SWPPP Development for Construction Stormwater GP Applications for Highway Construction

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WV DEP

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Primary Objective

Get Permit Approval

- Submit a Complete Application
- Meets the minimum conditions of the construction stormwater general permit.

Complete Application
Permit Condition II.A.1.c.

Large Projects – 3 acres or more disturbance

- Complete Application Form, Public Notice Sign Template
- Stormwater Pollution Prevention Plan
- Groundwater Protection Plan

Complete Application
Permit Condition II.A.1.c.

Large Projects – 3 acres or more disturbance

- Pre-Construction Drainage Map
- During Construction Drainage Map showing the proposed location of all
- drainage structures and associated access routes;
- Post Construction Drainage Map;

Complete Application
Permit Condition II.A.1.c.

Large Projects – 3 acres or more disturbance

- Annual Progress Map if permitted for longer than one year;
- Detailed Site Plan (Maps) showing Limits of Disturbance and Receiving Waters;
- Design Details for:
  - Sediment basins, road, cut and fill cross sections, and other engineered structural design calculations; and other controls to include post-development stormwater management plans required by local governments

Complete Application
Permit Condition II.A.1.d.

Minor Projects – Less than 3 acres

- Application form, to include template for the sign
- Stormwater Pollution Prevention Plan;
- Groundwater Protection Plan;
- Pre-Construction Drainage Map;
- During Construction Drainage Map showing the proposed location of all drainage structures and associated access routes;
- Post Construction Drainage Map;

Complete Application
Permit Condition II.A.1.d.

Minor Projects – Less than 3 acres

- Annual Progress Map if permitted for longer than one year;
- Detailed Site Plan (Map) showing Limits of Disturbance and Receiving Waters
- Typical Design Details.

Complete Applications

- All SWPPPs and GPPs should be signed by someone with signature authority for the permittee. Same as for the application signature page.

- SWPPPs must be prepared by a Qualified Person. It is suggested that the QP sign and date the SWPPP.

“Qualified Person" means a person who is knowledgeable in the principles and practices of sediment and erosion controls, pollution prevention, and possesses the education and abilities to assess conditions at the proposed site that could impact stormwater quality and to assess the effectiveness of proposed stormwater controls to meet the requirements of this permit.

- ArcGIS Shapefile (.shp) preferred or AutoCAD Drawing (.dwg) or Google Earth .kmz for the limits of disturbance (LOD) must be polygon features (not polylines) and must be georeferenced. Digital files of the road centerlines with station numbers, the ROW, TCE and cut/fill limits, and locations of existing and proposed drainage systems including storm sewers, permanent stormwater management structures, culverts, outlet protection, etc. can also be submitted as separate files and may help speed up the review process.

When there are multiple receiving streams, include the primary one on the application form, but include an attachment on that page of the application listing the complete names of all receiving waters for the project.

Include the Geotechnical Reports when they are available along with the soils report. This is especially important when site specific soil conditions will have a big impact on the erosion and sediment controls selected.

SWPPPs cannot rely on general, generic, or vague explanations or statements in narrative sections. Must be clear, site specific and consistent with information provided on submitted application forms, site plans, GPP etc.

Site plans and details can be included in an appendix and attached separately if necessary.

Complete SWPPPs should cover everything in Parts II.F. through II.H. 5. & Parts III and IV.

SWPPP Narrative must address these items:

1. Description of all aspects of construction project to be covered under the application. Include total acres of disturbance, estimates of cut and fill and any known waste or borrow that may be required for the project.

2. Describe the ESC BMPs that are known and/or included in the site plans and quantity tables.

3. Provide realistic, estimated start and completion dates (should account for any public notice period and allow for the additional minimum 30- or 60-day review time needed once Contractor submits detailed SWPPP and GPP).

SWPPP Narrative must address these items:

4. Should not include sections of bmp manuals or specifications from DOH manuals unless it is a portion of specification that is site specific.

5. Should include narrative BMPs that are required conditions of the General Permit such as:
    1. All temporary and permanent vegetation stabilization time frames required by the General Permit in Parts II.H.3.b.2. and III.A.3. as applicable.

    2. Minimum SWPPP inspection requirements as outlined in Part III.B (and Part II.H.3.b.2. if applicable) of the General Permit.

    3. May also address Water Quality Requirements from Part III.C. and Required Reporting Requirements in Part I.d.

Chemical Treatment for Sediment Control

- To include the use of polymers as a BMP for a project, clear details on the product, dosing rate, methods and locations for applications, access and ability to provide increased maintenance should all be provided.

Permit Condition II.11.1.c.

