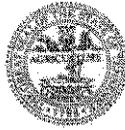


**Attachment 1. Permits Acquired by Applicant and Permit Terms and Conditions**

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STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
KNOXVILLE ENVIRONMENTAL FIELD OFFICE  
DIVISION OF WATER POLLUTION CONTROL  
3711 MIDDLEBROOK PIKE  
KNOXVILLE, TN 37921

April 9, 2009

Mr. Kurt Stafford  
KUB Project Manager  
Knoxville Utilities Board  
835 East Jackson Avenue  
Knoxville, TN 37915

Subject: **General Permit for Utility Line Crossings  
Aquatic Resource Alteration Permit (ARAP) NR0903.027  
Goose Creek Siphon Replacement Project  
Knoxville Utilities Board  
Knoxville, Knox County, Tennessee**

Dear Mr. Stafford:

We have reviewed your application for the proposed 700' of utility line replacement under the Tennessee River at mile 646.45. Pursuant to the *Tennessee Water Quality Control Act of 1977* (T.C.A. § 69-3-101 et seq.) and supporting regulations the Division of Water Pollution Control is required to determine whether the activity described in the attached notice of coverage will violate applicable water quality standards.

This activity is governed by the *General Permit for Utility Line Crossings*. The work must be accomplished in conformance with accepted plans and information submitted in support of application NR0903.027 and the limitations and conditions set forth in the *General Permit for Utility Line Crossings* (enclosed). It is the responsibility of the permittee to ensure that all contractors involved with this project have read and understand the permit conditions before the project begins.

**Please note that construction activities must be accomplished in a manner that prevents erosion and stabilizes both the streambed and stream bank, if disturbed. Fill activities shall be separated from flowing waters and all contours must be returned to pre-project conditions.** In addition, adequate erosion controls must be installed prior to construction and maintained during construction of the project. All disturbed areas must be revegetated or otherwise stabilized upon completion of construction. Please make the necessary provisions for these circumstances.

We appreciate your attention to the Aquatic Resource Alteration Permit program. If you have any questions, please contact Mr. Jonathon Burr at (865) 594-5520 or by e-mail at [Jonathon.Burr@tn.gov](mailto:Jonathon.Burr@tn.gov).

Sincerely,

A handwritten signature in cursive script that reads "Natalie Harris".

Natalie R. Harris, DWPC Manager  
Knoxville Environmental Field Office

Encl: NOC and copy of general permit  
CC: DWPC, Knoxville EFO Permit File  
Cathy Elliott, USACOE, Lenoir City



Under the Aquatic Resource Alteration  
**General Permit for Utility Line Crossings**

Tennessee Department of Environment and Conservation  
Division of Water Pollution Control  
401 Church Street, 6th Floor, L&C Annex  
Nashville, Tennessee 37243-1534

**ARAP - NR0903.027**

Under authority of the Tennessee Water Quality Control Act of 1977 (TWQCA, T.C.A. 69-3-101 et seq.) the Division of Water Pollution Control has determined the activity described below would not violate applicable water quality standards.

This activity is governed by the *General Permit for Utility Line Crossings* (effective July 1, 2005) issued pursuant to the TWQCA. The work must be accomplished in conformance with accepted plans, specifications, data and other information submitted in support of application NR0903.027 and the terms and conditions set forth in the above referenced general permit.

**PERMITTEE:** Knoxville Utilities Board

**AUTHORIZED WORK:** 700' of utility line replacement under the Tennessee River at mile 646.45

**LOCATION:** Tennessee River mile 646.45, Knox County

**WATERBODY NAME:** Ft. Loudoun Lake/Tennessee River

**EFFECTIVE DATE:** 09-APR-09                      **EXPIRATION DATE:** 09-APR-10

This does not preclude requirements of other federal, state or local laws. In particular, work shall not commence until the applicant has received the federal §404 permit from the U. S. Army Corps of Engineers, a §26a permit from the Tennessee Valley Authority or authorization under a Tennessee NPDES Storm Water Construction Permit where necessary. This permit may also serve as a federal §401 water quality certification (pursuant to 40 C.F.R. §121.2) since the planned activity was reviewed and the division has reasonable assurance that the activity will be conducted in a manner that will not violate applicable water quality standards (T.C.A. § 69-3-101 et seq. or of § § 301, 302, 303, 306 or 307 of *The Clean Water Act*).

The state of Tennessee may modify, suspend or revoke this authorization or seek modification or revocation should the state determine that the activity results in more than an insignificant violation of applicable water quality standards or violation of the TWQCA. Failure to comply with permit terms may result in penalty in accordance with T.C.A. §69-3-115.

