, or per manufacturer recommendation, may be applied by a hydroseeder. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.
- f. Other:
  - i. Where excessive soil erosion, tracking or flowing of sediment is evident or anticipated, a minimum of 4" of crushed stone shall be placed within the affected area and maintained until permanent stabilization is provided. Additional stone shall be placed as required until stabilization is achieved. Crushed stone shall conform to AASTO designation M43. Size No. 2 (2-1/2" to 1-1/2").

**CHANNEL NOTES** *(Applicable to E&S plans with proposed channels)*

1. All channels shall be kept free of obstructions including but not limited to fill, rocks, leaves, woody debris, accumulated sediment, excess vegetation, and construction material/wastes.
2. Underground utilities cutting through any active channel shall be immediately backfilled and the channel restored to its original cross-section and protective lining. Any base flow within the channel shall be conveyed past the work area in the manner described in this plan until such restoration is complete.
3. Channels having Riprap, Reno Mattress, or Gabion linings must be sufficiently over-excavated so that the design dimensions will be provided after placement of the protective lining.

**SEDIMENT BASIN/TRAP NOTES** *(Applicable to E&S plans with proposed sediment basins or traps)*

1. Sediment basins and/or traps shall be kept free of all construction waste, wash water, and other debris have potential to clog the basin/trap outlet structures and/or pollute the surface waters.
2. Sediment basins shall be protected from unauthorized acts by third parties.
3. Any damage that occurs in whole or in part as a result of basin or trap discharge shall be immediately repaired by the permittee in a permanent manner satisfactory to the municipality, Berks County Conservation District, and the owner of the damaged property.
4. Upon request, the applicant or their contractor shall provide an as-built (record drawing) for any sediment basin or trap to the municipal inspector, Berks County Conservation District or DEP.

**NPDES Permit Notes** *(For Individual and General NPDES Permitted Projects)*

1. The PCSM Plan, inspection reports and monitoring records shall be available on site for review and inspection by the Conservation District or DEP.
2. A licensed professional or qualified designee shall be present onsite and responsible for critical stages (i.e. installation of underground treatment or storage BMPs, structurally engineered BMPs, or other BMPs deemed appropriate by DEP or the District) of implementation of the approved PCSM Plan.

3. Permittee's requesting a renewal of coverage under General Permit must submit to the Berks County Conservation District an administratively complete and acceptable NOI, at least 90 days prior to the expiration date of the coverage.
4. Permittee's requesting a renewal of coverage under Individual Permit must submit to the Berks County Conservation District an administratively complete and acceptable NOI, at least 180 days prior to the expiration date of the coverage.
5. All earthmoving contractors must be added as Co-Permittees to the NPDES Permit.
6. Site inspections and monitoring reports – the Permittee and Co-Permittee(s) shall comply with all monitoring and reporting requirements, as outlined in Part A.2 of the NPDES Permit. The Permittee and Co-Permittee(s) shall ensure that site inspections are conducted at least weekly and after each measurable precipitation event (1/4" of rain or more) by qualified personnel. A written report shall be kept for each inspection in accordance with the requirements of Part A.2.a.
  - a. The DEP "Visual Inspection Checklist" should be completed for each inspection and should be available on-site for inspection by DEP or County Conservation District personnel.
7. Upon permanent stabilization of the earth disturbance activity under §102.22(a)(2) (relating to permanent stabilization), and installation of BMPs in accordance with an approved plan prepared and implemented in accordance with §102.4 and §102.8 (relating to erosion and sediment control requirements; and PCSM requirements), the permittee or co-permittee shall submit a Notice of Termination to Berks County Conservation District. Allowing the NPDES Permit to expire without an NOT is determined to be a violation of the NPDES Permit.
  - a. The permittee shall include with the NOT "Record Drawings" with a final certification statement from a licensed professional certifying proper installation and accuracy of record drawings reflecting as-built conditions.