

## E&SPC PLAN

\*\*\*Please provide the following on your E&SPC sketch plan and as part of your plan submittal

### 1. EXISTING TOPOGRAPHIC FEATURES OF THE PROJECT SITE

- A. The existing topographic features of the project site and the immediate surrounding area are shown on maps included in the drawings.....
- B. A location map has been provided (8 1/2" x 11" copy of USGS map with the outline of the project area).....

### 2. THE TYPES, DEPTH, SLOPES, LOCATIONS OF THE SOILS

- A. Soils map with project area outlined has been provided.....

### 3. CHARACTERISTICS OF THE EARTH DISTURBANCE ACTIVITY

- A. Limits of the project are shown on the plan map (i.e. line boundary for Total Project Area and Total Disturbed Area).....
- B. Original and proposed contours or slope % are shown on the plan map.....

### 4. THE LOCATION OF WATERS OF THE COMMONWEALTH WHICH MAY RECEIVE RUNOFF WITHIN OR FROM THE PROJECT SITE

- A. The location(s) of streams or other water bodies which may receive site runoff are shown on the plan map.....
- B. The Chapter 93 classification of streams or other water bodies which may receive site runoff is provided.....

### 5. THE LOCATIONS AND TYPES OF PERIMETER AND ON SITE BEST MANAGEMENT PRACTICES (BMPS)

- A. Plan map shows locations of proposed temporary BMPs to control runoff and provide sediment removal.....
- B. Plan map shows locations of proposed permanent BMPs to control erosion.....
- C. Construction details and specifications for all proposed BMPs are shown on the plan map.....

### 6. SEQUENCE OF BMPS INSTALLATION AND REMOVAL

- A. A construction sequence has been provided on the plan maps.....

## STANDARD EROSION AND SEDIMENT CONTROL PLAN NOTES

### **\*\*For Small Projects**

(Please attach to your plan submittal)

**102.2(a) "This chapter requires persons proposing or conducting earth disturbance activities to develop, implement and maintain BMPs to minimize the potential for accelerated erosion and sedimentation."**

**102.4(b)(3) "The Erosion and Sediment Control Plan shall be prepared by a person trained and experienced in erosion and sediment control methods and techniques, and shall be designed to minimize the potential for accelerated erosion and sedimentation."**

1. Stockpile heights must not exceed 35 feet Stockpile slopes must be 2: 1 or flatter. *E&SPCPM P.168*
2. The operator shall assure that the approved erosion and sediment control plan is properly and completely implemented.
3. Until the site achieves final stabilization, the operator shall assure that the best management practices are implemented, operated, and maintained properly and completely. Maintenance shall include inspections of all best management practice facilities and maintain and make available to Conservation District complete, written inspection logs of all those inspections. All maintenance work, including cleaning, repair, replacement, regrading, and restabilization shall be performed immediately.
4. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to eliminate potential for accelerated erosion and/or sediment pollution.
5. Before initiating any revisions to the approved erosion and sediment control plan or revisions to other plans which may affect the effectiveness of the approved E&S control plan, the operator must receive approval of the revisions from the Conservation District.
6. The operator shall assure that an erosion and sediment control plan has been prepared, approved by the Conservation District, and is being implemented and maintained for all soil and/or rock spoil and borrow areas, regardless of their locations.
7. All pumping of sediment laden water shall be through a sediment control BMP, such as pumped water filter bag discharging over non-disturbed areas.
8. The contractor is advised to become thoroughly familiar with the provisions of the Appendix 64, Erosion Control Rules and Regulations, Title 25, Part 1, Department of Environmental Protection, Subpart C, Protection of Natural Resources, Article III, Water Resources, Chapter 102, Erosion Control.
9. A copy of the approved erosion and sediment control plan must be available at the project site at all times.

**102.4(b)(5)(i) "The existing topographic features of the project site and the immediate surrounding area."**

10. The E&S control plan mapping must display a PA ONE CALL SYSTEM INCORPORATED symbol including the site identification number. *(This is a numbered symbol, not a note.)*

**102.4(b)(5)(vii) "A sequence of BMP installation and removal in relation to the scheduling of earth disturbance activities, prior to, during, and after earth disturbance activities."**

**102.4(b)(4) "Earth disturbance activities shall be planned and conducted to minimize the extent and duration of earth disturbance."**

**102.22(a) "Upon completion of an earth disturbance activity or any stage or phase of an activity, the site shall be immediately seeded, mulched or otherwise protected from accelerated erosion and sedimentation."**

11. Only limited disturbance will be permitted to provide access to for grading and acquiring borrow to construct those BMPs. *(Insert type of BMP for which borrow is needed.) E&SPCPM P.168*
12. Erosion and sediment BMPs must be constructed, stabilized, and functional before site disturbance begins within the tributary areas of those BMPs. *E&SPCPM P.168*