A handwritten signature in cursive that reads "Paul E. Davis".

Paul E. Davis, P.E.  
Director, Division of Water Pollution Control

## General Permit for Utility Line Crossings

Effective Date: July 1, 2005  
Expiration Date: June 30, 2010

This general permit authorizes the construction, maintenance, repair, rehabilitation or replacement of utility line crossings of navigable and non-navigable streams. For the purpose of this general permit, bodies of water defined as navigable pursuant to §10 of the *Rivers and Harbors Act of 1899*, are subject to different restrictions than all other waters regarding the specific construction methodologies to be employed.

Failure to comply with the terms and conditions of this permit is a violation of the *Tennessee Water Quality Control Act of 1977* and is subject to penalty in accordance with T.C.A. §69-3-115.

### Exclusions

This general permit shall not be used to authorize activities in the following circumstances:

- 1) where the proposed project involves more than one crossing of the same stream by gravity sewer lines;
- 2) where a portion of the proposed activity is located in a component of the National Wild and Scenic River System, a State Scenic River, waters designated as Outstanding National Resource Waters;
- 3) where the proposed activity may adversely affect wetlands, except as provided for in item 2) of the Terms and Conditions section below;
- 4) where a portion of the proposed activity is located in any waterway which is identified by the department as having contaminated sediments, and where the activity will likely mobilize the contaminated sediments;
- 5) when the proposed activity will adversely affect a species formally listed on either state or federal lists of threatened or endangered species or their critical habitat;
- 6) when the department determines that the proposed activities, either individually or cumulatively, may result in degradation to waters of the state; or
- 7) when an individual permit is otherwise required.

Projects not qualifying for authorization under this general permit, may be authorized by an individual permit, provided that all requirements of the *Tennessee Water Quality Control Act of 1977* are met.

### Notification

Applicants proposing the construction, maintenance, repair, rehabilitation or replacement of utility line crossings of navigable and non-navigable streams under this general permit shall notify the division by submission of an original, signed application (form CN-1091) along with the following minimum information:

- (a) a cover letter explaining the scope of the project;
- (b) a USGS topographical map showing the exact location of the proposed project;
- (c) a single copy of construction plans and drawings which include all dimensions and specifications for the proposed work, as well as pollution control methods and/or structures, and method of excavation/trenching.

Work shall not commence until the applicant has received written authorization from the division that the activities may proceed under this general permit or that an individual permit has been issued.

All activities covered under this general permit shall comply with all terms and conditions contained hereinafter.

### Terms and Conditions

- 1) The work shall be accomplished in conformance with the accepted plans, specifications, data and other information submitted in support of the above mentioned application and the limitations, requirements, and conditions set forth herein.
- 2) Applicant is responsible for obtaining the necessary authorization pursuant to applicable provisions of §10 of *The Rivers and Harbors Act of 1899*; §404 of *The Clean Water Act* and §26a of *The Tennessee Valley Authority Act*, as well as any other federal, state or local laws.