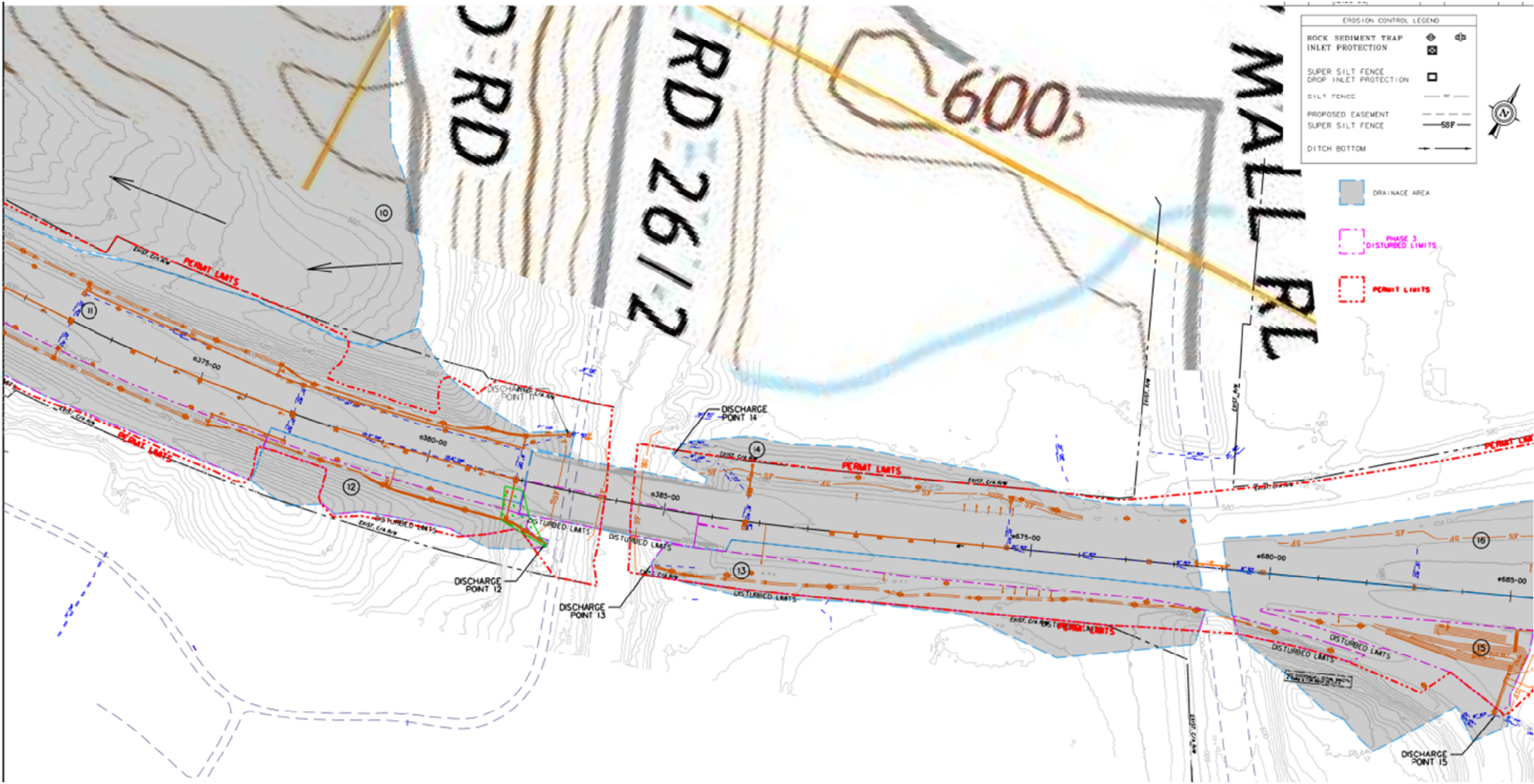
For Large Projects Only

Where post-construction peak discharge is 10% (or more) greater than the pre-construction peak discharges of 5 cubic foot per second or more for the 1-year, 24-hour storm, the permittee must either

1) Implement post construction stormwater management BMPs to reduce potential location erosion at the discharge point or
2) Provide justification for why post-construction stormwater management features are deemed unnecessary

All supporting calculations for BMPs and/or justification must be included in application.

Discharge Point ID	Receiving Stream	Latitude	Longitude	Total Drainage Area (ac)	Pre Construciton		Post Construction		
					Paved Area	1 yr 24 hr Peak Discharge (cfs)	1 yr 24 hr Peak Discharge (cfs)	Peak Discharge Change From Existing (cfs)	Peak Discharge Change from Existing (%)
1	Muddy Creek			19.06	1.40	10.71	11.63	0.92	9%
2	Muddy Creek			80.80	0.59	45.41	46.71	1.30	3%
3	Storm Sewer Anywheresville			8.98	1.61	11.97	15.44	3.47	29%
4	Storm Sewer Anywheresville			1.44	0.00	1.53	1.76	0.23	15%
5	Storm Sewer Anywheresville			3.15	0.24	3.11	3.39	0.28	9%
6	UT of Muddy Creek			5.77	1.32	5.46	6.26	0.80	15%
			Totals	119.20	5.16				


EROSION CONTROL LEGEND
ROCK SEDIMENT TRAP
INLET PROTECTION
SUPER SILT FENCE
DROP INLET PROTECTION
SILT FENCE
PROPOSED EASEMENT
SUPER SILT FENCE
SSF
DITCH BOTTOM
DRAINAGE AREA
PHASE 3 DISTURBED LIMITS
PERMIT LIMITS
RD 26/2
600
MALL RL
PERMIT LMTS
DISTURBED LMTS
DISCHARGE POINT 11
DISCHARGE POINT 12
DISCHARGE POINT 13
DISCHARGE POINT 14
DISCHARGE POINT 15
10
11
12
13
14
15
16
ø375-00
ø380-00
ø385-00
ø675-00
ø680-00
ø685-00

For DOH Projects:

DEP Stormwater does not consider the use of Wood Cellulose Mulch (i.e. Hydroseed) as adequate cover to be considered temporary cover in areas that require Enhanced BMPs. We may consider allowing it as temporary cover in non-enhanced areas if the SWPPP provides support to show it is equivalent to the use of straw or hay mulch at appropriate application rates

DEP Stormwater will not approve use of asphalt emulsions as mulch tackifier. Both items are included in DOH standard specifications so site specific SWPPPs cannot incorporate entire specs by reference or by including section in SWPPP or appendix.

STANDARD DETAILS

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, STANDARD DETAILS BOOK, VOLUME I, DATED MAY, 2016 & VOLUME II, DATED JANUARY, 2019, SHALL APPLY TO THE PROJECT. STANDARD, REVISED AND ADDED DETAILS MAY BE FOUND AT: http://transportation.wv.gov/highways/engineering/Pages/publications.aspx.

Specification exceptions include:
652 - Asphalt emulsion shall not be used as a tackifier in seeding and mulching.
Wood cellulose mulch is not an acceptable Enhanced Best Management Practice.

DRAINAGE

THE LOCATION OF ALL KNOWN CULVERTS, INLETS, AND OTHER DRAINAGE ITEMS SHOWN ON THE CONTRACT PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION FROM EXISTING PLANS AND FIELD INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL EXACT LOCATION AND ADJUSTMENTS IN THE FIELD TO ENSURE PROPER OPERATION AFTER REVIEW AND APPROVAL BY THE ENGINEER.

THE CONTRACTOR SHALL MAINTAIN WORKING STORM DRAINAGE SYSTEMS THROUGHOUT THE WORK AREAS AT ALL TIME DURING CONSTRUCTION. THE WORKING SYSTEM MAY CONSIST OF THE EXISTING STORM DRAINAGE SYSTEM, THE PROPOSED STORM DRAINAGE SYSTEM OR A COMBINATION THEREOF. NO ADDITIONAL PAYMENT OR COMPENSATION WILL BE MADE FOR THIS WORK. TEMPORARY DRAINAGE WILL BE REQUIRED DURING

WVDOH Standard and Supplemental Specifications contain specific information related to Erosion and Sediment Control, Environmental Permits and Waste and Borrow Sites in the following sections:

107.21 Protection of Rivers, Streams, and Impoundments.
107.27 Construction Access and Environmental Permits.
207.6 Disposal of Material with Waste outside WVDOH Right-of-Way Limits under 207.6.3.2;
211 Borrow Excavation with Borrow outside WVDOH Right-of-Way Limits under 211.3.2;
642 Temporary Pollution Control; and
652 Seeding and Mulching.

Links to the 2017 Standard Specifications and Supplemental Specifications are found on the following website:
https://transportation.wv.gov/highways/engineering/Pages/Specifications.aspx

Specification exceptions include:

652 – Asphalt emulsion shall not be used as a tackifier in seeding and mulching. Wood cellulose mulch is not an acceptable Enhanced Best Management Practice.

application form or reference to relevant part of SWPPP can be provided. For conditional approvals, instead of SWPPP can provide a word or pdf of narrative but should avoid copying same text in multiple places, such as in notes on site plans, and in attachment and in application forms unless it is identical. Narrative must address these items:

a) Description of all aspects of construction project to be covered under the application. Include total acres of disturbance, estimates of cut and fill and any known waste or borrow that may be required for the project.

a) Describe the ESC BMPs that are known and/or included in the site plans and quantity tables.

a) Provide realistic, estimated start and completion dates (should account for any public notice period and allow for the additional minimum 30- or 60-day review time needed once Contractor submits detailed SWPPP and GPP).

a) Should not include sections of bmp manuals or specifications from DOH manuals unless it is a portion of specification that is site specific.

a) Should include narrative BMPs that are required conditions of the General Permit such as:

1) All temporary and permanent vegetation stabilization time frames required by the General Permit in Parts II.H.3.b.2. and III.A.3. as applicable.

