

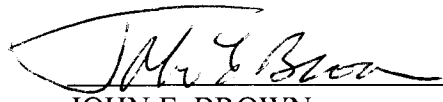
**Supplemental Environmental Assessment and Draft Finding of No Significant Impact for the  
Privatization of the Water Treatment and Distribution System  
and the Wastewater Collection and Treatment System,  
Fort Benning, Georgia**

PREPARED BY:

  
MELISSA B. KENDRICK  
NEPA Coordinator


Date: 16 June 2004

REVIEWED BY:

  
JOHN E. BROWN  
NEPA Program Manager

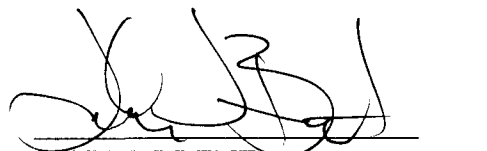
Date: 16 JUN 04

SUBMITTED BY:

  
PATRICK R. CHAUVEY  
Chief, Environmental Programs  
Management Branch

Date: 06/16/04

RECOMMENDED BY:

  
JOHN J. BRENT  
Chief, Environmental Management  
Division

Date: 6/16/04

APPROVED BY:

  
CRAIG TAYLOR  
Deputy Director of Public Works

Date: 6-22-04

## 1.0 PURPOSE AND NEED

Defense Reform Initiative Directive (DRID) #49 directs all Military Departments to privatize their utility systems (electric, water, wastewater and natural gas), except those needed for unique security reasons or when privatization is uneconomical. Privatization is defined as the transfer of ownership, responsibilities, investments, upgrades, plant replacement, and continued operation and maintenance to the non-Federal sector. Fort Benning has already privatized its electrical and natural gas distribution systems; privatization of the water distribution and wastewater collection systems would therefore complete Fort Benning's requirements per DRID #49.

In 2002, an Environmental Assessment (EA) and Finding of No Significant Impact (FNSI) for the privatization of the Fort Benning water and wastewater collection and treatment systems (W/WW systems) were completed. No alternative was selected as "preferred" as a result of the EA and FNSI; however, the document presented a thorough and comprehensive picture of the privatization process and the potential impacts to the natural and human environment. The EA analyzed the "No Action/Status Quo" alternative plus two action alternatives: one involving the new W/WW system owner's long-term utilization of on-Post facilities and one involving the new W/WW systems owner's short-term usage (approximately 18-24 months) of on-Post facilities while connection routes tying the new owner's system into the on-Post systems were constructed. The EA proposed separate connection routes for the W/WW systems, beginning at each system and leading off-Post, based on best available knowledge from the Directorate of Public Works (DPW) personnel. No comments on this EA and FNSI were received from the public and it was determined that neither of the proposed alternatives would result in potentially significant environmental impacts if proper mitigation and monitoring efforts were followed.

Recently, a different route has been proposed for the connection of potential off-Post systems to the W/WW systems on Fort Benning. For the purposes of this document, this proposed action will be referred to as "Revised Alternative III," since it consists of the connection to an off-Post system, but with a differing route of connection than the one analyzed in the 2002 EA and FNSI. Fort Benning is preparing a Supplemental Environmental Assessment (SEA) to identify and evaluate the environmental effects of the newly proposed connection route between the new owner and the Fort Benning W/WW systems, which consists of approximately 30,000 linear feet of water connection lines and approximately 41,000 linear feet of wastewater connection lines. While this connection is in progress, the new owner will operate and maintain the existing Fort Benning W/WW systems. After the completion of this line emplacement (and its associated construction activities), the use and maintenance of the existing Fort Benning W/WW systems will cease, the new W/WW lines will be activated, and the collection and treatment of water and wastewater will occur at the new owner's off-Post facilities; at that time, the existing Fort Benning W/WW systems will be demolished.

This SEA is prepared in accordance with the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulations, and 32 Code of Federal Regulations 651 (Army Regulation 200-2). This document consists of an objective appraisal of the potential effects, both negative and positive, of the proposed action and its alternatives on the natural and human environment, as well as an appraisal of the cumulative effects of said actions in a

specifically defined region of influence. It also contains discussions of mitigation, monitoring, permit requirements, and findings and conclusions in accordance with NEPA guidelines.

