APPENDIX B

PROJECT DESCRIPTION

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Section 3. Description of Project, Project Primary and Secondary Purposes, Intended Use, and Alternatives Considered.

The objectives of the project include improving water quality and the local habitat of the Roanoke River by installing a new below-grade sewer line (interceptor) crossing and eliminating the concrete dam that encases the existing Roanoke River interceptor. The removal of the dam will improve water quality by removing the current impediment to the migration and passage of a number of fish and other aquatic organisms. The installation of the new sewer crossing will support continued sewer service to the nearby communities and will also improve water quality by reducing the potential for wet-weather sanitary sewer overflows by providing additional flow conveyance capacity.

The project referenced in this permit application consists of two parts. The initial component of the project is the installation of the new below-grade sewer line that will cross the Roanoke River in the area directly downstream of the dam. The new line will connect with the existing interceptor a short distance on both sides of the river. Approximately 300 feet of a 24" and a 36" pipe will be laid side by side parallel to the dam. The two lines will convey varying volumes of flow based on the volume in the upstream interceptor. The installation will be performed by constructing coffer dams in a manner that no more than half the width of the waterway will be obstructed at any time, using the existing low water dam as the upstream wall, where possible. A trench will be excavated, the two pipes will be installed, and the pipes will be encased in concrete. The excavated material will be returned to the trench; any excess material will be disposed of off-site. The process will be repeated for the second half of the channel.

Once the new sewer line is installed, the second part of the project will proceed. This involves the demolition and disposal of ~255 linear feet of 42-inch sewer line and casement impounding the Roanoke River. Encased in concrete, this river crossing creates a low dam that backs up the river for a significant distance upstream. Several conservation groups, along with the U.S. Fish and Wildlife Service have requested that the existing dam be removed. This would allow recreation in the area to be unencumbered by the dam, and allow one or more endangered species a more hospitable environment. This part of the project may help to restore anadromous fish passage and habitat for the federally-listed Roanoke Logperch. Between 6 and 10 linear feet of river channel currently covered in concrete shall be restored to natural stream bed. The channel upstream and downstream of the demolished structure will remain undisturbed and the associated bottom will be allowed to adjust form without intervention. The dam demolition will be coordinated by the United States Fish and Wildlife Service.

The potential impacts to surface waters during construction are believed to be minimal and temporary. These include a short-term increase in sedimentation resulting from the

disturbance and reconstruction of the river bed in the activity area. The degree of any impacts during the construction and demolition activities will be minimized by the use of coffer dams, turbidity curtains, flow diversion, and through the implementation of an Erosion and Sediment Control Plan. Once construction is completed, long-term improvements to the Roanoke River water quality and the environment are expected.

The work on this project is planned to begin as early as October 2008 and be completed by February 2009. If unforeseen conditions such as inclement weather, high river flows, or contractor delays push construction start to later than January 2009, the date for project commencement may be delayed as late as Summer 2009 to accommodate the critical spawning period for the Roanoke Logperch of March 15th through June 30th.

See the attached drawing.

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