13. After final site stabilization has been achieved, temporary erosion and sediment BMPs controls must be removed. Areas disturbed during removal of the BMPs must be stabilized immediately. *E&SPCPM P. 168*
14. At least 7 days before starting any earth disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, the erosion and sediment control plan preparer, and the Conservation District to an on-site meeting. Also, at least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System Incorporated at 1-800-242-1776 for buried utilities locations.
15. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
16. Immediately after earth disturbance activities cease, the operator shall stabilize any areas, disturbed by the activities. During non germinating periods, mulch must be applied at the specified rates. Disturbed areas which are not at finished grade and which will be redisturbed within 1 year must be stabilized in accordance with the temporary vegetative stabilization specifications. Disturbed areas which are at finished grade or which will not be redisturbed within 1 year must be stabilized in accordance with the permanent vegetative stabilization specifications.
18. An area shall be considered to have achieved final stabilization when it has a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movement.

#### **Temporary Stabilization & Permanent Stabilization**

17. Hay or straw mulch must be applied at 3.0 tons per acre.
18. Mulch with mulch control netting or erosion control blankets must be installed on all slopes 3: 1 and steeper."
19. Straw mulch shall be applied in long strands, not chopped or finely broken.

#### **102.4(b)(5)(x) "A maintenance program which provides for inspection of BMPs on a weekly basis and after each runoff event, including the repair of the BMPs to ensure effective and efficient operation."**

20. Until the site is stabilized, all erosion and sediment BMPs must be maintained properly. Maintenance must include inspections of all erosion and sediment control BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair; replacement, regrading, reseeding, remulching, and renetting, must be performed immediately. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs, or modifications of those installed will be required. *E&SPCPM P. 168*
21. Sediment removed from BMPs shall be disposed of in landscaped areas outside of steep slopes, wetlands, floodplains or drainage swales and immediately stabilized, or placed in topsoil stockpiles.

#### **102.4(b)(5)(xi) "Procedures which ensure that the proper measures for the recycling or disposal of materials associated with or from the project site will be undertaken in accordance with this title."**

22. The operator shall remove from the site, recycle, or dispose of all building materials and wastes in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271.1 et seq., and 287.1 et seq. The contractor shall not illegally bury, dump, or discharge any building material or wastes at the site."



# Fact Sheet

Commonwealth of Pennsylvania • Department of Environmental Protection

## CLUES TO WETLAND IDENTIFICATION: QUESTIONS FOR DEVELOPERS, CONTRACTORS, SURVEYORS, FARMERS AND LAND OWNERS

Wetlands are areas where ground and/or surface water lingers for at least brief periods during the growing season (see DEP Fact Sheet, *An Introduction to Wetlands* and the enclosed map, "Growing Seasons for Wetland Hydrology").

In Pennsylvania, wetlands are protected by both state and federal regulations and may also be protected by local (municipal) regulations or ordinances. Wetlands are valuable because they function in ways that benefit the natural world, including the human community (see DEP Fact sheet, *Wetlands: Functions at the Junctions*).

**ARE WETLANDS PRESENT ON YOUR SITE?** Take a walking inventory of fields, forests and woodlots. Ask the following questions:

Yes    No

- Are there open bodies of water, ponds, lakes, streams or reservoirs?
  - Are there natural drainage channels (permanent or temporary)?
  - Is the ground soggy or spongy under foot at any time during the growing season (see "Growing Seasons" map)?
  - Are there "low spots" or depressions where water lies or pools for more than seven days during the growing season?
  - Are swales, springs or seeps present?
  - Are there areas you would not cross with vehicles, tractors or other machinery for fear of "getting stuck"?
  - Has the site been "ditched" or "tiled" in spots to "dry it out"?
  - Do some plants have roots growing from their stems, above the soil line?
  - Do you see these plants: cattails, sedges (frequently with triangular stems), iris (flags), arrowheads, joe pyeweed, touch-me-not (jewelweed), rushes, sensitive fern, ironweed or skunk cabbage?
  - Do you see these trees or saplings: willows, red or silver maples, box elders, black or green ash, sycamore or black gum?
  - Are tree trunks expanded or swollen at the base?
  - Are any trees "blown down" (windthrows), exposing a shallow but extensive root system?
  - Are any of these shrubs present: blueberry, bush-type dogwoods (for example, red osier), alders, buttonbush or spicebush?
- Do you see:
- cleared areas where water has scoured the surface and removed the plants?
  - places where fallen leaves are discolored gray or black?
  - silt/sedimentation deposits on decaying leaves lying on the ground or on living plant leaves, or on stems or tree trunks?
  - drift lines (wrack lines) where sticks, leaves and other water-carried debris have lodged along a contour or at the base of vegetation?
  - Is there a dark-brown layer of organic matter, over two inches thick, on the soil surface?
  - Does sphagnum moss (a lush, green, juicy moss) cover the site?