1) Minimum SWPPP inspection requirements as outlined in Part III.B (and Part II.H.3.b.2. if applicable) of the General Permit.

Complete plan set Part II.H.1.a.

a) All surface waters in and adjacent to the project
b) Limits of Disturbance – Must be visible on all site plans and drainage plans
c) Existing contours and cut/fill lines
d) All drainage areas delineated, and flow patterns identified (During Construction Drainage area maps).
e) All other major ESC features including existing drainage structures, all final storm water ditches pipes, catch basins and other drainage structures included as part of the project's final design.
f) Locations of temporary detour roads, stream crossings, causeways, demo areas included in the project.
g) Locations of all structural bmps

Complete plan set Part II.H.1.a.

Standard Design Details for the erosion and sediment control bmps that have been included in the Site Plans and Quantity Tables (i.e. typical design detail sheets for silt fences, ditch checks, etc.). Typical details for a project should specify the design dimensions for BMPs on that project.

Design Details

a)All drainages greater than 5 ac which will require a sediment basin. All sediment basin need to include grading details, and show stabilized inlets/outlets, dewatering structure and design details and calculations.

b)All drainage areas 5 ac or less must provide the required treatment volume. For very small traps it may be acceptable to show the general dimensions, inlet(s) and outlet rather than grading the structure in on the site plans. Must include required and provided sediment treatment volumes, cleanout elevation, stabilized inlet(s) and outlets, weir outlet design and supporting calculations.

Design Details

a) Where previously the plans provided for rock check with sump with or without floc log instead provide correctly sized and designed sediment basins and traps in accordance with Parts II.H.3.b.10.- 11. For locations where the appropriately sized structure is not provided, in accordance with II.H.3.b.12. you must
   a. Demonstrate that providing the required treatment volumes is not attainable and that use of surface dewatering devices is not feasible
   b. Provide a narrative description of enhanced BMPs to be used in lieu of the portion of treatment volume that cannot be provided
   c. Justify the use of the alternative BMPs by demonstrating that what you propose is at least as equally protective as properly sized traps/basins.

Design Details

All Temporary and Permanent Drainage Structures including all ditches, traps, basins, culverts and post construction stormwater management structures. Sizes and design calculations should also be included. Usually there is a set of summary tables in the site plans to cover all of this and a drainage report or stack of calculations also included somewhere.

Design Details

Road designs and profiles – all roads need to be identified as temp or permanent and as New/improved, incidental or Maintenance only identify road classifications per II.H.1.d. Any deviation in road design requirements from GP requirements must include narrative justifications for why those deviations are necessary and how water quality will be protected.

Design Details

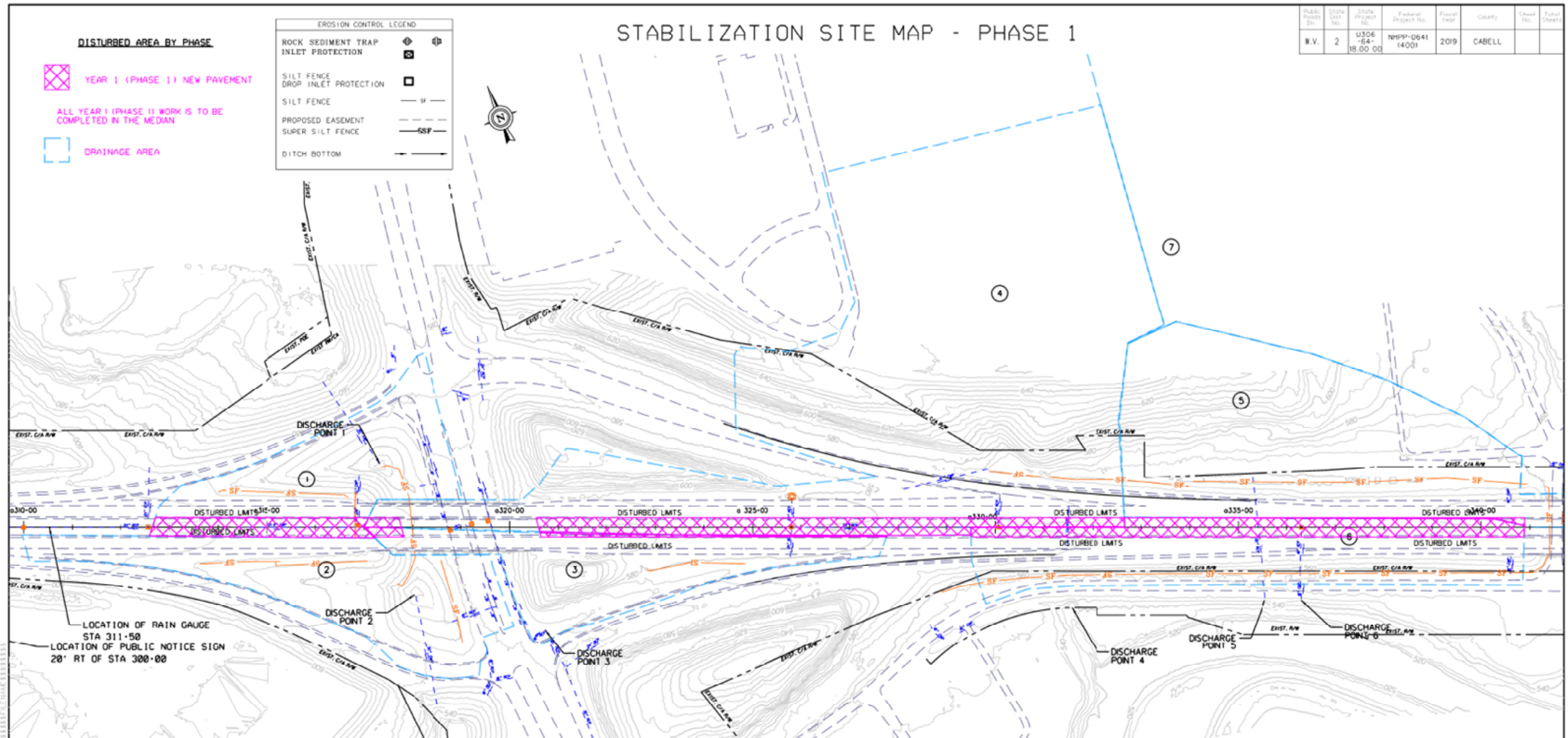
Engineered stabilization practices (e.g. steep slope stabilizations, ditch stabilization, outlet protection, gabion baskets or stream bank stabilization, etc.)

Cut and Fill cross sections should be provided along with the cut/fill lines and limits of disturbance.

Details for slope stabilization.

