

SAMPLE

APPOMATTOX ROAD CULVERT REPLACEMENT PROJECT

STORMWATER POLLUTION PREVENTION PLAN

Project Name: Appomattox Road Culvert Replacement

Site Location: Appomattox Road and Wolf Run Creek

County: Fayette County

Latitude: 38°02'15" N

Longitude: 84°32'46" W

Owner: Lexington-Fayette Urban County Government

Owner Address: Division of Engineering
101 East Vine Street, Lexington, Kentucky 40507

Contact Person: David Carroll

Title: Project Manager

Phone Number: 859-258-3426

Site Project Description:

The Appomattox Road Culvert Replacement project is a 0.8 acre project that will involve the replacement of an existing double 12' X 6.2' box culvert, associated roadway and utilities repairs and improvements with streambank stabilization to Wolf Run Creek. This culvert replacement will require grading, improvements to the sanitary sewer, installation of stormsewer, backfilling, repairing of the roadway, and armorment of the disturbed embankment with turf reinforcement matting and some hard features. The total disturbed area for the project is 0.8 acres and the pre and post construction runoff coefficient will remain unchanged at $C = 0.5$, typical for a residential neighborhood. The current Fayette County Soil Survey from the National Resources Conservation Service, indicates that the existing soil types in the project area are a silty clay loam and a rocky silty clay loam in the stream area. The discharge quality will be improved because of the addition of turf reinforcement matting and streambank stabilization. The clear span of 24 feet will reduce the turbulent effect of a center wall in the stream flow.

Drawing Reference:

Appomattox Culvert Replacement Project 521, Grading and Erosion Control Plan drawing sheet 4.

OWNER's name hereinafter is referred to as Owner.

PROJECT NAME description hereinafter is referred to as Project.

STATE PERMIT

This Stormwater Pollution Prevention (SWPPP) Plan is to be implemented in compliance with the standard conditions of the Kentucky General KPDES Permit of Stormwater Point Source Discharges, Construction Activities, Permit No. KYR10____. All Best Management Practices (BMP) activities for the Project will be covered under the KYR10____ Permit.

LOCAL GOVERNMENT REQUIREMENT

This SWPPP Plan includes any requirements specified on sediment and erosion control plans, stormwater management plans or permits that have been approved by other state or local officials. Upon submittal of the Notice of Intent, other requirements for surface water protection are incorporated by reference into and are enforceable under this permit (even if they are not specifically included in the BMP Plan required by this permit). This provision does not apply to master or comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit issued for the construction site by state or local officials.

SEDIMENT AND EROSION CONTROL MEASURES

This BMP Plan includes a description of what sediment and erosion control measures will be used and when they will be implemented.

1. Soil Stabilization Practices: Existing vegetation shall be preserved where possible. All disturbed areas of the site shall be stabilized. Stabilization shall begin within 14 days on areas of the site where construction activities have permanently or temporarily ceased. When snow cover causes delays, stabilization shall begin as soon as possible.

Stabilization practices include seeding, mulching, placing sod, planting trees or shrubs, and using geotextile fabrics and other appropriate measures.

2. Perimeter Structural Practices: Silt fences or other equivalent structural practices shall be used on all side and down slope borders of the site. Alternatively where required, a sediment basin shall be used that provides 3,600 cubic feet of storage capacity per disturbed acre drained. For common drainage locations that serve more than 10 disturbed acres at 1 time, a sediment basin will be used if possible.

Structural practices include protecting drain inlets and outlets and using silt fences, earthen dikes, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, reinforced soil retaining systems, gabions, sediment basins and other appropriate measures. The installation of these devices may be subject to Section 404 of the Clean Water Act.

3. Stormwater Management Devices: Management devices shall be installed during construction to control the pollutants in stormwater discharges that will occur after construction has been completed. Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive flow so that the original physical and biological characteristics and functions of the receiving waters, such as the hydroperiod and hydrodynamics, are maintained and protected. Stormwater management devices should remove 80% of Total Suspended Solids that exceed predevelopment levels.