09/12/2003

Report: Index Surface Runoff Classes  
 USDA-NRCS Soil Survey Database

Luzerne County, Pennsylvania				
MAP UNIT SYMBOL	MAP UNIT NAME	COMPONENT NAME	DRAINAGE	SURFACE RUNOFF
Ag	ALLUVIAL LAND	ALLUVIAL LAND	moderately well	Low
Ag	ALLUVIAL LAND	HOLLY	poorly	Very high
AlB	ALVIRA SILT LOAM, 3 TO 8 PERCENT SLOPES	ALVIRA	somewhat poorly	Very high
AnB	ALVIRA VERY STONY SILT LOAM, 0 TO 8 PERCENT SLOPES	ALVIRA	somewhat poorly	Very high
ArB	ARNOT-ROCK OUTCROP COMPLEX, 0 TO 8 PERCENT SLOPES	ARNOT	well	Low
ArD	ARNOT-ROCK OUTCROP COMPLEX, 8 TO 25 PERCENT SLOPES	ARNOT	well	Medium
ArD	ARNOT-ROCK OUTCROP COMPLEX, 8 TO 25 PERCENT SLOPES	ROCK OUTCROP		---
ASF	ARNOT-ROCK OUTCROP COMPLEX, STEEP	ARNOT	well	High
ASF	ARNOT-ROCK OUTCROP COMPLEX, STEEP	ROCK OUTCROP		---
At	ATHERTON SILT LOAM, GRAY SUBSOIL VARIANT	ATHERTON VARIANT	poorly	Low
Bf	BASHER SOILS	BASHER	moderately well	Low
BkB	BATH CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES	BATH	well	High
BkC	BATH CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES	BATH	well	High
BkD	BATH CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES	BATH	well	High
BnB	BATH VERY STONY SILT LOAM, 3 TO 8 PERCENT SLOPES	BATH	well	High
BnD	BATH VERY STONY SILT LOAM, 8 TO 25 PERCENT SLOPES	BATH	well	High
BrA	BRACEVILLE GRAVELLY LOAM, 0 TO 3 PERCENT SLOPES	BRACEVILLE	moderately well	Low
BrB	BRACEVILLE GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES	BRACEVILLE	moderately well	Medium
BrC	BRACEVILLE GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES	BRACEVILLE	moderately well	Medium
BuB	BUCHANAN CHANNERY LOAM, 3 TO 8 PERCENT SLOPES	BUCHANAN	moderately well	High
BxB	BUCHANAN EXTREMELY STONY LOAM, 3 TO 8 SLOPES	BUCHANAN	moderately well	High
BxD	BUCHANAN EXTREMELY STONY LOAM, 8 TO 25 PERCENT SLOPES	BUCHANAN	moderately well	High

09/12/2003

Report: Index Surface Runoff Classes  
 USDA-NRCS Soil Survey Database

Luzerne County, Pennsylvania				
MAP UNIT SYMBOL	MAP UNIT NAME	COMPONENT NAME	DRAINAGE	SURFACE RUNOFF
CF	CUT AND FILL LAND	CUT AND FILL LAND	somewhat excessively	---
ChA	CHENANGO GRAVELLY LOAM, 0 TO 3 PERCENT SLOPES	CHENANGO	well	Very low
ChB	CHENANGO GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES	CHENANGO	well	Low
ChC	CHENANGO GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES	CHENANGO	well	Low
ClA	CHIPPEWA SILT LOAM, 0 TO 3 PERCENT SLOPES	CHIPPEWA	very poorly	Medium
ClB	CHIPPEWA SILT LOAM, 3 TO 8 PERCENT SLOPES	CHIPPEWA	very poorly	High
ChB	CHIPPEWA VERY STONY SILT LOAM, 0 TO 8 PERCENT SLOPES	CHIPPEWA	very poorly	Medium
DdB	DEKALB EXTREMELY STONY SANDY LOAM, 0 TO 8 PERCENT SLOPES	DEKALB	well	Very low
DdD	DEKALB EXTREMELY STONY SANDY LOAM, 8 TO 25 PERCENT SLOPES	DEKALB	well	Low
DEF	DEKALB EXTREMELY STONY SANDY LOAM, STEEP	DEKALB	well	Medium
Ho	HOLLY SILT LOAM	HOLLY	poorly	Very high
KdB	KEDRON CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES	KEDRON	moderately well	High
KdC	KEDRON CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES	KEDRON	moderately well	High
KeB	KEDRON VERY STONY SILT LOAM, 3 TO 8 PERCENT SLOPES	KEDRON	moderately well	High
KeC	KEDRON VERY STONY SILT LOAM, 8 TO 20 PERCENT SLOPES	KEDRON	moderately well	High
KwB	KEDRON CHANNERY SILT LOAM, SOMEWHAT POORLY DRAINED, 0 TO 8 PERCENT SLOPES	KEDRON, SWPD	somewhat poorly	Very high
KwB	KEDRON CHANNERY SILT LOAM, SOMEWHAT POORLY DRAINED, 0 TO 8 PERCENT SLOPES	POORLY DRAINED SOILS		Low
KxB	KEDRON VERY STONY SILT LOAM, SOMEWHAT POORLY DRAINED, 0 TO 8 PERCENT SLOPES	KEDRON, SWPD	somewhat poorly	Very high
KxB	KEDRON VERY STONY SILT LOAM, SOMEWHAT POORLY DRAINED, 0 TO 8 PERCENT SLOPES	POORLY DRAINED SOILS		Low
LaB	LACKAWANNA CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES	LACKAWANNA	well	Very high