Proposed Annual Progress Maps identifying portions of site that are undisturbed, disturbed, permanently stabilized (identify method/type of stabilization) for each year.

Proposed Annual Progress Map



Pre-Construction Drainage Map reflecting the existing conditions, delineating all drainage areas in the project, and identifying all discharge points from project, all receiving waters and waters passing through the project area, existing drainage structures and impervious areas.

**** Plans often do not provide total drainage areas and will try to ignore areas where stormwater can run onto the project or pass through the project and comingle with their site.***

Pre-Construction Drainage Map

Part II.A.1.c of the General WV/NPDES Construction Stormwater Permit No.WV0115924 requires a “Pre-Construction Drainage Map” be submitted with the application. Part II.H.1.c. requires the calculation of pre-construction peak discharge rates for all discharges from that site based on a 1 year, 24-hour storm. Please provide a “Pre-Construction Drainage Map” with the following information provided on the map.

Drainage patterns

Watersheds delineated for all drainages in the project including drainage from outside the project area.

- Total acreage for each watershed.
- Peak Discharge (ft^3/sec.) for each outlet discharging from the site based on a 1 year, 24-hour storm.
- All Storm Water Discharge Points from the project, labeled with an outlet number that will correspond to the Outlet Markers installed onsite.

All existing drainage structures including culverts, ditches, storm drain systems, etc.

Nearest receiving streams, springs, surface waters to the site.

Limits of all area to be disturbed (LOD).

Existing roads including public roads from which access to the site will be constructed.

A minimum of 5’ contours.

A North arrow.

Property boundaries and easements including rights-of-way and temporary construction easements.

A legend with any information required to describe the project in detail.

Post Construction Drainage Map

- Part II.A.1.c of the General WV/NPDES Construction Stormwater Permit No.WV0115924 “Post Construction Drainage Map”. Please provide a “Post Construction Drainage Map”. The map should include the following information.

1. Post Construction Drainage Patterns
2. Watersheds delineated for each stormwater discharge from the project area.
    a. Total Acreage for each watershed.
    b. All Stormwater Discharge Points identified with all outlets labeled.
    c. Peak Discharge (ft^3/sec.) for each outlet discharging from the site based on a 1 year, 24-hour storm.
3. Location and identification of all Final Storm Water Conveyance, Post Construction Storm Water Management BMPs, and Post Development Stormwater Management Structures required by local governments.
4. Limits of all area to be disturbed (LOD).
5. Final grading with minimum of 5’ contours.
6. A North arrow.
7. Property boundaries and easements.
8. A legend with any information required to describe the project in detail.

SEDIMENT CALCULATIONS

End of Year 2 (Phase 2)									End of Year 3 (Phase 3)								
	Within Permit Boundaries									Within Permit Boundaries							
Total Drainage Area (ac)	Total Disturbed Drainage Area to be Stabilized (ac)	Disturbed Area to be Stabilized Seeded (ac)	Disturbed Area to be Stabilized Paved (ac)	Total Undisturbed Drainage Area (ac)	Total Disturbed and Undisturbed Area (ac)	Bypassed Clean Water (ac)	Sediment Volume Required (cuft)	Sediment Volume Provided (cuft)	Total Drainage Area (ac)	Total Disturbed Drainage Area to be Stabilized (ac)	Disturbed Area to be Stabilized Seeded (ac)	Disturbed Area to be Stabilized Paved (ac)	Total Undisturbed Drainage Area (ac)	Total Disturbed and Undisturbed Area (ac)	Bypassed Clean Water (ac)	Sediment Volume Required (cuft)	Sediment Volume Provided (cuft)
2.58	1.35	1.25	0.10	0.96	2.31	0.31	8,172	10,830	2.58	0.00	0.00	0.00	2.31	2.31	2.58	0	10,830
3.02	0.00	0.00	0.00	2.55	2.55	3.02	0	7,230	3.02	2.06	1.92	0.14	0.49	2.55	0.33	9,684	14,430
2.41	0.00	0.00	0.00	2.27	2.27	2.41	0	3,620	2.41	1.62	1.43	0.19	0.65	2.27	0.00	8,676	10,820
14.63	1.67	1.60	0.07	2.31	3.98	10.51	14,832	15,020	14.63	0.01	0.01	0.00	3.97	3.98	14.62	36	15,020
5.16	1.18	0.90	0.28	0.79	1.97	0.78	15,768	16,110	5.16	0.00	0.00	0.00	1.97	1.97	5.16	0	16,110
3.47	0.00	0.00	0.00	3.02	3.02	3.47	0	5,990	3.47	1.25	0.85	0.40	1.77	3.02	0.00	12,492	13,200
145.88	1.61	1.28	0.33	3.16	4.77	138.30	27,288	28,850	145.88	1.35	0.94	0.41	3.42	4.77	144.50	4,968	32,450
	NOT USED																
19.06	2.76	2.10	0.66	5.03	7.79	11.05	28,836	36,090	19.06	1.85	1.26	0.59	5.94	7.79	17.19	6,732	46,890
80.80	1.75	1.48	0.27	2.25	4.00	73.40	26,640	28,820	80.80	1.16	0.90	0.26	2.84	4.00	79.61	4,284	28,820
8.98	3.28	2.56	0.72	5.57	8.85	0.00	32,328	36,130	8.98	2.12	1.66	0.46	6.73	8.85	0.00	32,328	46,940
1.44	0.00	0.00	0.00	1.07	1.07	1.44	0	10,810	1.44	0.87	0.65	0.22	0.20	1.07	0.00	5,184	18,010
3.15	0.00	0.00	0.00	2.51	2.51	3.15	0	18,000	3.15	2.27	0.57	1.70	0.24	2.51	0.00	11,340	25,200
5.77	2.06	1.81	0.25	2.36	4.42	0.15	20,232	21,700	5.77	0.57	0.49	0.08	3.85	4.42	5.20	2,052	21,700
4.37	0.00	0.00	0.00	3.05	3.05	4.36	36	7,220	4.37	2.22	1.27	0.95	0.83	3.05	0.00	15,732	21,620
3.54	2.65	2.14	0.51	0.90	3.55	0.00	12,744	14,430	3.54	0.05	0.00	0.05	3.50	3.55	3.49	180	14,430
5.40	3.86	3.34	0.52	1.17	5.03	0.00	19,440	21,610	5.40	0.03	0.00	0.03	5.00	5.03	5.35	180	21,610
10.80	0.00	0.00	0.00	9.47	9.47	10.80	0	10,820	10.80	7.04	7.01	0.72	2.43	9.47	0.00	38,880	46,820
2.88	0.00	0.00	0.00	2.53	2.53	2.88	0	7,210	2.88	1.54	1.53	0.01	0.99	2.53	0.49	8,604	21,610
2.54	1.01	0.80	0.21	0.88	1.89	0.21	8,388	21,600	2.54	0.00	0.00	0.00	1.89	1.89	2.54	0	21,600
2.27	0.00	0.00	0.00	1.60	1.60	2.27	0	18,010	2.27	1.11	0.91	0.20	0.49	1.60	0.00	8,172	21,610
6.07	1.40	1.20	0.20	1.18	2.58	0.36	20,556	21,620	6.07	0.00	0.00	0.00	2.58	2.58	6.07	0	21,620
2.25	0.00	0.00	0.00	0.73	0.73	2.22	108	710	2.25	0.54	0.47	0.07	0.19	0.73	0.45	6,480	7,910
0.85	0.39	0.30	0.09	0.42	0.81	0.00	3,060	4,110	0.85	0.00	0.00	0.00	0.81	0.81	0.81	144	4,110
9.68	0.54	0.43	0.11	3.98	4.52	0.00	34,848	37,820	9.68	0.91	0.66	0.25	3.61	4.52	0.00	34,848	37,820
10.23	0.44	0.30	0.14	0.69	1.13	4.60	20,268	22,960	10.23	0.22	0.16	0.06	0.91	1.13	10.01	792	22,960
357.23	**25.95**	**21.49**	**4.46**	**60.45**	**86.40**	**275.69**	**293,544**	**427,320**	**357.23**	**28.79**	**22.69**	**6.79**	**57.61**	**86.40**	**298.40**	**211,788**	**564,140**