## 2.0 DESCRIPTION OF THE PROPOSED ACTION

### 2.1 LOCATION OF THE PROPOSED ACTION

Fort Benning is located near Columbus, Georgia, 100 miles south/southwest of Atlanta, Georgia (see Figure 1). The Installation occupies land in Muscogee and Chattahoochee counties, Georgia, and Russell County, Alabama, and can be accessed by the following major highway routes: Interstate 185, US Route 27/Georgia Highway 520, Georgia Highway 26, and Alabama Highway 165. The City of Columbus, Georgia, borders the Installation along its north and northwest boundary. Other major urban areas within a 100-mile radius include Albany and Macon, Georgia, and Phenix City, Montgomery, and Dothan, Alabama. Fort Benning occupies approximately 181,400 acres of land, of which approximately 169,262 acres are located in Georgia and 12,138 acres are located in Alabama. The Installation covers approximately 80 percent of the land in Chattahoochee County, Georgia, as well as small portions of Muscogee County, Georgia, and Russell County, Alabama.



Figure 1. Location Map

## 2.2 PROPOSED ACTION

### **Revised Alternative III: “Transfer the existing water and wastewater systems on Fort Benning to a non-Federal provider that would utilize off-Post treatment plants.”**

This alternative would involve the transfer of the W/WW systems’ equipment and infrastructure to a non-Federal utility provider (hereafter, “new owner”); however, under this option, the new owner would utilize off-post treatment plants. This would include furnishing potable water to the Installation from a permitted off-post water treatment plant, and conveying wastewater from Fort Benning to an off-post treatment plant. The new owner would be required to adhere to all applicable Federal, state, local laws and regulations, and US Army regulations, in regards to operating and maintaining the utility systems in order to provide dependable service to Fort Benning.

No land would be transferred to the new owner. The new owner would be granted easements, where the facilities are located, for maintenance and replacement activities. Connection lines between the off-Post facilities (new owner) and the existing Fort Benning facilities will need to be constructed. The connection lines (to be constructed) will consist of approximately 30,000 linear feet for the water collection and treatment system and approximately 41,000 linear feet for the wastewater collection and treatment system. Both pipelines would consist of Polyvinyl Chloride (PVC) Pipe, High Density Polyethylene (HDPE) Pipe, or Ductile Iron Pipe, varying in diameter from 24 to 36 inches, and will be placed at a depth of approximately six feet. The water and wastewater connection lines will be placed in separate trenches, following separate routes (Figure 2) and will, for the most part, follow existing roadways. The construction of the wastewater connection line will involve the crossing of Upatoi Creek; in addition, the construction of the water connection will involve the crossing of Tiger Creek. Although no detailed design proposal for the connection lines has been developed at this time, construction would be reviewed at the varying design phases (concept, preliminary, and final) by the Fort Benning Environmental Management Division (EMD) and would be consistent with the following:

- During detailed design several options for crossing Upatoi Creek along the proposed interconnection alignment will be considered. These options will be: Attachment to the existing steel girder bridge; installation of new piers to support an aerial pipe crossing above the bottom flange of the bridge’s steel girders; and pipe installation below the creek channel bottom. Some factors that will drive selection of the optimum option are hydraulic performance that will affect life cycle operations and maintenance; sustainability of infrastructure integrity (i.e. minimal risk of failure); ability to control erosion and sedimentation; and estimated cost of installation (Davis, 2003).
- A secondary water main interconnection is proposed along St. Mary’s Road, which will cross over Tiger Creek (Figure 3, standard creek crossing design, to be modified per the project parameters at a later date). The water main crossing will be within the existing roadbed structure and is proposed to cross over existing culvert (Davis, 2003).
- In addition to the lines proposed for the water and wastewater interconnection routes, necessary appurtenances such as valves, manholes, clean-out stations, metering stations, booster pump stations, and fire hydrants, will be included. The proposed right-of-way for

this action (to be established via an easement) is anticipated to extend 7.5 feet beyond the physical limits of such appurtenances (Davis, 2003).

- The proposed easement also allows for a potential future larger lift station, off Fort Benning property, which would allow for the elimination of WWTP #1 and the larger lift station (lift station #5) on the north side of Upatoi Creek (which pumps to WWTP #1). Detailed engineering analysis will determine the feasibility of this future lift station and when the most cost-effective life cycle timing occurs for installation (Davis, 2003).

To facilitate the construction and emplacement of these connection lines, a Corps of Engineers (COE) license will be executed for the construction, to include contractor staging areas (work sites); Figure 2 also indicates (in green) the most probable locations for these staging area(s). The new W/WW system owner will coordinate with the Fort Benning Real Property Master Planning Division and the EMD for this license. This licensing and review action will occur after the completion of this SEA, due to the fact that the lines have not yet reached the final design level. In order to plan and execute the W/WW systems tie in from off-post, a start up lag time of approximately 18-24 months is expected. During this lag time, the new owner would operate and maintain the on-post (existing) W/WW systems in order to provide the Installation with water and wastewater services. During construction a narrow strip of land adjacent to the trenches will also be necessary for unloading pipe, equipment access, and for the temporary trench side cast material (Davis, 2003). Subsequent to the completion of the construction related to the connection lines and when the new lines are fully operational, the existing Fort Benning W/WW facilities would be officially transferred to the new owner and demolition of the facilities would proceed.