09/12/2003

Report: Index Surface Runoff Classes  
USDA-NRCS Soil Survey Database

Luzerne County, Pennsylvania				
MAP UNIT SYMBOL	MAP UNIT NAME	COMPONENT NAME	DRAINAGE	SURFACE RUNOFF
LaC	LACKAWANNA CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES	LACKAWANNA	well	Very high
LaD	LACKAWANNA CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES	LACKAWANNA	well	Very high
LcB	LACKAWANNA VERY STONY SILT LOAM, 3 TO 8 PERCENT SLOPES	LACKAWANNA	well	Very high
LcD	LACKAWANNA VERY STONY SILT LOAM, 8 TO 25 PERCENT SLOPES	LACKAWANNA	well	Very high
LEF	LACKAWANNA AND BATH VERY STONY SILT LOAMS, STEEP	LACKAWANNA	well	Very high
LEF	LACKAWANNA AND BATH VERY STONY SILT LOAMS, STEEP	BATH	well	High
LkB	LECK KILL CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES	LECK KILL	well	Low
LkC	LECK KILL CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES	LECK KILL	well	Low
LkD	LECK KILL CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES	LECK KILL	well	Medium
Ln	LINDEN SOILS	LINDEN	well	Very low
MaB	MARDIN CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES	MARDIN	moderately well	Very high
MaC	MARDIN CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES	MARDIN	moderately well	Very high
MaD	MARDIN CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES	MARDIN	moderately well	Very high
McB	MARDIN VERY STONY SILT LOAM, 3 TO 8 PERCENT SLOPES	MARDIN	moderately well	Very high
McD	MARDIN VERY STONY SILT LOAM, 8 TO 25 PERCENT SLOPES	MARDIN	moderately well	Very high
MeB	MECKESVILLE CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES	MECKESVILLE	well	Medium
MeC	MECKESVILLE CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES	MECKESVILLE	well	Medium
MeD	MECKESVILLE CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES	MECKESVILLE	well	High
MfB	MECKESVILLE VERY STONY SILT LOAM, 3 TO 8 PERCENT SLOPES	MECKESVILLE	well	Medium
MfD	MECKESVILLE VERY STONY SILT LOAM, 8 TO 25 PERCENT SLOPES	MECKESVILLE	well	Medium

09/12/2003

Report: Index Surface Runoff Classes  
 USDA-NRCS Soil Survey Database

Luzerne County, Pennsylvania				
MAP UNIT SYMBOL	MAP UNIT NAME	COMPONENT NAME	DRAINAGE	SURFACE RUNOFF
Mg	MINE DUMP	MINE DUMP		Medium
Mh	MINE DUMP, BURNED	MINE DUMP, BURNED		Medium
Mm	MINE WASH	MINE WASH		Medium
MoB	MORRIS CHANNERY SILT LOAM, 0 TO 8 PERCENT SLOPES	MORRIS	somewhat poorly	Very high
MoC	MORRIS CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES	MORRIS	somewhat poorly	Very high
MsB	MORRIS VERY STONY SILT LOAM, 0 TO 8 PERCENT SLOPES	MORRIS	somewhat poorly	Very high
MsC	MORRIS VERY STONY SILT LOAM, 8 TO 15 PERCENT SLOPES	MORRIS	somewhat poorly	Very high
Mu	MUCK	MUCK	very poorly	Very low
O1B	OQUAGA AND LORDSTOWN CHANNERY SILT LOAMS, 3 TO 8 PERCENT SLOPES	OQUAGA	well	Medium
O1B	OQUAGA AND LORDSTOWN CHANNERY SILT LOAMS, 3 TO 8 PERCENT SLOPES	LORDSTOWN	well	Medium
O1C	OQUAGA AND LORDSTOWN CHANNERY SILT LOAMS, 8 TO 15 PERCENT SLOPES	OQUAGA	well	Medium
O1C	OQUAGA AND LORDSTOWN CHANNERY SILT LOAMS, 8 TO 15 PERCENT SLOPES	LORDSTOWN	well	Medium
O1D	OQUAGA AND LORDSTOWN CHANNERY SILT LOAMS, 15 TO 25 PERCENT SLOPES	OQUAGA	well	High
O1D	OQUAGA AND LORDSTOWN CHANNERY SILT LOAMS, 15 TO 25 PERCENT SLOPES	LORDSTOWN	well	High
OpB	OQUAGA AND LORDSTOWN EXTREMELY STONY SILT LOAMS, 3 TO 8 PERCENT SLOPES	OQUAGA	well	Medium
OpB	OQUAGA AND LORDSTOWN EXTREMELY STONY SILT LOAMS, 3 TO 8 PERCENT SLOPES	LORDSTOWN	well	Medium
OpD	OQUAGA AND LORDSTOWN EXTREMELY STONY SILT LOAMS, 8 TO 25 PERCENT SLOPES	OQUAGA	well	Medium
OpD	OQUAGA AND LORDSTOWN EXTREMELY STONY SILT LOAMS, 8 TO 25 PERCENT SLOPES	LORDSTOWN	well	Medium
OXF	OQUAGA AND LORDSTOWN EXTREMELY STONY SILT LOAMS STEEP	OQUAGA	well	High
OXF	OQUAGA AND LORDSTOWN EXTREMELY STONY SILT LOAMS STEEP	LORDSTOWN	well	High
PoB	POCONO GRAVELLY SANDY LOAM, 3 TO 8 PERCENT SLOPES	POCONO	well	Medium



