

Finding of No Significant Impact

Water and Wastewater Utility Upgrade
U.S. Army Garrison Fort Belvoir
Directorate of Public Works
Fort Belvoir, Virginia

Name of Action: Water and Wastewater Utility Upgrade

Description of Proposed Action: The United States Army Garrison Fort Belvoir (Fort Belvoir) proposes to implement a number of projects to upgrade its water and wastewater system infrastructure through a utilities privatization contract. These projects include replacement of water storage tanks, replacement of force mains, maintenance of gravity sewer mains, reinstallation of aerial stream crossings with streambank repair, and implementation of additional projects identified in Fort Belvoir's 2012 Annual System Deficiency Corrections, Upgrades and Renewal & Replacement Plan for Fiscal Years 2013 through 2017.

The Environmental Assessment (EA) analyzed and documented the environmental impacts associated with the Proposed Action Alternative to upgrade outdated components of the installation's water and wastewater infrastructure. The Proposed Action would provide the required level of operability for the water and wastewater systems necessary to support Fort Belvoir in accomplishing its mission to provide reliable and compliant water and wastewater service to its water system users. Consideration was given to one additional alternative for replacement of the water storage tanks; however, analyses determined that a two-tank alternative, compared to a three-tank alternative, would have negative impacts on the water distribution system and would not be able to support Fort Belvoir's mission. A No Action Alternative was also considered but would not satisfy Fort Belvoir's mission to provide reliable and compliant water and wastewater services to its users.

Environmental Consequences: The EA identified and evaluated the potential impacts of the Proposed Action and No Action alternatives on land use; air quality; noise; geology, topography, and soils; water resources; biological resources; cultural resources; socioeconomic resources; traffic and transportation; utilities and infrastructure; and hazardous materials and waste.

There are no anticipated significant impacts that would require preparation of an environmental impact statement (EIS), best management practices (BMPs) would be employed, where appropriate, to reduce or minimize impacts. Any necessary mitigation for work that potentially impacts wetlands will be determined through the Joint Permit Application process.

Natural Resources: Grading, leveling, and excavation of soil would have the potential for increased sediment to be carried into the nearby streams. Removal of woody vegetation in maintenance right-of-ways (ROWs) could diminish soil productivity and increase potential for soil erosion; however, ROW routes would be sited to minimize tree removal. Implementation of soil erosion and sediment control (ESC) plans would ensure impacts to soils are temporary and minor. The ESC plans would be developed, approved, and permitted, and would involve BMPs, such as silt fencing, control matting, and storm drain outlet protection implemented throughout the construction of the project and maintained and not removed until the sites have been stabilized. Streambank repair and stabilization efforts would have long-term, beneficial impacts to soils as a result of stabilizing the soil structure and decreasing erosion potential.

Construction activities would result in minor, temporary impacts to surface water from the potential for sediment and construction contaminants to be carried into the nearby waterbodies. Use of directional

drilling technology, and plans for stormwater pollution prevention and ESC would minimize impacts to surface water. Streambank repair for the aerial stream crossings projects would result in short term adverse impacts to streams from the disturbance or relocation of the stream beds and long-term beneficial impacts from reduced likelihood of erosion. The Proposed Action Alternative would eliminate or substantially lower the probability of a sewer main break above streams that could result in Sanitary Sewer Overflows (SSO). Construction would result in short-term impacts to floodplains associated with three of the force main projects, and several of the aerial stream projects. Impacts to groundwater would be unlikely as the location and depth of groundwater would be taken into consideration during design to avoid groundwater impacts.

The Proposed Action would result in temporary and permanent impacts to wetlands and Resource Protection Areas (RPAs) from the aerial stream crossing projects and its associated streambank repairs and to forested wetlands in the area of the new access to Lift Station 584, the Meade Road water main replacement, and the Woodlawn Village water and sewer improvements project. Impacts to wetlands would be minimized by use of horizontal directional drill technology to the greatest extent practicable. Impacts to wetlands and RPAs would likely be below the thresholds for which mitigation is required. Potential impacts to wetlands and the RPAs would be reviewed through the Joint Permit Application process in order to conduct work in wetlands and RPAs.