### **3.0 AFFECTED ENVIRONMENT**

The majority of the affected environment, both the natural and the cultural components, have not changed since the completion of the 2002 EA and FNSI and may be reviewed in the “Environmental Assessment of the Privatization of the Water Treatment and Distribution System and the Wastewater Collection and Treatment System, Fort Benning, Georgia,” which is on file at the offices of the DPW and in the Fort Benning and Columbus libraries; however, changes have occurred in the following programs, which are presented in their updated status below.

#### **3.1 SPECIES OF CONSERVATION CONCERN**

The Red-Cockaded Woodpecker (RCW) was placed on the Federal list of endangered species in 1970. Fort Benning has one of the largest RCW populations in the southeastern United States. The RCWs are well dispersed over the entire installation, with the exception of the Installation property in Alabama. On September 27, 2002, the USFWS approved Fort Benning’s Endangered Species Management Plan (ESMP) for the RCW and issued a Biological Opinion (BO) that included specific management activities and allowed the implementation of the “1996 Management Guidelines for the RCW on Army Installations.” Presently, Fort Benning has a total of 311 manageable RCW clusters (251 active and 60 inactive, as of 2003). The proposed WW connection route will pass alongside the road by one cluster, located on Dixie Road and leading toward WWTP #2 (Figure 2), but will not require tree clearing or other disturbance of habitat.

### 3.2 Air Quality

In 2000, Governor Roy Barnes submitted a letter to the US EPA Region 4 stating that Muscogee County (which includes portions of Fort Benning) was no longer in attainment for ground level ozone; however, the EPA did not take action on that recommendation. Georgia sent a subsequent letter in 2003 recommending other areas for non-attainment status with regards to ozone, but, due to improvements in the Fort Benning-Muscogee County air quality levels, Georgia did not recommend the Fort Benning-Muscogee County area for non-attainment designation. EPA responded in 2003 and did not include the Fort Benning-Muscogee County area in the list of those designated for ozone non-attainment.

Fort Benning is currently in attainment for the six criteria pollutants in Muscogee and Chattahoochee counties, but the section of Fort Benning contained within Russell County, AL, has been recommended for designation as non-attainment for particulate matter 2.5 micrograms in diameter or greater in size (PM<sub>2.5</sub>). If the Fort Benning area were designated as non-attainment, then Army actions would undergo a general conformity determination. Re-evaluations of attainment status, recommendations, and calculations to compare to air quality standards in Russell County for PM 2.5 are currently underway by the Alabama Department of Environmental Management (ADEM). Specifically, ADEM is utilizing their Smoke Management Program (SMP) and discounting the PM 2.5 amounts generated by prescribed burning and other burning for land management. In January 2004, Fort Benning submitted a letter to ADEM requesting an exemption to the Fort Benning section of Russell County for the non-attainment status; however, ADEM did not exclude Fort Benning and the exemption was not granted. Fort Benning is currently working with GA DNR to establish a Smoke Management Program (SMP), per EPA guidelines, "US EPA Interim Air Quality Policy on Wildland and Prescribed Fires," (23 April 1998), because much of the PM 2.5 in the area seems to come from wildfires and fires utilized for land management purposes. If the SMP is certified by the state then according to the Policy, PM 2.5 emissions from prescribed burns should not count towards non-attainment. A state-certified SMP may avoid a future PM 2.5 non-attainment designation in the Fort Benning area. In 2002, Fort Benning EMD and Staff Judge Advocate personnel met with the GA EPD Air Protection Branch to challenge the 40% opacity limit for all outdoor burning, which includes prescribed burning. In spring 2003, this rule was changed to exempt Fort Benning's prescribed burning program as a source of emissions.

The Muscogee County area also hosts two PM 2.5 monitors. Recent monitoring shows that the Muscogee County area is in attainment for PM 2.5. Fort Benning also conducts an annual Air Emission Inventory of stationary air emissions sources and uses this information to update its Title V Permit. The Title V Permit application was submitted for review in 1996, as per the request of GA EPD Air Permitting Section, and issued by the state on 16 July 2003. The permit will be renewed five years from the issue date.