DRAINAGE AREAS AND

Discharge Point ID	Receiving Stream	Easting	Northing	Total Drainage Area (ac)	End of Year 1 (Phase 1)									
					Total Drainage Area (ac)	Within Permit Boundaries					Bypassed Clean Water (ac)	Sediment Volume Required (cuft)	Sediment Volume Provided (cuft)	T Dr A
						Total Disturbed Drainage Area to be Stabilized (ac)	Disturbed Area to be Stabilized Seeded (ac)	Disturbed Area to be Stabilized Paved (ac)	Total Undisturbed Drainage Area (ac)	Total Disturbed and Undisturbed Area (ac)				
1	Merritt Creek	1,598,808.9557	519,607.6118	2.58	2.58	0.40	0.00	0.40	1.91	2.31	2.18	1,440	7,230	
2	Merritt Creek	1,598,771.6455	519,330.1321	3.02	3.02	0.00	0.00	0.00	2.55	2.55	3.02	0	7,230	
3	Mud River	1,598,993.1506	519,160.1459	2.41	2.41	0.11	0.00	0.11	2.16	2.27	2.30	396	3,620	
4	Mud River	1,600,013.4286	518,789.9295	14.63	14.63	0.89	0.00	0.89	3.09	3.98	13.74	3,204	4,220	1
5	Mud River	1,600,387.8952	518,651.8209	5.16	5.16	0.02	0.00	0.02	1.95	1.97	5.14	72	1,700	
6	Mud River	1,600,456.2613	518,624.4656	3.47	3.47	0.88	0.00	0.88	2.14	3.02	2.59	3,168	5,990	
7	Mud River	1,601,096.0564	518,189.5616	145.88	145.88	0.61	0.00	0.61	4.16	4.77	145.27	2,196	14,440	14
8														
9	Mud River	1,602,038.3578	517,982.9274	19.06	19.06	1.20	0.50	0.70	6.59	7.79	18.36	2,520	25,260	1
10	Mud River	1,603,363.0076	517,605.7312	80.8	80.80	0.50	0.00	0.50	3.50	4.00	80.30	1,800	14,420	8
11	Storm Sewer System	1,604,942.7603	518,056.0134	8.98	8.98	1.36	0.00	1.36	7.49	8.85	7.00	7,128	36,130	
12	Mud River	1,605,003.7249	517,832.1657	1.44	1.44	0.17	0.17	0.00	0.90	1.07	1.44	0	10,810	
13	Mud River	1,605,218.8371	517,894.4533	3.15	3.15	0.00	0.00	0.00	2.51	2.51	3.15	0	18,000	
14	Mud River	1,605,156.3363	518,121.9224	5.77	5.77	0.96	0.00	0.96	3.46	4.42	4.81	3,456	14,490	
15	Storm Sewer System	1,606,915.8329	518,426.3326	4.37	4.37	0.43	0.00	0.43	2.62	3.05	3.94	1,548	3,600	
16	Storm Sewer System	1,606,956.9137	518,975.2478	3.54	3.54	0.44	0.00	0.44	3.11	3.55	3.10	1,584	3,630	
17	Storm Sewer System	1,607,179.4834	51,972.5414	5.4	5.40	0.49	0.00	0.49	4.54	5.03	4.91	1,764	18,010	
18	Storm Sewer System	1,607,381.1410	518,602.1682	10.8	10.80	0.80	0.00	0.80	8.67	9.47	10.00	2,880	10,820	1
19	Mud River	1,608,319.6168	519,076.5923	2.88	2.88	0.00	0.00	0.00	2.53	2.53	2.88	0	7,210	
20	Storm Sewer System	1,608,226.8851	519,403.3832	2.54	2.54	0.30	0.00	0.30	1.59	1.89	2.24	1,080	10,800	
21	Mud River	1,609,683.6092	519,636.6347	2.27	2.27	0.00	0.00	0.00	1.60	1.60	2.27	0	18,010	
22	Mud River	1,609,726.1130	519,917.2621	6.07	6.07	0.58	0.00	0.58	2.00	2.58	5.49	2,088	14,430	
23	Mud River	1,609,797.0818	519,775.0646	2.25	2.25	0.00	0.00	0.00	0.73	0.73	2.25	0	710	
24	Mud River	1,609,970.5455	520,090.2646	0.85	0.85	0.00	0.00	0.00	0.81	0.81	0.85	0	510	
25	Unnamed Tributary of Mud River	1,610,732.0837	520,428.8493	9.68	9.68	1.53	0.00	1.53	2.99	4.52	0.00	34,848	37,820	
26	Unnamed Tributary of Mud River	1,610,809.8442	520,462.1898	10.23	10.23	0.09	0.00	0.09	1.04	1.13	10.14	324	22,960	1
			Totals	357.23	357.23	11.76	0.67	11.09	74.64	86.40	337.37	71,496	312,050	3

Stabilization Map and Requirements

1. Stabilization Site Map that includes the type of final stabilization methods for all disturbed areas.
   a. Include a legend that accurately depicts the type of each stabilization method to be employed.
   b. A minimum of 5’ contours.
   c. A North arrow and map oriented to the north.
   d. Limits of all area to be disturbed (LOD).
2. Narrative description of Temporary and Final Stabilization Practices in SWPPP. Including site specific schedules of the practices.
   a. Final Stabilization Schedule should track Phase Construction Schedule.
   b. Temporary Stabilization Schedule should meet the requirements of Part III.A.3. of the General WV/NPDES Water Pollution Control Permit.
2. Narrative description vegetative practices to be employed on the project. Ensure they meet or are equally protective of water quality as the requirements in Section 3.08 thru 3.12 of the WVDEP Erosion and Sediment Control Best Management Practice Manual.

Offsite Waste and Borrow Areas

Areas 1 acre or greater must be included in the permit application either with the original submittal or as a modification. Areas less than 1 acre are not required to be in the application but must have E&SC installed.