09/12/2003

Report: Index Surface Runoff Classes  
USDA-NRCS Soil Survey Database

Luzerne County, Pennsylvania				
MAP UNIT SYMBOL	MAP UNIT NAME	COMPONENT NAME	DRAINAGE	SURFACE RUNOFF
PoC	POCONO GRAVELLY SANDY LOAM, 8 TO 15 PERCENT SLOPES	POCONO	well	Medium
PpB	POCONO EXTREMELY STONY SANDY LOAM, 3 TO 8 PERCENT SLOPES	POCONO	well	Medium
PpD	POCONO EXTREMELY STONY SANDY LOAM, 8 TO 25 PERCENT SLOPES	POCONO	well	Medium
PQ	PITS AND QUARRIES	PITS AND QUARRIES		---
Ps	POPE SOILS	POPE	well	Low
RdA	REXFORD LOAM, 0 TO 3 PERCENT SLOPES	REXFORD	poorly	Very high
RdB	REXFORD LOAM, 3 TO 8 PERCENT SLOPES	REXFORD	poorly	Very high
RdB	REXFORD LOAM, 3 TO 8 PERCENT SLOPES	REXFORD, SWPD	poorly	Very high
ShA	SHELMADINE SILT LOAM, 0 TO 5 PERCENT SLOPES	SHELMADINE	poorly	Very high
SkB	SHELMADINE VERY STONY SILT LOAM, 0 TO 5 PERCENT SLOPES	SHELMADINE	poorly	Very high
Sm	STRIP MINE	STRIP MINE		Medium
Ub	URBAN LAND	URBAN LAND		---
Uf	URBAN LAND, RARELY FLOODED	URBAN LAND, RARE FLOOD		---
VoB	VOLUSIA CHANNERY SILT LOAM, 0 TO 8 PERCENT SLOPES	VOLUSIA	somewhat poorly	Very high
VoC	VOLUSIA CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES	VOLUSIA	somewhat poorly	Very high
VrB	VOLUSIA VERY STONY SILT LOAM, 0 TO 8 PERCENT SLOPES	VOLUSIA	somewhat poorly	Very high
VrC	VOLUSIA VERY STONY SILT LOAM, 8 TO 15 PERCENT SLOPES	VOLUSIA	somewhat poorly	Very high
W	BODIES OF WATER 2 TO 40 ACRES IN SIZE	BODIES OF WATER 2 TO		---
Wa	WAYLAND SILT LOAM	WAYLAND	very poorly	High
WeB	WEIKERT AND KLINESVILLE CHANNERY SILT LOAMS, 3 TO 8 PERCENT SLOPES	WEIKERT	well	Medium
WeB	WEIKERT AND KLINESVILLE CHANNERY SILT LOAMS, 3 TO 8 PERCENT SLOPES	KLINESVILLE	well	Medium
WeC	WEIKERT AND KLINESVILLE CHANNERY SILT LOAMS, 8 TO 15 PERCENT SLOPES	WEIKERT	well	Medium