## **4.0 ENVIRONMENTAL CONSEQUENCES**

The analysis in this section is for the implementation of the Revised Alternative III, as discussed in Section 2.0. If the new owner uses routes other than those evaluated in this SEA, or if any other significant changes in scope of work occur, additional NEPA analysis will be required.

During preliminary analysis it was determined that the implementation of the Revised Alternative III would have no potential effect, either adverse or positive, on the following media: migratory birds, fisheries, wildlife, environmental justice, solid waste, hazardous and toxic materials and waste, pesticides and herbicides, unexploded ordnance, radon, radioactive substances, protection of children, Pollution Prevention, and Sustainable Design and Development. Therefore, these areas/issues will not be examined in detail.

### **4.1 NATURAL ENVIRONMENT**

#### **4.1.1 Soils**

The threshold level of significance for soils is any ground disturbance or other activities that would result in illegal discharges and violate applicable Federal or state laws and regulations, such as the Georgia Erosion and Sedimentation Control Act (ESCA), and the potential for Notices of Violation (NOV) for the failure to receive applicable state permits, such as a National Pollutant Discharge Elimination System (NPDES) construction permit under the ESCA, prior to initiating a proposed action.

As a result of this action, soil disturbance will be confined to the Right-of-Way (ROW) established by the easement granted to the new owner, resulting in temporary minor adverse potential effects on soils as a result of construction activities required to bring potable water onto Fort Benning and take raw sewage off the Installation for treatment at non-Federal facilities. The new owner would be responsible for the preparation of an erosion, sedimentation, and pollution control plan (ESPCP), which is part of the NPDES permit required by the Georgia Environmental Protection Division (EPD). A copy of the ESPCP must be coordinated through the EMD prior to submittal to the EPD. The new owner would also be required to prepare and implement a Spill Prevention, Control and Countermeasure (SPCC) Plan for construction activities. The SPCC will delineate measurements and practices that will be implemented to prevent and/or minimize spill/release from hazardous materials onto ground surfaces. Several of the facilities that will be part of the privatization process are covered under the Fort Benning Integrated Contingency Plan (ICP) and would require implementation of SPCC measurements. Any new facility to be constructed would be required to meet SPCC regulation at the installation level. These measurements will ensure the protection of soil resources. Overall, this action would result in potential temporary, minor adverse effects to soils.

Adherence to the ESPCP, NPDES permit, and SPCC is required and will include measures to minimize impacts to soils and vegetation. During construction, the NPDES permit would require daily, weekly, and monthly inspections and reports, as well as the monitoring of turbidity (sediments) in adjacent surface water bodies. No additional mitigation is required.

#### **4.1.2 Vegetation**

The threshold level of significance for vegetation is loss of vegetation at a level that would substantially reduce the occurrence of a plant species or degrade the habitat of a dependent animal species at a population level on the Installation. Vegetation discussed below refers both to under-story or ground cover, such as grasses, and over-story cover, such as mature pines and hardwoods.

Currently, utility lines and structures are kept free of intrusive (roots) vegetation by various means (mowing, application of herbicides and pesticides, etc.). Construction of the connection lines would result in minor adverse effects on vegetation, due to tree and brush clearing for trenching and emplacement of the new water main and sewer lines required to bring potable water on the Installation and take raw sewage off the Installation for treatment. Most vegetation loss would occur in the cantonment area where the water and wastewater system infrastructure are located. Once operational, the new owner would maintain the ROW for the system. The use of pesticides, herbicides, fungicides, or any other chemicals by contractors or other non-government personnel on Fort Benning for maintenance of ROWs is not currently permitted; however, if this is needed in the future for this ROW, in lieu of manual vegetative control measures, it must be coordinated through the Pest Management Program of the EMD prior to implementation. Minimization of the minor adverse effects would be as discussed in Soils, above, and in accordance with the ESPCP and NPDES Permit. No additional mitigation is proposed.

#### **4.1.3 Water Quality**

The threshold level of significance for water quality is the violation of applicable Federal or state laws and regulations, such as the Clean Water Act and the Georgia Water Quality Control Act, and the potential for NOV for the failure to receive applicable Federal and state permits, such as a NPDES permit, prior to initiating a proposed action. This also includes not following management practices for “impaired streams,” as defined under Georgia’s 303(d) List, for Total Maximum Daily Loads (TMDLs).

There would be temporary minor adverse effects on surface waters during construction, specifically, at the location of the two stream crossings for the new water main and sewage line. Stream or river crossings would require the new owner to coordinate with the US Army Corps of Engineers (USACE). The new owner would be responsible for obtaining the NPDES construction permit for storm water discharges associated with construction activities, which will include the preparation of an ESPCP and SPCC Plan, as discussed in the Soils section of this document.