The Proposed Action would result in minor impacts to vegetation and wildlife and wildlife habitat. Vegetation in the footprint of open trenches, bore pits, maintenance ROWs (wood vegetation only), and areas of streambank repair would be removed. Beneficial impacts as a result of force main replacements would occur to vegetation, wildlife habitat, and aquatic species as the probability of a sewer main break above streams that would result in SSOs would be eliminated or lowered. Time-of-year restrictions on in-stream work would be adhered to. Construction activities would likely temporarily displace wildlife and result in the removal of forested habitat. Cleared forested areas would be seeded with native seed mixes. Tree protection methods would be implemented to protect trees not proposed to be removed during construction activities. No impacts to threatened and endangered species are expected. Seasonal restriction would be adhered to on construction activities in vicinity of active bald eagle nests.

Air Quality: Air pollutant emissions from the Proposed Action would not be significant and would be below *de minimis levels* for general conformity. Fugitive dust would be minimized during construction by control methods outlined in 9 Virginia Administrative Code 5-130 et seq. of the Regulations for the Control and Abatement of Air Pollution. These precautions could include methods, such as using water for dust control, covering open equipment for conveying materials, and promptly removing spilled or tracked dirt or other materials from paved streets or dried sediments resulting from soil erosion.

Coastal Zone Management: The Proposed Action would be consistent with enforceable policies of the Virginia Coastal Zone Management Program.

Cultural Resources: The Proposed Action would result in adverse impacts to the historic viewshed of the Fort Belvoir Historic District and to the district itself, as a result of the loss of water storage tank 188. Impacts, however, would not be significant as adverse impacts would be minimized and mitigated through measures as agreed upon in a Memorandum of Agreement between the U.S. Army and the Virginia Department of Historic Resources.

Impacts to National Register of Historic Places-listed sites and formally unevaluated sites from the replacement of force main would be avoided by horizontal drilling underneath the site, rerouting the pipes, relining the existing pipe in situ, or by other means. Measures to avoid or mitigate any impact would be developed through Section 106 consultation with the Virginia Department of Historic Resources to protect archaeological resources.

Infrastructure and Utilities: The Proposed Action would have long-term, beneficial impacts to Fort Belvoir's water and wastewater utility system as a result of improved reliability and capacity of water storage tanks, replacement of aging sanitary sewer mains, construction of permanent access for sewer main maintenance, protection of water and sewer lines from erosion, and proper preventative maintenance of aging infrastructure elements.

Minimal impacts to noise, geography and topography, land use, socioeconomics including community facilities and services, environmental justice, hazardous materials and wastes, and traffic and transportation as a result of the Proposed Action.

Summary of Environmental Impacts: The Proposed Action would not generate significant impacts on human health or the environment. No significant cumulative impacts or indirect impacts are anticipated.

Conclusion: On reviewing the EA and other project information, the Garrison Commander of Fort Belvoir has concluded that the Proposed Action would not have a significant effect on the human environment. Therefore, an Environmental Impact Statement is not needed.

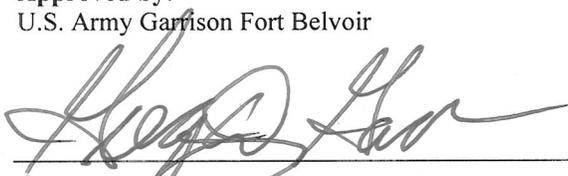
Notice of availability: The EA was available for public review at the Directorate of Public Works, Fort Belvoir, Virginia; the Fort Belvoir Van Noy Library; the Fairfax County Library - Kingstowne Branch, Lorton Branch, and the Sherwood Regional Branch; and on the installation's web site at: <http://www.belvoir.army.mil/envirodocssection2.asp>

Newspaper notices of the availability of the EA were published in the Mount Vernon Voice, the Gazette, and the Springfield Connection newspapers.

Response to Comments: Comments from federal, state, and local agencies were received during the public review period and addressed by Fort Belvoir. For more information, contact Mr. Patrick McLaughlin, Chief of Environmental and Natural Resources Division, at 703-806-4007.

Approved by:
U.S. Army Garrison Fort Belvoir

Date:



Gregory D. Gadson
Colonel, U.S. Army
Commanding