09/12/2003

Report: Index Surface Runoff Classes  
 USDA-NRCS Soil Survey Database

Luzerne County, Pennsylvania				
MAP UNIT SYMBOL	MAP UNIT NAME	COMPONENT NAME	DRAINAGE	SURFACE RUNOFF
WeC	WEIKERT AND KLINESVILLE CHANNERY SILT LOAMS, 8 TO 15 PERCENT SLOPES	KLINESVILLE	well	Medium
WeD	WEIKERT AND KLINESVILLE CHANNERY SILT LOAMS, 15 TO 25 PERCENT SLOPES	WEIKERT	well	High
WeD	WEIKERT AND KLINESVILLE CHANNERY SILT LOAMS, 15 TO 25 PERCENT SLOPES	KLINESVILLE	well	High
W1B	WELLSBORO CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES	WELLSBORO	moderately well	High
W1C	WELLSBORO CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES	WELLSBORO	moderately well	High
W1D	WELLSBORO CHANNERY SILT LOAM, 15 TO 25 PERCENT SLOPES	WELLSBORO	moderately well	High
WmB	WELLSBORO VERY STONY SILT LOAM, 3 TO 8 PERCENT SLOPES	WELLSBORO	moderately well	High
WmD	WELLSBORO VERY STONY SILT LOAM, 8 TO 25 PERCENT SLOPES	WELLSBORO	moderately well	High
WrB	WURTSBORO CHANNERY LOAM, 3 TO 8 PERCENT SLOPES	WURTSBORO	moderately well	High
WrC	WURTSBORO CHANNERY LOAM, 8 TO 15 PERCENT SLOPES	WURTSBORO	moderately well	High
WrD	WURTSBORO CHANNERY LOAM, 15 TO 25 PERCENT SLOPES	WURTSBORO	moderately well	High
WtB	WURTSBORO EXTREMELY STONY LOAM, 3 TO 8 SLOPES	WURTSBORO	moderately well	High
WtD	WURTSBORO EXTREMELY STONY LOAM, 8 TO 25 PERCENT SLOPES	WURTSBORO	moderately well	High
WyD	WYOMING GRAVELLY LOAM, 15 TO 25 PERCENT SLOPES	WYOMING	somewhat excessively	Low
WyF	WYOMING GRAVELLY LOAM, 25 TO 60 PERCENT SLOPES	WYOMING	somewhat excessively	Low

(1) A null value in Ksat makes the calculated runoff class uncertain. Null values are most commonly in bedrock layers or hardpans that should be assigned impermeable or very slow Ksat values. Calculation Based on National Soils Handbook, Part 618-50; and Soil Survey Manual, p113-114

## Chapter 93 Stream Classifications

Stream	Zone	County	Water Uses
			<b>Protected</b>
Lehigh River	Basin, Source to Tobyhanna Creek	Luzerne-Monroe- Carbon	HQ-CWF
Susquehanna River	Main Stem, PA-NY State Border near Milltown to Lackawanna River	Luzerne	WWF
Unnamed Tributaries to Susquehanna River	Basins, Wyalusing Creek to Lackawanna River	Bradford- Wyoming- Lackawanna- Luzerne	CWF
South Branch Bowman Creek	Basin, Source to Confluence with North Branch	Luzerne	HQ-CWF
North Branch Bowman Creek	Basin, Source to Confluence with South Branch	Luzerne	HQ-CWF
Unnamed Tributaries to Bowman Creek	Basins, Confluence of South and North Branches to Mouth	Luzerne- Wyoming	HQ-CWF
Bean Run	Basin	Luzerne	HQ-CWF
Wolf Run	Basin	Luzerne	HQ-CWF
Beth Run	Basin	Luzerne	HQ-CWF
Butternut Run	Basin	Luzerne	HQ-CWF
Dymond Creek	Basin	Luzerne	CWF
Sutton Creek	Basin	Luzerne	CWF
Gardner Creek	Basin	Luzerne	CWF
Obendoffers Creek	Basin	Luzerne	CWF
Hicks Creek	Basin	Luzerne	CWF
Lackawanna River	Main Stem, SR 0347 Bridge to Mouth	Luzerne	CWF
Unnamed Tributaries to Lackawanna River	Basins, SR 0347 Bridge to Mouth	Luzerne	CWF
St. Johns Creek	Basin	Luzerne	CWF
Red Spring Run	Basin	Luzerne	CWF
Unnamed Tributaries To Susquehanna River	Basins, Lackawanna River to West Branch Susquehanna River	Luzerne- Columbia Montour Northumberland	CWF
Abrahams Creek	Basin	Luzerne	CWF
Mill Creek (Warden Creek)	Basin	Luzerne	CWF
Toby Creek	Basin, Source to Huntsville Creek	Luzerne	CWF
Huntsville Creek	Basin	Luzerne	CWF
Toby Creek	Basin, Huntsville Creek to the point where the stream is piped underground at Pringle	Luzerne	TSF
Toby Creek	Basin, from the point where the stream is piped underground at Pringle to the Mouth	Luzerne	WWF
Brown Creek	Basin	Luzerne	CWF
Wadham Creek	Basin	Luzerne	CWF
Coal Creek	Basin	Luzerne	CWF
Solomon Creek	Basin, Source to Pine Creek	Luzerne	HQ-CWF
Pine Creek	Basin	Luzerne	CWF
Solomon Creek	Basin, Pine Creek to Mouth	Luzerne	CWF
Warrior Creek	Basin	Luzerne	CWF
Nanticoke Creek	Basin	Luzerne	CWF
Harvey Creek	Basin, Source to Pikes Creek	Luzerne	HQ-CWF
Pikes Creek	Basin	Luzerne	HQ-CWF
Harvey Creek	Basin, Pikes Creek to Mouth	Luzerne	CWF
Hunlock Creek	Basin	Luzerne	CWF
Shickshinny Creek	Main Stem	Luzerne	CWF
Unnamed Tributaries to Shickshinny Creek	Basins	Luzerne	CWF
Culver Creek	Basin	Luzerne	CWF
Reyburn Creek	Basin	Luzerne	CWF
Little Schickshinny Creek	Basin	Luzerne	HQ-CWF
Black Creek	Basin	Luzerne	CWF
Turtle Creek	Basin	Luzerne	CWF
Rocky Run	Basin	Luzerne	CWF