- 3) Applicant is responsible for obtaining coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Construction Activities for construction sites involving clearing, grading or excavation that result in an area of disturbance of one or more acres, and activities that result in the disturbance of less than one acre if it is part of a larger common plan of development or sale.
- 4) New utility line crossings shall be located such as to avoid permanent alteration or damage to the integrity of the stream channel. Large trees, steep banks, rock outcroppings etc., should be avoided.
- 5) In the case of proposed utility lines, excluding gravity sewer, that follow the stream gradient or otherwise parallel the stream channel, the number of crossings shall be minimized. Where cumulative impacts are likely because of numerous crossings proposed, an individual permit may be required.
- 6) The crossing shall be designed to prevent the impoundment of normal or base flows. Base flow is the usual or normal flow of the stream that is supplied primarily by groundwater from springs and seeps, but not affected by rapid runoff during and after rainfall.
- 7) The alignment of new utility line crossings shall intersect the stream channel as close to 90 degrees or as perpendicular as possible. Alignment shall be no less than 45 degrees angle from the centerline of the stream.
- 8) In the case of streams with bedrock streambeds, provisions shall be made to prevent the loss of stream flow due to fracturing of the bedrock.
- 9) Backfill activities shall be accomplished in a manner that stabilizes the streambed and banks to prevent erosion. All contours shall be returned to pre-project conditions and the completed activities may not disrupt or impound stream flow.
- 10) The excavation and fill activities associated with the utility line crossing of non-navigable streams shall be kept to a minimum and shall be separated from flowing waters. The crossing shall be constructed in the dry to the maximum extent practicable, by diverting flow utilizing cofferdams, berms, temporary channels or pipes. Temporary diversion channels shall be protected by non-erodible material and lined to the expected high water level.
- 11) Excavated materials, removed vegetation, construction debris, and other wastes shall be removed to an upland location and properly stabilized or disposed of in such a manner as to prevent reentry into the waterway.
- 12) The excavation and fill activities associated with utility line crossing of navigable streams as defined by §10 of the *Rivers and Harbors Act of 1899*, may be accomplished within the water column.
- 13) Sediment shall be prevented from entering waters of the state. Erosion and sediment controls shall be designed according to the size and slope of disturbed or drainage areas to detain runoff and trap sediment and shall be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices.
- 14) Erosion and sediment control measures shall be in place and functional before earth moving operations begin, and shall be constructed and maintained throughout the construction period. Temporary measures may be removed at the beginning of the work day, but shall be replaced at the end of the work day.
- 15) Sediment should be removed from sediment traps, silt fences, sedimentation ponds, and other sediment controls as necessary, and shall be removed when design capacity has been reduced by 50%. Discharges from sediment basins and traps shall be through a pipe or lined or well-grassed channel so that the discharge does not cause erosion.
- 16) Litter, construction debris, and construction chemicals exposed to storm water shall be picked up prior to anticipated storm events (e.g. forecasted by local weather reports), or otherwise prevented from becoming a pollutant source for storm water discharges (e.g., screening outfalls, daily pick-up, etc.). After use, silt fences should be removed or otherwise prevented from becoming a pollutant source for storm water discharges.
- 17) Clearing, grubbing and other disturbance to the riparian vegetation shall be kept at the minimum necessary for slope construction and equipment operations. Unnecessary riparian vegetation removal, including trees, is prohibited.
- 18) Pre-construction vegetative ground cover shall not be destroyed, removed or disturbed more than 10 calendar days prior to grading or earth moving unless the area is seeded and/or mulched or other temporary cover is installed.
- 19) Stabilization measures shall be initiated within seven days after the construction activity has temporarily or permanently ceased.

- 20) Temporary or permanent soil stabilization shall be accomplished within 15 days after final grading or other earth work. Permanent stabilization with perennial vegetation (using native herbaceous and woody plants where practicable) or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable.
- 21) Muddy water to be pumped from excavation and work areas shall be held in settling basins or filtered prior to its discharge into surface waters. Settling basins shall not be located closer than 20 feet from the top bank of the stream and water shall be discharged through a pipe, well grassed or lined channel or other equivalent means so that the discharge does not cause erosion and sedimentation.
- 22) Maintenance, repair and rehabilitation of existing utility lines in wetlands is authorized provided that all of the following special provisions are met:
  - (a) the total amount of excavation or fill does not exceed 50 cubic yards;
  - (b) the wetlands alteration is located within the right of way of the existing utility line; and
  - (c) fill activities for the construction of equipment access roads is not authorized in wetlands.
- 23) The activity may not be conducted in a manner that would permanently disrupt the movement of fish and aquatic life.
- 24) Checkdams shall be utilized where runoff is concentrated. Clean rock, log, sandbag or straw bale checkdams shall be properly constructed to detain runoff and trap sediment. Checkdams or other erosion control devices are not to be constructed in stream. Clean rock can be of various type and size, depending on the application. Clean rock shall not contain fines, soils or other wastes or contaminants.
- 25) Stream beds shall not be used as transportation routes for construction equipment. Temporary stream crossings shall be limited to one point in the construction area and erosion control measures shall be utilized where stream banks are disturbed. Stream crossings should be constructed of clean rock and stream flow should be conveyed in appropriately sized pipe. The crossing shall be constructed so that stream flow is not obstructed. Following construction, all materials used for the temporary crossing shall be removed and disturbed stream banks shall be restored and stabilized if needed.
- 26) Materials used in utility crossing projects shall be free of contaminants, including toxic pollutants, hazardous substances, waste metal, construction debris and other wastes as defined by T.C.A. 69-3-103(18).
- 27) Material may not be placed in a location or manner so as to impair surface water flow into or out of any wetland area.
- 28) Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the state. All spills shall be reported to the appropriate emergency management agency and to the division. In the event of a spill, measures shall be taken immediately to prevent pollution of waters of the state, including groundwater.
- 29) This general permit does not authorize impacts to cultural, historical or archaeological features or sites.
- 30) Upon completion of the project, the stream and banks shall be returned to as close to pre-project conditions as is practicable, using clean rock, grass mats and other suitable materials.
- 31) The division will establish an expiration date for coverage under this general permit that is specific to the authorization and separate from the general permit expiration date.

APPROVED:

  
Paul E. Davis, Director, Water Pollution Control

DATE: 6-30-05

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