Water Withdrawal

During periods of active withdrawal, the permittee and/or operator shall consult DWWM's Water Withdrawal Guidance Tool daily and document the recommendations.

http://www.dep.wv.gov/WWE/wateruse/Pages/WaterWithdrawal.aspx

Enhanced Best Management Practices

Enhanced BMPs are required for projects discharging to:

- Tier 2 and 3 Waters
- Waters with a sediment-related Total Maximum Daily Load (TMDL)
- 303(d) listed waters which have a sediment-related impairment

Monitoring for TMDLs has been eliminated

Groundwater Protection Plans (GPPs)

- Must be submitted with the application for review and approval
- Part II.I. Covers specific requirements
- Facility Map must be included
- Karst Mitigation Plan is required for projects located in areas of Karst topography
- Must be signed by Permittee

Qualified Person

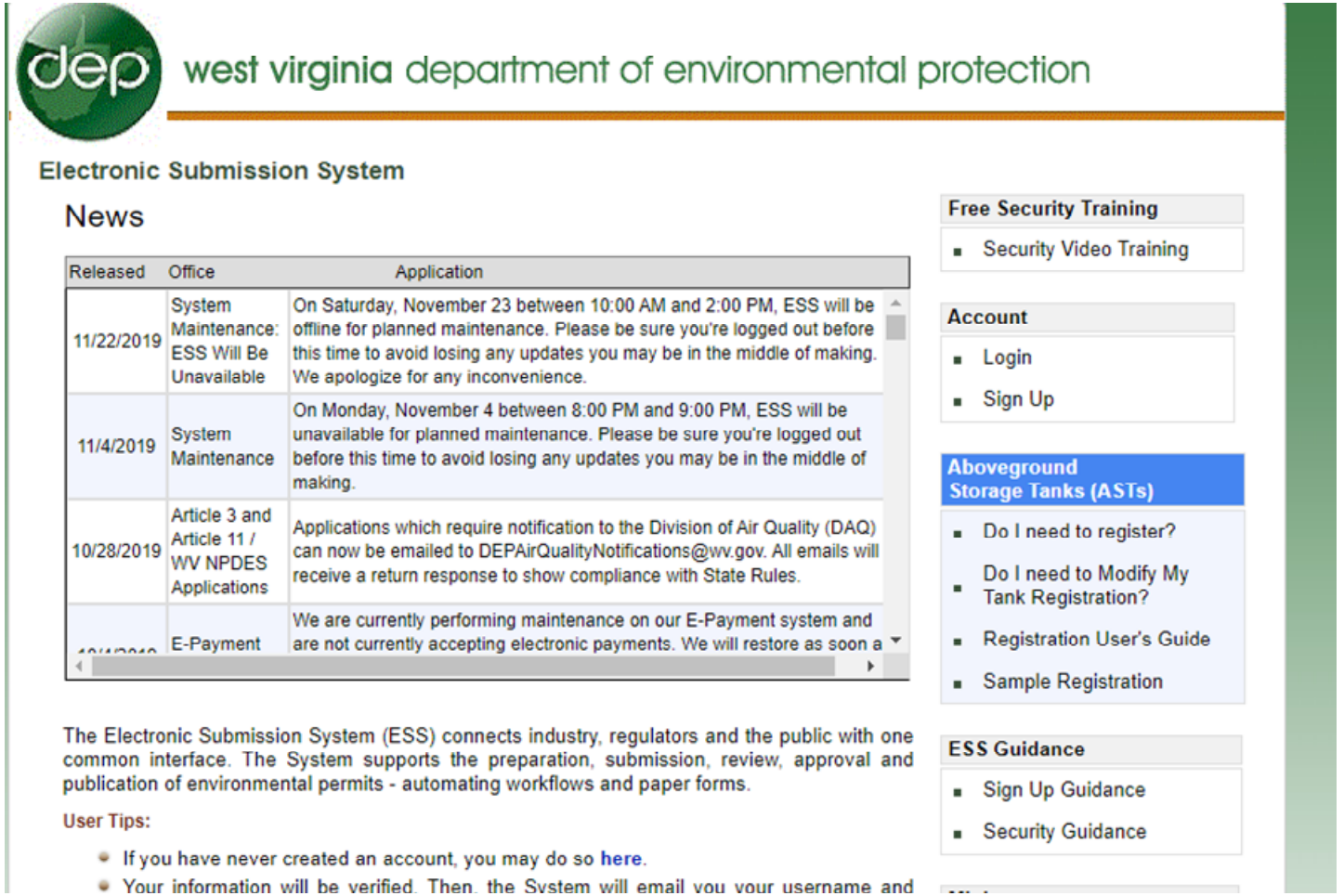
"Qualified Person" means a person who is knowledgeable in the principles and practices of sediment and erosion controls, pollution prevention, and possesses the education and abilities to assess conditions at the proposed site that could impact stormwater quality and to assess the effectiveness of proposed stormwater controls to meet the requirements of this permit.

- SWPPP must be prepared by a Qualified Person
- SWPPP must identify the designated Qualified Person who will be responsible for all on-site inspections and reporting
- Part III.B. of the GP details what must be included in inspections, when they are to be completed, and all related documentation