Little Wapwallopen Creek	Basin	Luzerne	CWF
Wapwallopen Creek (Big Wapwallopen Creek)	Basin	Luzerne	CWF
Walker Run	Basin	Luzerne	CWF
Salem Creek	Basin	Luzerne	CWF
Nescopeck Creek	Basin, Source to PA 309 Bridge	Luzerne	HQ-CWF
Nescopeck Creek	Main Stem, PA 309 Bridge to Mouth	Luzerne- Columbia	TSF
Unnamed Tributaries to Nescopeck Creek	Basins, PA 309 Bridge to Mouth	Luzerne- Columbia	CWF
Creasy Creek	Basin	Luzerne	CWF
Little Nescopeck Creek	Basin	Luzerne	CWF
Oley Creek	Basin, Source to farthest downstream crossing of State Game Lands No. 187 Border	Luzerne	HQ-CWF
Oley Creek	Basin, Farthest down-stream crossing of State Game Lands No. 187 Border to Mouth	Luzerne	CWF
Long Run	Basin	Luzerne	CWF
Little Nescopeck Creek	Basin	Luzerne	CWF
Black Creek	Basin	Luzerne	CWF
Huntingdon Creek	Basin, Source to Kitchen Creek	Luzerne	HQ-CWF
Kitchen Creek	Basin	Luzerne	HQ-CWF
Unnamed Tributaries to Huntingdon Creek	Basins, Kitchen Creek to Mouth	Luzerne	CWF
Rogers Creek	Basin	Luzerne	CWF
Kingsbury Brook	Basin	Luzerne	CWF
Pine Creek	Basin	Luzerne	CWF
Unnamed Tributaries to Catawissa Creek	Basins, Source to Rattling Run	Luzerne-Schuylkill	CWF
Hunkydory Creek	Basin	Luzerne	CWF

## DEFINITIONS OF COMMONLY USED E&S TERMS:

**AASHTO #1 Stone** – A standard size range for Coarse Aggregate Stone ranging from ¾” to 4” in diameter.

**Acre** – A measure of area equal to 43,560 square feet (4,046.87 square meters). One square mile equals 640 acres.

**Best Management Practice (BMP)** – An erosion control measure or facility; A generally accepted practice for minimizing accelerated erosion and resultant sediment pollution.

**Chapter 102** – The Department’s rules and regulations concerning Erosion and Sediment Control.

**Clean Streams Law (CSL)** – (35 P.S. § 691.1 et. Seq.) Pennsylvania law passed in 1937 to preserve and improve the purity of the waters of the Commonwealth.

**Construction Detail** – A drawing of a BMP showing all critical dimensions and elevations.

**Construction Sequence** – A step by step description of a proposed earthmoving activity relating the various stages of construction to the BMPs that must be installed prior to each stage. It should also describe the conditions of stabilization that will exist prior to removal of temporary BMPs or their conversion to permanent stormwater management facilities as well as the process of converting those facilities.

**Contour** – A line connecting points having the same elevation on a topographic map.

**DEP** – The Department of Environmental Protection.

**Department (The)** – The Department of Environmental Protection.

**Disturbed Area** – That part of an earthmoving project from which the vegetative cover has been removed to the extent that the potential for accelerated erosion exists.

**E & SPC Plan** – Erosion and Sediment Pollution Control Plan.

**Earth Disturbance Activity** – Any human activity which would tend to increase the potential for accelerated erosion.

**Erosion** – The loosening and removal (by wind and/or water) of soil and/or rock from its location and moving it to a place of deposition.

