# Discharges in Impaired or High Quality Watersheds

## Special Requirements

Projects located adjacent to water bodies identified by TDEC as impaired (303d List) or high quality are subject to additional requirements (See Table 1 and Table 2).

Discharges that could increase loadings of a pollutant that is identified as causing, or contributing to, an impairment of a water body on the list of impaired waters (303d List), or which would cause degradation of waters designated by TDEC as high quality waters are subject to additional requirements. To obtain and maintain coverage under Land Disturbance Permit, the permittee must satisfy, at a minimum, the following additional requirements for discharges into waters impaired by siltation (or discharges upstream of such waters and because of the proximity to the impaired segment and the nature of the discharge is likely to contribute pollutants of concern on amounts measurable in the impaired segment that may affect the impaired waters) and for discharges to water identified by TDEC as high quality waters:

***A.*** The SWPPP must certify that erosion prevention and sediment controls used at the site are designed to control storm water runoff generated by a 5-year, 24-hour storm event. Capacity must be designed to assure that a 2-year 24-hour storm event will not discharge. When clay and other fine particle soils are found on site, additional physical or chemical treatment of storm water runoff may be used.

***B.*** The permittee shall perform scheduled inspections of the erosion and sediment controls at least twice every calendar week and immediately before and after a rain event. Inspections shall be performed at least 72 hours apart. The permittee must certify on a weekly basis, on the Construction Site Inspection Certification Form the following:

i. That the twice weekly inspections of erosion and sediment controls and of outfall points were performed;

ii. Whether or not all planned and designed erosion prevention and sediment controls are installed and in working order. The certification must be executed by the property owner/ developer or project manager. The record of certifications must be kept at the construction site with a copy of the SWPPP. Records must be maintained on site from the time the construction commences until the permit is terminated. Records must be retained after coverage is terminated for a period of three (3) years.

***C.*** In the event finds that the discharger is complying with the SWPPP, then the permittee may update the SWPPP and implement the changes to limit further impairment of the receiving stream. If the permittee does not implement the SWPPP changes within seven (7) days of receipt of notification, the permittee will be subject to enforcement action. The project must be stabilized until such time as the SWPPP is re-developed and approved. No earth disturbing activities, except those necessary for stabilization, are authorized until the revised SWPPP is submitted and approved.

***D.*** For an outfall draining a total of five (5) or more acres, a temporary (or permanent) sediment basin that provides storage for a calculated volume of runoff from each acre drained for a 5-year, 24-hour storm, or equivalent control measures, shall be provided until final stabilization of the site. A drainage area of 5 or more acres includes both disturbed and undisturbed portions of the site or areas adjacent to the site, all draining though a common outfall. Where an equivalent control measure is substituted for a sediment retention basin, the equivalency must be justified. Runoff from any undisturbed acreage should be diverted around the disturbed area and the sediment basin and, if so, can be omitted from the volume calculation. Sediment storage expected from the disturbed areas must be included and a marker installed signifying a cleanout need.

***E.*** Revisions to the SWPPP may be required to prevent a negative impact to legally protected state or federally listed aquatic fauna, their habitat, or the receiving waters.

## Buffer Zone Requirements

Buffer zones are required for discharges into impaired or high quality waters. A 60-foot natural riparian buffer zone adjacent to the receiving stream designated as impaired or high quality waters shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect “waters of the state” located within or immediately adjacent to the boundaries of the project. Buffer zones are not sediment control measures and should not be relied upon as primary sediment measures. Rehabilitation and enhancement of a natural buffer is allowed, if necessary, for improvement of its effectiveness of protection of the “waters of the state.” The buffer zone requirement only applies to new construction sites.

The riparian buffer zone should be established between the top of stream bank and the disturbed construction area. The 60-feet criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 25 feet at any measured location.