As part of the NPDES Permit BMPs and Fort Benning requirements, the new owner will delineate measurements and practices to be implemented for the prevention of spills/releases of hazardous materials into waterways (including storm drainages along access roads and/or near project areas), to protect water quality. Waterways that could be impacted from this proposal include: tributaries to and/or Upatoi Creek (work along 10<sup>th</sup> Division Road, Benning Boulevard, Lumpkin Road, Engineer Road, Santa Fe Road, Custer Road, and Marne Road; and at the two proposed major water crossing), Laundry Creek (work along Edwards Street), tributaries of the



Chattahoochee River (work along Dixie Road), and Tiger Creek (work along Moye Road). No additional mitigation is proposed.

#### **4.1.4 Wetlands**

The threshold level of significance for wetlands is a change from one wetland type or function to another.

This action would not result in a change from one wetland type to another; however, construction would have a temporary minor adverse effect on jurisdictional wetlands, specifically, where the water connection line will cross Tiger Creek and where the wastewater connection line will cross Upatoi Creek. Based on concept-plan information available at the time of this SEA and geographical imaging system (GIS) mapping techniques, the exact amount of wetlands to be disturbed by the construction of the water and wastewater connection lines cannot be definitively stated; however, preliminary analysis indicates that disturbance to wetlands would be minimal. The new owner is responsible for delineating any jurisdictional wetlands in the construction areas and obtaining any required wetland permits from the USACE and state agencies, such as a Section 404 permit and USACE coordination. A copy of these permits must be submitted to the EMD. No additional mitigation is proposed.

#### **4.1.5 Species of Conservation Concern**

The threshold level of significance for species of conservation concerns occurs if an alternative disrupts normal behavioral patterns or disturbs habitat at a level that substantially impedes the Installation's ability to either avoid jeopardy or conserve and recover the species.

There are no known Red-cockaded woodpeckers (RCWs) or any other Federally threatened or endangered species known to occur along the proposed connection lines (Swiderek, 2003); therefore, the proposed action would have no adverse effect on protected species. The new owner would be required to continue ongoing coordination of the construction plans with Fort Benning, due to the presence of suitable habitat for RCWs in the vicinity of the proposed action, specifically, along Lumpkin Road. If RCW habitat cannot be avoided, the new owner would be responsible for coordination through Fort Benning with the USFWS and state agencies to identify and implement appropriate avoidance and, if necessary, mitigation measures. Habitat disturbing activities should be limited to maintenance and upgrade activities within the ROWs for the water and wastewater systems. Any construction activities within and/or outside of established ROWs would require prior approval by the Installation and coordination with the Fort Benning EMD. No mitigation is proposed at this time.

#### **4.1.8 Air Quality**

The threshold level of significance for Air Quality is the emission of pollutants sufficient to result in a violation of applicable Federal or state laws and regulations, such as the Clean Air Act, and the potential for Notices of Violation (NOV) for the failure to receive applicable state permits (such as those required for construction projects) prior to initiating a proposed action or the failure to follow permit requirements.

Construction would have a temporary minor adverse effect on air quality due to fugitive dust emissions during construction. The new owner would be responsible for the use of any needed mitigation, such as tarp covers on the trucks transporting debris from the work site to off-Post landfills. No additional mitigation is proposed.

## **4.2 HUMAN ENVIRONMENT**

### **4.2.1 Cultural Resources**

The threshold level of significance for cultural resources is the violation of applicable Federal laws and regulations, such as the National Historic Preservation Act, the Archeological Resources Protection Act, and others.

Construction of the connection line between the Fort Benning W/WW systems and the new owner's systems would have no adverse effect on known cultural resources; however, the route of the wastewater connection line, as of this design level, will run adjacent to known cultural resources sites along South Lumpkin Road (Figure 4) and will therefore need ongoing coordination with the EMD as the design for this project develops. The new owner will be required to avoid these sites; if avoidance is unfeasible, then the new owner will be required to coordinate a new plan of action with the EMD. Fort Benning would then be responsible for subsequent coordination of the action with the State Historic Preservation Office (SHPO), Federally recognized Native American Tribes, and others to identify and implement appropriate action.

The transfer of buildings 244, 272, and 4290, to include any associated ancillary structures, from Federal (U.S. Army) protection to a private entity (the new owner) has been determined to be an adverse effect (see Appendix A for Fort Benning-SHPO correspondence). In addition, the subsequent demolition of these structures will result in an adverse effect, resulting overall in potential moderate adverse effects to cultural resources. To mitigate and minimize this adverse effect, Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) documentation will be required and will be prepared by Fort Benning and submitted to the SHPO prior to the transfer of the buildings to the new owner and, therefore, prior to the demolition of these buildings by the new owner. Overall, this will result in potential moderate adverse effects to cultural resources.