Management devices include velocity dissipation devices, stormwater retention and detention basins, wet ponds, vegetated swales and natural depressions used for flow reduction, runoff infiltration devices, sequential systems that combine several devices and other appropriate measures. The installation of these devices may be subject to section 404 of the CWA.

The permittee is not responsible for the maintenance of these devices once discharges associated with construction activity have been eliminated.

OTHER SITE CONTROL MEASURES

No solid materials, including building materials, shall be discharged to waters of the Commonwealth, except as authorized by a Section 404 permit.

1. Waste Materials: All waste materials will be collected and stored in a metal dumpster. The dumpster will meet all local and any State solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied when the dumpsters are 90% full. No construction waste materials will be buried on-site. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted and the individual who manages the day-to-day site operations will be responsible for seeing that these procedures are followed.
2. Hazardous Waste: The use of hazardous materials is not anticipated within the site. If hazardous materials are used, they will be disposed of in the manner specified by local or State regulation or by the manufacturer. Site personnel will be instructed in these practices, and the individual who manages day-to-day site operations will be responsible for seeing that these practices are followed.
3. Sanitary Waste: All sanitary waste will be collected from the portable units a minimum of 1 time per week by a licensed sanitary waste management contractor, as required by local regulation.
4. Off-site Vehicle Tracking: Stabilized construction entrances will be installed to reduce vehicle tracking of sediments. The paved street adjacent to the site entrance will be swept to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin.
5. Concrete Wash Pit: Prior to construction activities involving the placement of concrete, a concrete truck wash pit shall be installed near the points of access to the site. The contractor shall coordinate with concrete suppliers and their drivers, the proper procedures for disposal of concrete waste. Concrete washout areas shall be clearly posted.
6. Stream Turbidity Barriers: All construction activities within the stream channel shall be preceded with placement of protection using a turbidity barrier, placed, cleaned and removed each day of activity in the stream bed. Barrier shall be erected along the side of channel, where construction activities are to take place, and to allow the main channel flow to be uninterrupted.

NON-STORMWATER DISCHARGES

This SWPPP Plan shall identify and ensure the implementation of appropriate pollution prevention measures for any non-stormwater component of a discharge as listed below, except for flows from fire fighting activities.

All discharges covered by this permit shall be composed entirely of stormwater except for discharges from fire fighting activities, fire hydrant flushing, potable water sources, waterline flushing, irrigation or lawn watering, detergent free building or pavement washing where spills or leaks of toxic materials have not occurred or have been completely removed, air conditioning condensation, natural springs, and uncontaminated groundwater sources.

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The presence of hazardous substances or oil in the stormwater discharges shall be minimized in accordance with the BMP Plan. Coverage under the KYR10_____ permit does not relieve the permittee of the reporting requirements of 40 CFR Part 117 and 40 CFR Part 302.

CONTRACTORS AND SUBCONTRACTORS

This SWPPP Plan clearly states the contractor or subcontractors that will implement each control measure identified in the BMP Plan. All contractors identified in the BMP Plan must sign a copy of the certification statement below before conducting any professional service at the site:

"I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System permit that authorizes the stormwater discharges associated with industrial activity from the construction site identified as part of this certification."

Signature	For	Responsible for
Name:		
Title:		
Date:		
Name:		
Title:		
Date:		
Name:		
Title:		
Date:		

MAINTENANCE

Maintenance activities will include the routine weekly inspection report and a response to initiate the appropriate corrective action as noted. The policing of litter and debris shall be throughout each work day. Contractor shall be responsible for clean up at the end of each day's activities. Removal of dropped earth material on streets shall be **immediate**. Any earth material too small for shoveled collection shall be swept. Mud, dirt, and other debris shall be kept off the streets and travel way at all times.

