



Water Infrastructure
ENVIRONMENTAL QUALITY

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MEMORANDUM

To: Crystal Best
State Environmental Review Clearinghouse
Department of Administration

From: Seth Robertson, P.E. *SR*

Date: February 12, 2016

Subject: Amendment to FONSI for City of Brevard's Neely Road Pump Station and Equalization Improvements
CWSRF Project No. CS370476-08
SCH File # 15-E-4300-0669

The purpose of this memorandum is to amend the Finding of No Significant Impact/Environmental Assessment (FONSI/EA) for the City of Brevard's Neely Road Pump Station and Equalization Basin Improvements Project (State Clearinghouse Number 15-E-4300-0669). As the Lead Agency, the Division of Water Infrastructure requests that the State Environmental Review Clearinghouse post this document for 30 days as an informational update for interested parties. Information regarding the proposed amendment to the FONSI/EA is discussed below.

The original FONSI/EA contained the following scope of work: (1) abandon the existing 2,900 gallons per minute (gpm) Neely Road Pump Station and construct a new 4,760 gpm pump station adjacent to the existing pump station, (2) construct 13,500 linear feet of new 20-inch forcemain to convey flows from the new pump station to the City's Wastewater Treatment Plant (WWTP), and (3) construct a 4.5 million gallon (MG) equalization tank at the WWTP.

The proposed amendment makes two key changes. First, for construction of the forcemain, the French Broad River crossing is changing from horizontal directional drilling to an open-cut crossing using cofferdams. Second, the equalization tank size is decreasing from 4.5 MG to 3.2 MG. Each of these changes is discussed in more detail below.

French Broad River Crossing

When the Engineering Report/Environmental Information Document (ER/EID) was submitted, it proposed crossing the French Broad River for the forcemain using directional drill technology to minimize impacts to the river. During final design, geotechnical investigations indicated that the area of the crossing contains extremely high compressive strength rock as well as fractured rock. As a result, constructing the crossing with trenchless



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technology was determined to be both technically challenging and cost-prohibitive. A free-span aerial crossing was considered as an alternative to avoid impacts to the river, but this alternative would pose maintenance problems for the City and safety hazards for the public. With these alternatives deemed infeasible, the City determined that open-cut is the best alternative.

The City proposes to use a Porta-dam type cofferdam system to install the proposed pipe in two phases, with each phase isolating up to 60-percent of the river width at a time. The river flow will be diverted to the remaining 40-percent of the river. After construction and restoration of the first section, flow will be diverted to that section to allow for construction of the second section.

The location of the crossing is in the same environmental footprint as the original design, but the impacts will change. The French Broad River downstream of the proposed project site is known habitat for the endangered Appalachian elktoe. The City has consulted with the U.S. Fish and Wildlife Service (USFWS), the US Army Corps of Engineers (USACE), and the NC Wildlife Resources Commission to identify measures to minimize and mitigate potential impacts to this species.

The cofferdam system will allow work to be performed in-the-dry to minimize sedimentation. An Erosion and Sediment Control Plan and Stormwater NPDES Permit have been submitted to the state. Silt fence and check dams will be used along the pipeline corridor. After construction, disturbed areas will be reseeded and bank contours will be re-established and revegetated using silky dogwood and tag alder with coir matting for stabilization. The City will also mitigate potential impacts to the Appalachian elktoe by a financial contribution to the University of North Carolina – Asheville's freshwater mussel propagation program to further efforts for recolonization of the Appalachian elktoe in the French Broad River.

As requested by the North Carolina Division of Parks and Recreation, the City will place signage at five public canoe launch points upstream of the construction to warn paddlers of the construction activities and will notify user groups of the French Broad River Trail through Riverlink and Mountain True organizations.

Equalization Tank Size

The June 2014 Wastewater Collection System Improvements Plan recommended a 3.2 MG storage tank to capture the 2-year design storm. The draft and final ER/EID proposed a 4.5 MG equalization tank to meet this criteria and include additional capacity for operational flexibility. During final design, the City determined that the benefit of a larger tank was not enough to justify the increased cost and larger environmental footprint, so the City decided to change to tank size to 3.2 MG, consistent with the original design criteria. The smaller tank will be in the same location originally proposed for the larger tank, but the environmental footprint will be smaller in diameter. As a result, there will be less disturbed area and less fill required in wetlands resulting in less environmental impact than the original design.

Conclusion

The project overall is likely to benefit aquatic species in and downstream of the project area by reducing sanitary sewer overflows into area streams. The review process indicated that with the mitigation measures in place to protect sensitive species, significant adverse environmental impacts should not occur and an environmental impact statement will not be required.