### **4.2.2 Socioeconomics**

The threshold level of significance for socioeconomics consists of a combination of several factors, to include unusual population growth or reduction, unusual increase/decrease in housing demands, substantial increase/decrease in demands on public services, and the potential to substantially increase/decrease employment opportunities.

Construction may result in temporary minor adverse effects on socioeconomics in the study area. Currently, the Department of the Army owns, maintains, and operates the W/WW systems at Fort Benning. At this time, contract employees operate and maintain these systems. Based on previous privatization and commercialization efforts, it is anticipated that most if not all of the

contract Federal employees would be offered jobs by the new owner. The action may also result in temporary minor positive effects on the local economy resulting from jobs related to the construction of the new wastewater/water lines. These jobs may or may not be granted to the local workforce, however, and due to the temporary nature of the construction, would not result in any significant effect on the local workforce. Overall, this action would result in no effect, as the temporary minor and temporary positive effects associated with the action would essentially cancel each other out. No mitigation is proposed.

#### 4.2.3 Utilities

The threshold level of significance for utilities is the potential to overload a given utility or energy system on the Installation that would result in an additional demand or discharge that cannot be accommodated.

Construction of the connection lines and the eventual operation of the water and wastewater systems would have a positive effect on utilities. The new owner would be required, by contract, to repair the systems to correct any faults and associated code violations and therefore alleviate the potential to overload the system. The end result would be water and wastewater systems that would provide dependable service and meet all the requirements of applicable laws and regulations. This alternative would have no effect on the electrical and natural gas distribution systems that have already been privatized. No mitigation is proposed.

#### Summary of Potential Environmental Consequences

RESOURCE	EFFECT	MITIGATION
Soils	Minor adverse effects	Adherence to ESPCP, NPDES Permit, and SPCC Plan required; no additional mitigation proposed.
Vegetation	Minor adverse effects	Adherence to ESPCP and NPDES Permit required; no additional mitigation proposed.
Water Quality	Minor adverse effects	Adherence to ESPCP, NPDES Permit, and SPCC Plan required; no additional mitigation proposed.
Wetlands	Minor adverse effects	Section 404 permit and USACE coordination; no additional mitigation proposed.
Species of Conservation Concern	No effect	None proposed.
Air Quality	Minor adverse effects	None proposed.

RESOURCE	EFFECT	MITIGATION
Cultural Resources	Moderate adverse effect	HABS/HAER Documentation and consultation with SHPO required.
Socioeconomics	No effect	None proposed.
Utilities	Positive effects	None proposed.

## 5.0 CUMULATIVE IMPACTS

The Council on Environmental Quality (CEQ) defines cumulative impacts as the “Impact on the environment which results from the incremental impact of the action(s) when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions” (CEQ, 1978). The actions proposed under the alternatives in this EA, in addition to proposed projects in the Columbus-Phenix City area, have the possibility to result in either negative or positive impacts in a cumulative manner. These projects all occur within a well-defined and specific geographical (spatial) region of influence (ROI), which is defined in the following subsection; in addition, the projects are also limited on a temporal basis, as well, since they all have the potential to be implemented within a 20-year period, as indicated by the planning documents obtained for the individual cities, and therefore may increase the potential for cumulative effects. These projects have not been listed in detail in this SEA; however, they may be reviewed in the Final Environmental Impact Statement for the Fort Benning Digital Multi-Purpose Range Complex, April 2004, which is on file at the offices of the EMD. Each media (such as air, water, etc.) may have a more specifically defined ROI that may potentially be affected by the proposed projects and is individually addressed in the following subsections.

The cumulative effects predicted for the Revised Alternative III and affected media are described below. During preliminary analysis, it was determined that the projects proposed in the Region of Influence (ROI) (the Fort Benning and the Columbus-Phenix City area) would result in no potential cumulative impacts to vegetation, migratory birds, protected species/wildlife, socioeconomics, air quality, environmental justice, land use, Pollution Prevention, Sustainable Design and Development, utilities, hazardous and toxic materials/wastes, radiation, UXO, public health and safety. This determination was the result of a preliminary analysis of each proposed action and their individual and cumulative potential to impact the natural and human environment, in either a direct or indirect manner; therefore, these media will not be discussed in any further detail. The threshold level of significance for each media below is the same as in Section 4, Environmental Consequences, and will not be restated below.