INSPECTIONS

Qualified personnel shall inspect all stormwater control measures, discharge locations, vehicle exits, disturbed areas of the construction site and material storage areas at least once every 7 days (and within 24 hours of the end of a storm that is 0.5 inches or greater) and areas that have been temporarily or finally stabilized at least once a month. Revisions to the BMP Plan based on the results of the inspection shall be implemented within 7 days.

Control measures shall be inspected to ensure correct operation. Accessible discharge locations shall be inspected to ensure that velocity dissipation devices are effective in preventing significant impacts to receiving waters. Vehicle exits shall be inspected for evidence of, or the potential for, off-site sediment tracking. Disturbed areas and material storage areas that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system.

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Built up sediment will be removed from silt fence when it has reached 1/3 the height of the fence. Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground. The sediment basin, if required, will be inspected for depth of sediment, and built up sediment will be removed when it reaches 50% of the design capacity or at the end of the job.

Diversion ditches will be inspected and any breaches promptly repaired. Temporary and permanent seeding the plant will be inspected for bare spots, washouts, and healthy growth. A maintenance inspection report will be made after each inspection. The Contractor will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance report. Personnel selected for inspection and maintenance responsibilities will receive the required training to carry out the inspections and maintenance.

A report summarizing the scope of the inspection, names and qualifications of personnel making the inspection, the date of the inspection, major observations relating to the implementation of the BMP Plan, and any corrective actions taken will be made and kept as part of the BMP Plan for a least 3 years after the date of inspection, or until 1 year after coverage under this permit ends. The report shall be signed in accordance with Part II of the KPDES permit.

SEQUENCE OF MAJOR ACTIVITIES

Construction Activity	Schedule Consideration
Construction access – entrance to site, construction routes, areas designated for equipment parking	This is the first land-disturbing activity. As soon as construction begins, bare areas will be stabilized with gravel and temporary vegetation.
Sediment traps and barriers – basins, traps, sediment fences, outlet protection	After construction site is accessed, principal basins will be installed, with the addition of more traps and barriers as needed during grading.
Runoff control – diversions, perimeter dikes, outlet protection	Key practices will be installed after the installation of principal sediment traps and before land grading. Additional runoff control measures may be installed during grading.
Runoff conveyance system – storm drains, channels, inlet and outlet protection, slope drains	Principal conveyance systems will be installed with runoff control measures. The remainder of the systems may be installed after grading.
Land clearing and grading – site preparation (cutting, filling, and grading, sediment traps, barriers, diversions, drains, surface roughening)	Major clearing and grading will begin after installation of principal sediment and key runoff-control measures, and additional control measures will be installed as grading continues. Borrow and disposal areas will be cleared as needed. Trees and buffer areas will be marked for preservation.
Surface stabilization – temporary and permanent seeding, mulching, sodding, riprap	Stabilization will begin with 14 days on areas of the site where construction has permanently or temporarily (for 21 days or more) ceased.

Construction Activity

Schedule Consideration

Building construction – buildings, structures, utilities, paving

During construction, erosion and sedimentation control measures will be maintained as needed, such as construction entrances and silt fence. Gravel areas will be installed for building material storage.

Landscaping and final stabilization – topsoiling, trees and shrubs, permanent seeding, mulching, sodding riprap

This is the last construction phase. All open areas will be stabilized, including borrow and spoil areas. Temporary control structures will be removed and the area will be seeded and mulched.

Construction in streambed – bank stabilization, culvert replacement, sanitary sewer replacement.

Protection in the streambed must be placed immediately prior to working in the streambed or on the stream bank. Protection devices shall be cleaned and removed at the end of each work day. Channel flow is not to be blocked or dammed by the protection devices/barriers. Construction activities should be limited to only one side of the stream at a time if possible.

The SWPPP Plan includes the KPDES Stormwater General Permit and all erosion control or BMP drawings/exhibits associated with this project.

Contractor: _____

Date: _____