**Erosion and Sediment Control Plan** – A site-specific identifying BMPs to minimize accelerated erosion and sedimentation. For agricultural plowing or tilling activities, the Erosion and Sediment Control Plan is that portion of a conservation plan identifying BMPs to minimize accelerated erosion and sedimentation.

**Erosion and Sediment Control Plan** – A site-specific plan for earth disturbance projects identifying BMPs which will be used to minimize accelerated erosion and sedimentation.

**Filter Fabric** – A manufactured geotextile material used to filter sediment from runoff from a disturbed area.

**Filter Fabric Fence** – A sediment barrier constructed from filter fabric attached to support stakes.

**Hydric Soil** – A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions. When such a soil is located in an area that has hydrophytic vegetation and wetland hydrology, a wetland is present.

**Limit of Disturbance** – The boundary within which it is anticipated that earthmoving (including installation of BMPs) will take place.

**Limiting Exposed Areas** – 1. Minimizing the area to be disturbed by proposed earthmoving. 2. Minimizing the time period from initial disturbance to final stabilization.

**Location Map** – Map insert on Plan Drawings and in the Narrative showing the location of the project. A photocopy of the USGS Quad with the project outlined and the quad name provided is recommended.

**Maintenance** – The regular inspection of BMPs to ensure proper functioning and timely repairs to damaged BMPs.

**Mulch** – A natural or artificial layer of plant residue or other materials placed on the soil surface to protect seeds, prevent blowing, retain soil moisture, curtail erosion, and modify soil temperature.

**Narrative** – The part of an Erosion and Sediment Control Plan which contains the applicant and plan designer information, soil use limitations and resolutions, wetland identification and delineation information, supporting calculations.

**Permanent Vegetation** – Perennial vegetation that has been established to provide permanent stabilization (expected life span of at least 5 years).

**Plan Drawings** – The drawings used by a contractor to construct a project. In E & SPC Plans, these drawings should include maps, construction details and typicals, sequencing, maintenance information, seeding and mulching specs, and other information needed by the contractor to comply with the Department’s rules and regulations.

**Plan Map** – A topographic map which shows the proposed earthmoving and the BMPs that are to be used to control accelerated erosion and sedimentation during construction.

**Potential Sediment Pollution** – Site conditions (e.g. failure to install or maintain BMPs specified in the E & SPC Plan) which, if not corrected, could result in Sediment Pollution to Waters of the Commonwealth if a design storm occurs.

**Pumped Water Filter Bag** – A bag manufactured from Filter Fabric and used to filter water pumped from a disturbed area prior to discharging it to Waters of the Commonwealth.

**Revegetation** – Reestablishing vegetative cover on ground that has been disturbed, such as a construction site.

**Rock Filter Outlet** – A sediment barrier constructed at points where concentrated flow is anticipated at a Filter Fabric Fence or Straw Bale Barrier or where concentrated flow has caused the failure of a barrier.

**Runoff** – That portion of a rainfall or snow melt which flows over the surface.

**Sediment** – Soil or rock materials which have been eroded from one location and deposited in another.

**Sediment Barrier** – A permeable wall or fence constructed for the purpose of filtering sediment out of runoff from a disturbed area.

**Sediment Pollution** - Discharging sediment to Waters of the Commonwealth.

**Silt Fence** – Filter Fabric Fence.

**Slope** – Deviation of a surface from horizontal measured in ratio (e.g. ft/ft), percent, or degrees.

**Soil Classification** – The systematic arrangement of soils into groups or categories on the basis of their characteristics.

**Soil Map** – A map showing soil boundaries (e.g. those in the Soil Survey).

**Soil Survey** – A publication by the NRCS on a county-wide basis containing soil maps, soil descriptions, and tables of soil characteristics (including limitations).

**Standard Construction Detail** – Typical details provided by the Department for use on Plan Drawings to provide information to contractors necessary to install BMPs according to Department standards.

**Standard Filter Fabric Fence** – 18” High Filter Fabric Fence (See Standard Construction Detail #19).

**Stabilization** – The proper placing, grading, constructing, reinforcing, lining, and covering of soil, rock or earth to ensure their resistance to erosion, sliding or other movement.

**Straw Bale Barrier** – A sediment barrier constructed from Stakes Straw Bales (See Standard Construction Detail #17).

**Temporary Vegetation** – A Vegetative Cover (Annual or Perennial) used to provide erosion protection to a disturbed area until active earthmoving resumes or permanent protection is provided.

**USGS** – The U.S. Geological Survey, an agency of the U.S. Department of the Interior responsible for providing extensive earth-science studies of the nation’s land, water, and mineral resources.

**Vegetative Stabilization** – A vegetative cover that has achieved a uniform 70% cover.

**Wetland** – An area which meets the criteria (hydric soils, hydrophytic plants, and hydrology) set forth in the 1987 Federal Manual for Identifying and Delineating Jurisdictional Wetlands.