Every attempt should be made for construction activities to remain outside the buffer zone. BMPs providing equivalent protection to a receiving stream as a natural riparian buffer may be used at the construction site. Such equivalent BMPs shall be designed to be as effective in reduction of sediment in storm water runoff as a natural riparian zone. A justification for use and a design of equivalent BMPs shall be included in the SWPPP. Such equivalent BMPs are expected to be routinely used at construction projects typically located adjacent to surface waters. These projects include but are not limited to: sewer line construction, roadway construction, utility line or equipment installation, greenway construction, construction of a permanent outfall or a velocity dissipating structure, etc.

TABLE 1 IMPAIRED AND HIGH QUALITY WATER BODIES IN HAMILTON COUNTY, CHATTANOOGA & SIGNAL MOUNTAIN WITH SOURCES OF IMPAIRMENT

Clean Water Act 303 d List (TDEC 2006)

| STREAM NAME | Source of Pollutant | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Land Development | Discharges from Urban Areas | Hydro Modifications | Upstream Impoundment | Collection System Failure | Combined Sewer Overflow | Contaminated Sediment | Non-industrial Permitted | Spills | Source in Other state | Abandoned Mining | Pasture Grazing | Channelization | Undetermined |
| Bee Creek | | X | | | | | | | | | | | | |
| Chattanooga Creek | | X | X | | | X | X | X | X | | | | | |
| Chattanooga Creek | | | | | | | | | | X | | | | |
| Unnamed Tributary to Chattanooga Creek | | | X | | | X | | | | | | | | |
| Citico Creek | | | X | | X | | | | | | | | | |
| Unnamed Tributary to Citico Creek | | X | X | | X | | | | | | | | | |
| Dobbs Branch | | | X | | X | | | | | | | | | |
| Friar Branch | X | X | | | X | | | | | | | | | |
| Friars Branch | X | X | | | X | | | | | | | | | |
| Gillespie Springs | | X | X | | | | | | | | | | | |
| Hurricane Creek | | | | | | | | | | | | | | |
| Johnson Branch | | | | | | | | | | | | | | |
| Mountain Creek | X | X | | | | | | | | | | | | |
| Mountain. Creek | | | | | | | | | | | | | | |
| N. Chickamauga Creek | | | X | | | | | | | | X | | | |
| Unnamed Tributary to N. Chick. Creek | X | | X | | | | | | | | | | | |
| Unnamed Tributary to N. Chick (near Grubb Road) | | | | | | | | | | | | | | X |
| N. Market St. Branch | | | | | X | | | | | | | | | |
| Nickajack Reservoir | | | | | | | | | | | | | | |
| Ninemile Branch | | | | | | | | | | | | X | X | |
| Rogers Branch | | X | | X | | | | | | | | | | |
| Rogers Branch | | X | | | | | | | | | | | | |
| Ryall Springs Branch | | | | | | | | | | | | | | |
| S. Chickamauga Creek | X | X | | | X | | | | | X | | | X | |
| Shoal Creek | | X | | | | | | | | | | | | |
| Short Creek | | X | | | | | | | | | | | | |
| Spring Creek | | | | | X | | | | | | | | | |
| Stringers Branch | | X | X | | X | | | | | | | | | |
| Unnamed Tributary to Chickamauga Reservoir (near Daisy Dallas Rd) | | | | | | | | | | | | | | |
| Wilkerson Branch | | X | | | | | | | | | | | | |
| Wolftever Creek | | X | | | | | | | | | | | | |