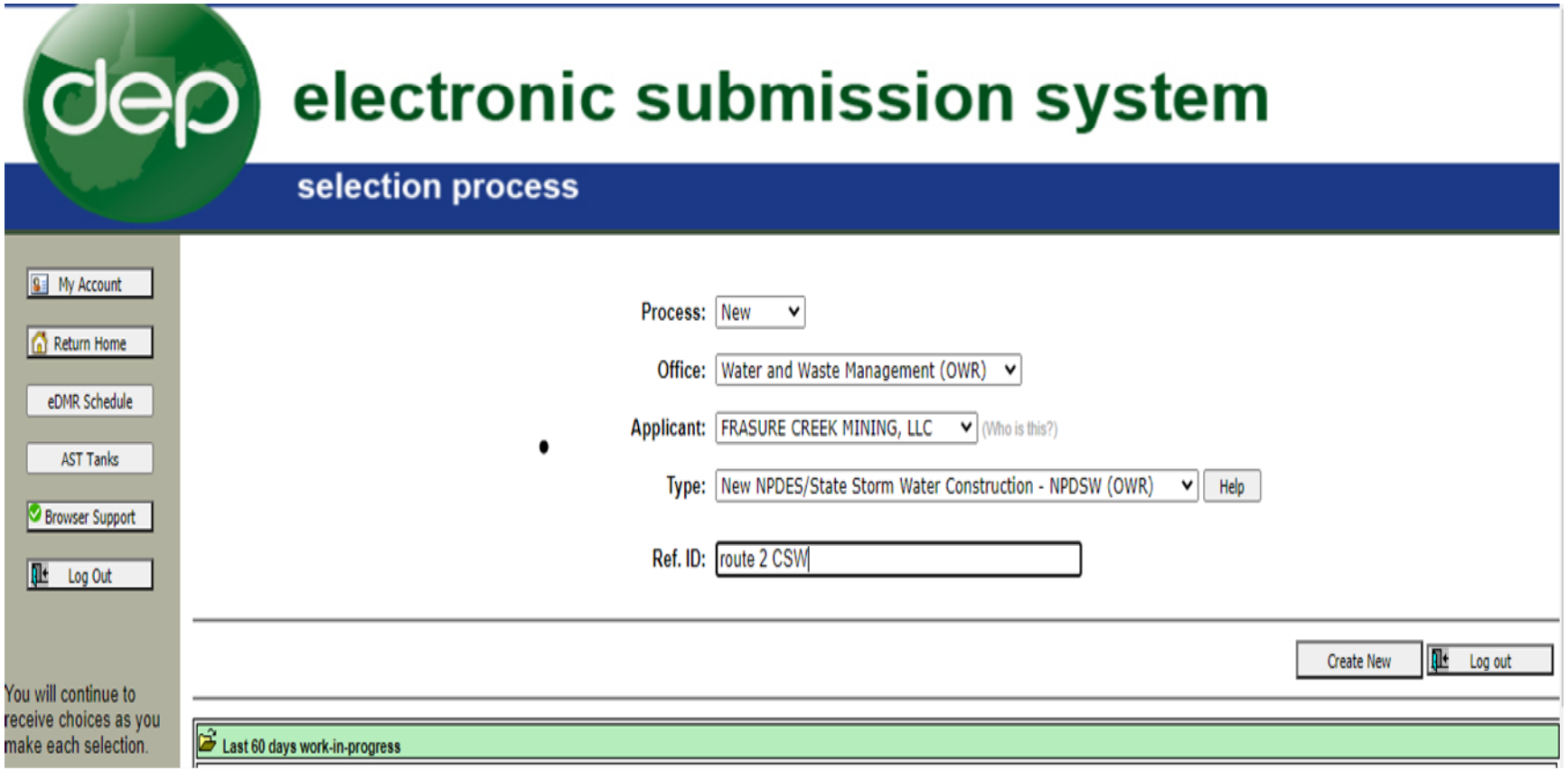
Electronic Submission System (ESS)

- All registrations must be submitted through ESS
- All modifications must be submitted through ESS
- ALL sections must be filled out and applicable attachments uploaded prior to review

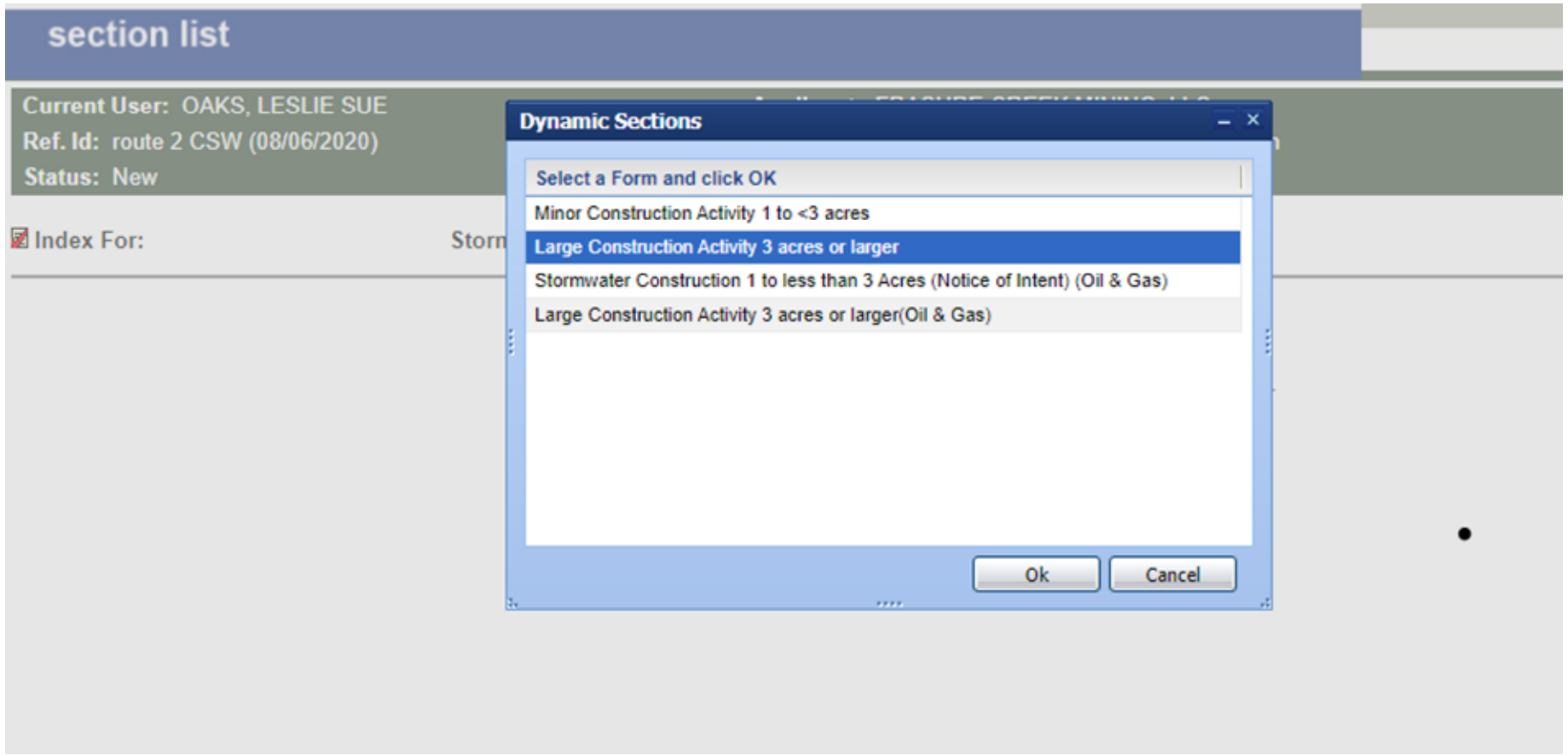
Getting an ESS account: https://apps.dep.wv.gov/eplogin.cfm "Sign Up" and "Sign Up Guidance"



To Create a New Application



For Large Construction Activity 3 Acres or Larger



Current User: OAKS, LESLIE SUE	**Applicant:** FRASURE CREEK MINING, LLC
Ref. Id: route 2 CSW (08/06/2020)	**Type:** New NPDES/State Storm Water Construction
Status: New	**Permit No.:** New/Pending