### 5.1 Soils

The ROI for soils consists of the five county area containing Fort Benning, Columbus, and Buena Vista, GA, and Phenix City, AL. Past, present, and future actions in the ROI, such as construction and road/trail maintenance, have the potential to contribute to soil disturbance and erosion and the loss of vegetative cover; however, adherence to applicable Federal, state, and local laws and regulations, such as erosion control BMPs and NPDES permits, would help

minimize soil erosion. Minor soil contamination could also occur as a result of these actions, due to potential spills and accidents during construction and maintenance activities; however, legally required mitigation measures, such as secondary containments and equipment inspections, would help minimize the threat of accidents and subsequent soil contamination. In particular, the construction of the barracks on Main Post, Sand Hill, and Kelley Hill and the construction of the Infantry Squad Battle Course (ISBC), Infantry Platoon Battle Course (IPBC), Digital Multi-Purpose Range Complex (DMPRC), and Digital Multi-Purpose Training Range (DMPTR) are the projects that have the potential for moderate adverse impacts due to disturbance to/removal of soils in the Fort Benning portion of the ROI; however, the rehabilitation of the Maneuver Corridors on the Installation have the potential for long-term positive effects due to the proposed erosion control and soil stabilization measures it will entail. Likewise, the construction of the Oxbow Meadows and Marina and the development of the North Tract in Columbus would be the only community projects that have the potential for moderate adverse impacts due to disturbance to/removal of soils and vegetation in the ROI.

Concurrent with the construction proposed for the W/WW connection lines, other projects, such as the construction of the force protection measures and barracks projects on Fort Benning and the development of the North Tract in Columbus, would be ongoing, resulting in potential minor adverse effects to soil and vegetation due to site clearing and construction activities. Potential minor adverse effects may also occur in the vicinity of Ruth, Cactus, and Carmouche ranges as the training queue is shifted to accommodate construction of the DMPTR at Hastings Range, which would remove it from the training queue. Construction of future projects, to include the DMPTR, ISBC and IPBC, would have the potential for moderate adverse impacts to soils as a result of more extensive cut-and-fill activities. Still, these would also be minimized through adherence to applicable Federal, state, and local laws and regulations. When funding becomes available, the rehabilitation efforts planned for the North/South Maneuver Corridors would have the potential for minor positive impacts in the ROI, due to the erosion control measures and soil stabilization efforts this would entail throughout the aforementioned training compartments. Although the maneuver corridor action would also involve selective thinning of trees throughout these training compartments, it would be minimal and would only occur along existing maneuver trails and not intrude further into the adjacent stands of trees than necessary to facilitate the maneuver of the tracked vehicles; therefore, no adverse effects are predicted as a result of this rehabilitation effort. Overall, this alternative would result in no potential for incremental impacts from ongoing activities and no cumulative adverse impacts to soils in the ROI.

## **5.2 Water Quality**

The ROI for water quality consists of the streams and other surface water bodies within the local watershed. Past, present, and foreseeable future actions in the ROI include construction and road/trail maintenance and have the potential to contribute to soil disturbance, erosion, and the loss of vegetative cover. In particular, the construction related to the privatization of the water/wastewater system and the construction of the ISBC, IPBC, DMPRC, and DMPTR are the projects that have the potential for minor or moderate adverse effects to water quality in the Fort Benning portion of the ROI; likewise, the construction of the Oxbow Meadows and Marina and development related to the Land Exchange in Columbus would have the potential for moderate adverse effect to water quality in the ROI. The rehabilitation of the Maneuver Corridors on Fort

Benning has the potential for long-term positive effects to water quality in the ROI due to the proposed erosion control and soil stabilization measures it will entail, reducing the potential for future sedimentation of adjacent streams. Potential impacts to water quality would be similar to that described under Section 5.1, Soils. Adherence to mitigation required in the Federal and state permits for these projects would further minimize potential effects. Therefore, this alternative would result in no potential for incremental impacts from ongoing activities and no cumulative adverse effects on water quality in the ROI.

### **5.3 Cultural Resources**

The ROI for cultural resources consists of the five-county area containing Fort Benning, Columbus, and Buena Vista, GA, and Phenix City, AL. Past, present, and foreseeable future actions in the ROI include several construction projects and have the potential to contribute to soil disturbance and the inadvertent disturbance of cultural resources. In particular, the construction related to the ISBC, IPBC, DMPRC, and DMPTR are the projects that have the potential for minor or moderate adverse effects to cultural resources in the Fort Benning portion of the ROI; likewise, the construction of the Oxbow Meadows and Marina and development related to the Land Exchange in Columbus would have the potential for minor adverse effects to cultural resources in the ROI. Demolition of National Register of Historic Places-eligible or potentially eligible buildings associated with the construction of new barracks on the Main Post, Sand Hill, and Kelley Hill cantonment areas also has the potential for minor or moderate adverse effects to cultural resources. Adherence to avoidance, minimization, and mitigation measures identified during consultation with the SHPO and/or Tribes for these projects would minimize potential adverse effects.

