# WATER QUALITY GENERAL CERTIFICATION OF UTILITY LINE ACTIVITIES ALONG STREAMS

IN EFFECT: NOVEMBER 15, 2012

Condition 11 of the March 19, 2012 Section 401 Water Quality Certification (WQC) of the U.S. Army Corps of Engineers' Nationwide Permit (NWP) # 12 Utility Line Backfill and Bedding states:

*Utility lines placed parallel to the stream shall be located at least 50 feet from an intermittent or perennial stream, measured from the top of the stream bank. The cabinet may allow for construction within the 50-ft buffer if avoidance and minimization efforts are shown and adequate methods are utilized to prevent soil from entering the stream.*

From March 19, 2012 through November 15, 2012, WQC required an individual water quality certification if the utility line was proposed to be placed closer than 50 feet from the top of the stream bank of an intermittent or perennial stream. After November 15, 2012, by order of the Director, we will now issue a general certification if all of the following criteria are met:

1. The project meets all the remaining certification conditions of the 2012 NWP 12;
2. The applicant cannot avoid placing the utility line within 50 feet of the stream bank; and
3. The applicant submits an adequate sediment and erosion control plan (see page 3 for requirements).

**If a utility line project qualifies for a general certification of NWP 12 and is within 50 feet of the stream bank, a WQC application and a site-specific sediment and erosion control plan <u>must</u> be submitted for review by WQC before construction and construction-related activities can proceed. This is in addition to the Stormwater Pollution Prevention Plans for construction sites one (1) acre or more in size. Approval of the sediment and erosion control plan by the WQC Section is required before construction activities can begin.**

## WHY SEDIMENT AND EROSION CONTROL PLANS AND PRACTICES?

Construction activities near streams, rivers, and lakes have the potential to cause water pollution and stream degradation if erosion and sediment controls are not properly installed and maintained. In order to effectively reduce erosion and sedimentation impacts, plans and practices must be designed, located, installed, and maintained in effective operating condition at all times during land disturbing activities to prevent the discharge of sediment and other pollutants into waters of the Commonwealth. Sediment is a major contributor to the pollution of surface waters in Kentucky and construction activities are a major source of sediment and stream siltation. Disturbed soil, if not managed properly, can be washed off-site during storms and can cause major impairment in the receiving waters. Excessive silt causes adverse impacts such as disruption of aquatic organism life cycles, reduced passage, higher drinking water treatment costs for sediment removal, and the alteration of waters' physical/chemical properties, resulting in degradation of its quality. Therefore, erosion prevention and sediment control practices are the key parameter for successful water quality protection.

Applicants should design the site construction and development by selecting erosion prevention and sediment controls and practices to accommodate the unique hydrologic and geologic conditions of the site. Some of the factors to be considered include: local development requirements and/or codes, precipitation patterns for the area when the project will be underway, soil types, slopes, layout of structures for the site, sensitivity of nearby waters and natural areas, and safety concerns. A number of structural practices (e.g., mulching, vegetated buffer strips, grassed swales, retention/detention ponds, silt

fence and haybale barriers, stone check dams, inlet protection, infiltration practices) and non-structural practices (minimizing disturbance, good housekeeping) have shown to be efficient, cost effective, and versatile for construction site developers to implement.

## EROSION PREVENTION AND SEDIMENT CONTROL STRATEGIES

Appropriate erosion prevention and sediment control measures and other stormwater management practices must be designed, installed, and maintained. Applicants are encouraged to perform work within surface waters during periods of low-flow or no-flow. To ensure that all sources of soil erosion and sediment on the construction site are adequately controlled, the following strategies should be employed:

- **Sediment and erosion control measures shall not be placed in surface waters.** The design and placement of temporary erosion control measures shall not be conducted in a manner that may result in disruption of flow in wetlands or streams.
- **Maximize the protection of existing vegetation.** Natural vegetation should be retained, protected or supplemented to the maximum extent practical, and vegetation not intended for removal should be adequately marked, fenced, or flagged as necessary.
- **Avoid disturbing critical areas.** Areas such as sinkholes, streams, wetlands, stream buffers, highly erodible soils, and steep slopes should be avoided to the greatest extent feasible. Mark, fence or flag areas in the field that should be protected from construction activities such as clearing, grubbing, grading, mowing, staging activities, material storage and/or other related activities.
- **Minimize size and duration of disturbed soil.** Limit site preparation of activities such as grading and clearing to where they are absolutely necessary and consistent with plan and daily schedules of construction activities.
- **Manage stormwater.** Prevent stormwater from entering areas and leaving areas of disturbed soil by using vegetated strips, diversion dikes and swales, filter berms, sediment traps and basins, check dams, stabilized construction entrances, and silt fences or filter tubes/wattles. Reduce the amount of sediment and water velocity produced from areas of disturbed soils by using vegetation, riprap, sod, seeding and mulching or blankets, as well as the use of structural measures including diversion, check dams, slope drains, and storm drain protection.
- **Stabilize soils**. Stabilize soil with seeding and mulch as soon as possible after disturbance. Soil disturbed by construction activities should be stabilized within 14 days of ceasing construction activities. Erosion prevention measures such as erosion control mats/blankets, mulch, hydro applications, tracking, or soil binders shall be implemented on disturbed areas within 24 hours or as soon as practical after completion of disturbance/grading or following the end of activities. Final stabilization practices shall be initiated on any site where construction activities have been suspended for more than 180 days.
- **Use low-impact/biological/recyclable materials**. To the extent possible, construction managers should utilize natural or recyclable materials as temporary measures than can remain on-site after the completion of construction. One example is using mulch berms as opposed to silt fences, which must be removed and disposed after the completion of construction activities has occurred and vegetation has become well-established. This also reduces waste and removal costs.

SEDIMENT AND EROSION CONTROL PLAN REQUIREMENTS

Erosion prevention and sediment control plans submitted to WQC must contain detailed drawings, a site description and supporting information (narrative), including the following:

1. Narrative discussion of why the utility line must be placed within 50 feet of the top of the stream bank;
2. Construction details with dimensions, cross-sectional views and plan views to scale, showing location of utility lines and all surface waters;
3. Site development plan with the proposed construction area and construction-related activities areas clearly outlined, estimated project start and end dates, project type and description of all construction activities at the site;
4. The location of all surface waters on a 7.5 Minute topographical map, including streams, wetlands, sinkholes, and stormwater discharges from the site;
5. The types, depth, slope, locations and limitations of the soils and geology, natural landscape features, drainage patterns, flooding potential, and other pertinent information that helps identify both beneficial conditions and potential problems of a site;
6. Locations of temporary and permanent erosion, sediment, and stormwater management structures; construction details with dimensions, cross-sectional views and/or plan views with enough information for the reviewer and contractor to understand how to install the practice;
7. Approximate slopes anticipated after major grading activities;
8. Areas of soil disturbance, including an outline of areas which are not to be disturbed;
9. Location and technical specifications of any bank stabilization;
10. Location and boundaries of buffer zones, if any, existing or established to protect waters of the Commonwealth located within the boundaries of the project;
11. Locations of stockpile and/or borrow areas;
12. Separate sheets for staged plans to show detail, including the clearing and grubbing phase, initial grading plan with perimeter control and the final grading plan with final erosion prevention and sediment control plans and stormwater management controls in place.

**Approved plans and specifications for projects are incorporated by reference and are enforceable parts of a certification. Any changes to the approved plans or specifications require written approval by WQC. For questions or clarifications, contact the Water Quality Certification Section at (502) 564-3410.**

REFERENCES

Kentucky Pollutant Discharge Elimination System (KPDES) General Permit for Stormwater Discharge Associated with Construction Activities (KYR10). Locate on line at: http://water.ky.gov/permitting/Pages/WastewaterDischarge.aspx

Best Management Practices (BMPs) for Controlling Erosion, Sediment, and Pollutant Runoff from Construction Sites. Planning and Technical Specifications Manual for Stormwater Pollution Prevention Plans. Revised October 2009. Technology Transfer Program, Kentucky Transportation Center, University of Kentucky.

General Certification of Nationwide Permit #12, Utility Line Backfill and Bedding, 2012. Locate on line at: http://water.ky.gov/permitting/Pages/CertificationNationwidePermits.aspx