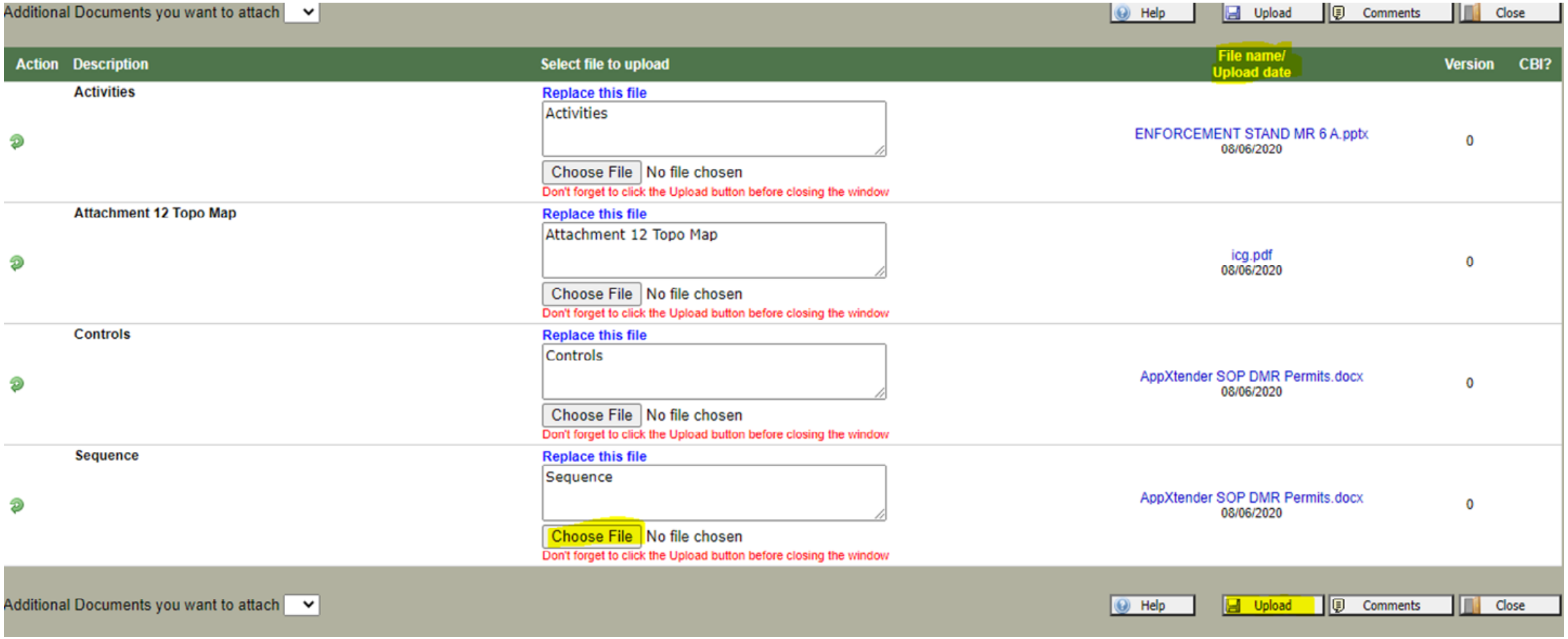
Index For: Storm Water Applications [Add]

Menu For: Large Construction Activity 3 acres or larger [Remove]

Thursday August 06, 2020

"Promoting a Healthy Environment."

Please use the latest version of Chrome or Firefox.



When attaching files, you first click “choose file” then “upload”. Make sure all files are uploaded and labeled correctly in the right column. The SWPPP must be attached in Section XYZ and information must match ALL entries in the ESS application.

WVDOH Standard and Supplemental Specifications contain specific information related to Erosion and Sediment Control, Environmental Permits and Waste and Borrow Sites in the following sections:

107.21 Protection of Rivers, Streams, and Impoundments.
107.27 Construction Access and Environmental Permits.
207.6 Disposal of Material with Waste outside WVDOH Right-of-Way Limits under 207.6.3.2;
211 Borrow Excavation with Borrow outside WVDOH Right-of-Way Limits under 211.3.2;
642 Temporary Pollution Control; and
652 Seeding and Mulching.

Links to the 2017 Standard Specifications and Supplemental Specifications are found on the following website:
https://transportation.wv.gov/highways/engineering/Pages/Specifications.aspx

Specification exceptions include:

652 – Asphalt emulsion shall not be used as a tackifier in seeding and mulching. Wood cellulose mulch is not an acceptable Enhanced Best Management Practice.

For WVDOH Projects

The Contractor shall provide the co-Applicant #1 signature page to the WVDOH. The WVDOH will submit the permit modification making the contractor co-Applicant #1. The contractor shall submit the Stormwater Pollution Prevention Plan (SWPPP), Groundwater Protection Plan (GPP), and the calculations and documentation required in the Permit directly through the WVDEP ESS website at https://apps.dep.wv.gov/eplogin.cfm.

For WVDOH Projects

- Construction activities cannot be initiated until the WVDEP has approved the aforementioned documents.

- Contractor and/or property owner shall be responsible for obtaining NPDES registration for any offsite waste and/or borrow sites; the WVDOH shall not be included as a co-Applicant/Permittee on those areas.

2019 WV/NPDES Construction Stormwater Permit

For WVDOH Projects

- The Contractor shall be responsible for paying the NPDES registration fee, any modification fees, and the annual renewal fees associated with NPDES registration. The fees for NPDES registration and modifications can be found in the applicable application instructions found on the WVDEP ESS website.

- The Contractor shall be responsible for any Notices of Violation and any enforcement actions or fines associated with those violations.

2019 WV/NPDES Construction Stormwater Permit

For WVDOH Projects

- A copy of the NPDES Registration and any modifications to the Registration, the SWPPP, Erosion and Sediment Control Plan, Spill Control and Countermeasures Plan, GPP, and must be kept onsite for review.

- A Notice of Termination (NOT) terminating the NPDES Registration shall be filed once satisfactory stabilization of all disturbed areas has been achieved.

2019 WV/NPDES Construction Stormwater Permit

ADDITIONAL BMPS

- When an inspection indicates the BMPs are ineffective at protecting waters of the state, the permittee shall immediately implement additional controls
- Update the SWPPP and GPP to reflect the new BMPs
- Either obtain approval of the additional BMPs during a site visit conducted by the Director, or submit a modification application in accordance with this permit

No sediment-laden water shall be allowed to leave the site without going through an appropriate BMP

But…it happens

- Permittees who find that the approved BMPs are ineffective at protecting receiving waters and who are unable to identify or employ BMPs capable of preventing sediment laden runoff from leaving the project site shall immediately cease further land disturbance until such time that the unauthorized discharge ceases.

Ask yourself…

Could someone take the information submitted on the application and attachments and use it to implement my stormwater plan and protect waters of the State?

Would I know what needed to be done and what was supposed to happen at every stage of work?

Are the plans clear, specific, and buildable?

Can the SWPPP and GPP be easily enforced?

Resources

- ✓Construction Stormwater General Permit https://dep.wv.gov/WWE/Programs/stormwater/csw/Documents/Reissued%20permit%20WV0115924%201-10-19%20signed.pdf
- ✓Water Quality Standards Tier 3 Waters & Trout Streams

https://dep.wv.gov/WWE/Programs/wqs/Pages/default.aspx

- ✓Total Maximum Daily Loads (TMDLs)/303(d) List of Impaired Streams https://dep.wv.gov/WWE/watershed/TMDL/Pages/default.aspx

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