Initially, an evaluation of all potentially eligible cultural resources sites would be required to confirm or reject their suitability for the NRHP. The cultural resources sites determined to be eligible would then require mitigation, such as (1) avoidance of impacts through redesign of the DMPRC via either movement of targets or battle positions or the construction of berms, if reasonable; (2) excavation of the site to acquire the scientific and historic information inherent within their archeological context; or (3) other mitigation, which will be determined through consultation with the SHPO and the Tribes. If this alternative were chosen, Fort Benning would initiate consultation with the SHPO and Tribes to determine any other mitigation and develop a Memorandum of Agreement (MOA), as needed. Concurrent with the construction of the W/WW connection lines, other projects, such as the construction of the force protection measures and barracks projects on Fort Benning, and the development of the North Tract and Oxbow Learning Center and Marina in Columbus, would be ongoing, resulting in potential minor adverse effects to cultural resources resulting from tree clearing, cut-and-fill, and other construction activities. Construction of the FY06 and beyond projects, to include the DMPRC, DMPTR, ISBC and IPBC would have potentially minor adverse effects due to tree clearing and construction activities, but these potential effects would also be minimized through adherence to applicable Federal, state, and local laws and regulations, and through adherence to all required mitigation, as determined through consultation with the SHPO and the Tribes. Therefore, this alternative would result in no potential for incremental impacts from ongoing activities and no cumulative adverse effects on cultural resources in the ROI.

## **6.0 CONCLUSIONS and RECOMMENDATION**

### **6.1 CONCLUSION**

Construction of the water and wastewater connection lines will allow Fort Benning to meet the requirements of DRID #49 while providing the means to properly maintain and upgrade the water and wastewater systems. Although minor adverse effects are predicted for soils, vegetation, water quality, and air quality, these impacts would be minimized through adherence to all required permits and all applicable Federal, state, and local laws and regulations. No effects are predicted to species of conservation concern and socioeconomics; however, positive effects are predicted for utilities, due to the requirements placed on the new owner of the system and the improvements predicted as a result of the privatization effort. No potential incremental impacts for ongoing activities are predicted; in addition, no potential cumulative adverse effects are predicted.

### **6.2 RECOMMENDATION**

The recommended course of action is to proceed with the Revised Alternative III, construction of the water and wastewater connection lines, as indicated on Figure 2 of this document, because it will meet the purpose and need for this action (compliance with DRID #49) while minimizing environmental impacts associated with its implementation by aligning closely with previously disturbed areas and established roads and rights-of-way.

### **6.3 PERSONS AND AGENCIES CONSULTED**

Arnett, Clifford J., Senior Vice President of Operations, Columbus Water Works, 2003.

Barron, Michael, Wildlife Biologist, Conservation Branch, Directorate of Public Works, Fort Benning, 2003.

Brown, John, NEPA Program Manager, Directorate of Public Works, 2004.

Chauvey, Patrick, Chief of Environmental Programs Management Branch, Directorate of Public Works, Fort Benning, 2004.

Clark, Mignon, Asbestos/Lead-Based Paint/PCB Program Manager, Directorate of Public Works, Fort Benning, 2003.

Davis, Steven R., Vice President of Engineering, Columbus Water Works, 2003.

DeCarlo, Dom, Realty Officer, Directorate of Public Works, Fort Benning, 2004.

Fincher, Mark, Utilities Manager, Directorate of Public Works, Fort Benning, 2004.

Gustafson, Polly, Air Program Manager, Directorate of Public Works, Fort Benning, 2004.

Hamilton, Dr. Christopher, Cultural Resources Program Manager, Directorate of Public Works, Fort Benning, 2004.

Hollon, Gary, Soil Conservationist, Conservation Branch, Directorate of Public Works, Fort Benning, 2003.

Johnson, E.F., CSM Manager, CH2M Hill, 2003.

Jones, Larry, Historic Architect, Directorate of Public Works, Fort Benning, 2004.

Seda, Felix, SPCC/SWP3/EPCRA Program Manager, Directorate of Public Works, Fort Benning, 2004.

Swiderek, Pete, Chief, Conservation Branch, Directorate of Public Works, Fort Benning, 2004.

Veenstra, Linda, Environmental Attorney, Staff Judge Advocate's Office, Fort Benning, 2004.

#### **6.4 REFERENCES**

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