TABLE 2 IMPAIRED AND HIGH QUALITY WATER BODIES IN HAMILTON COUNTY, CHATTANOOGA & SIGNAL MOUNTAIN WITH SOURCES OF IMPAIRMENT AND TMDL PRIORITY

| Clean Water Act 303 d List (TDEC 2006) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Cause of Impairment | | | | | | | | | | | | | | | |
| STREAM NAME | High Quality | Stream Miles | PCBs | Dioxin | Habitat Loss due to alteration in stream-side littoral vegetative cover | Low Dissolved O2 | pH | Escherichia cioli | Phosphorus | Oil & grease | Nutrients | Unionized Ammonia | Hydrologic Modifications | Loss of biological integrity due to siltation | Habitat loss due to stream flow alteration | Physical substrate habitat alterations | Loss of biological: integrity due to undetermined cause |
| Bee Creek | | 1.6 | | | | | | M | | | | | | | | | |
| Chattanooga Creek | | 8.4 | L | L | H | M | | M | | L | | | | | | | |
| Chattanooga Creek | | 3.5 | | | | | | M | | | | | | | | | |
| Unnamed tributary to Chattanooga. Creek | | 1.4 | | | H | | | M | | | | | | | | | |
| Unnamed Trib. to Chickamauga Res. (at Daisy Dallas Rd) | | 3.4 | | | | | | | | | | | | | | | L |
| Citico Creek | | 6.1 | | | L | M | | M | | | M | | | | | | |
| Unnamed Trib. to Citico Ck | | 1.2 | | | H | M | | M | M | | | | L | | | | |
| Dobbs Branch | | 5.3 | | | H | M | | M | | | | M | | | | | |
| Friar Branch | X | 19 | | | H | | | M | | | M | | | H | | | |
| Friars Branch | | 0.1 | | | H | | | M | | | M | | | H | | | |
| Gillespie Springs | | 0.06 | | | H | | | M | | | | | | | | | |
| Hurricane Creek | X | | | | | | | | | | | | | | | | |
| Johnson Branch | X | | | | | | | | | | | | | | | | |
| Mackey Branch | X | | | | | | | | | | | | | | | | |
| Mountain Creek | | 3.2 | | | H | | | | | | | | | | | | |
| Mountain. Creek | | 0.3 | | | | | | | | | | | | | | | |
| N. Chickamauga Creek | | 4.1 | | | | | N/A | | | | | | | | | H | |
| N. Chickamauga Creek | | 1.8 | | | | | N/A | | | | | | | | | H | |
| Unnamed Tributary to N. Chick. Creek | | 4.3 | | | H | | | | | | | | | H | | | |
| Unnamed Tributary to N. Chick (near Grubb Road) | | 0.3 | | | | | | | | | | | | | | | |
| N. Market St. Branch | | 2.5 | | | | | | M | | | | | | | | | |
| Nickajack Reservoir | | 3.4 | L | L | | | | | | | | | | | | | |
| Ninemile Branch | | 0.5 | | | | M | | | | | | | | | | H | |
| Rogers Branch | | 1.9 | | | | M | | | | | | | | | N/A | | |
| Rogers Branch | | 10 | | | | | | L | | | | | | | | | |
| Rogers Branch | | 0.3 | | | N/A | M | | | | | | | | | | | |
| Ryall Spring Branch | X | | | | | | | | | | | | | | | | |
| S. Chickamauga Creek | X | 18 | | | | | | M | M | | | | | H | | H | |
| Shoal Creek | X | 5.4 | | | | | | M | | | | | | | | | |
| Short Creek | | 2.5 | | | | | | M | | | | | | | | | |
| Spring Creek | X | 6.6 | | | | | | M | | | | | | | | | |
| Stringers Branch | | 5.2 | | | H | | | M | | | | | | | | | |
| Wilkerson Branch | | 5.8 | | | | | | L | | | | | | | | | |
| Wolftever Creek | | 11 | | | | | | L | | | | | | | | | |

Priority: H - High M - Medium L - Low N/A - Not Applicable

## References

Tennessee Department of Environment and Conservation (TDEC). August 2006. Final Version, Year 2006, 303(d) List. http://state.us/environment/wpc/publications/303d/2006.pdf.

TDEC. June 17, 2005. Tennessee General NPDES Permit for Discharges Associated with Construction Activities. http://state.tn.us/environment/wpc/stormh2o/TNR100000.pdf