

Environmental Assessment

of the

Army Residential Communities Initiative (RCI) Properties at Fort Belvoir, Virginia



Prepared for

**Garrison Commander,
Fort Belvoir, Virginia**



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**Environmental Assessment of the
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at Fort Belvoir, Virginia
July 2003**

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Executive Summary

Introduction

The Military Housing Privatization Initiative (MHPI)¹, gives the Army new, alternative authorities for improvement and construction of military family housing. Privatization actions taken under the new authority are referred to as the Army Residential Communities Initiative (RCI). Under existing budgetary constraints, the Army is unable to address the critical housing needs of America's soldiers and their families. Under RCI, installations can leverage scarce public funds for construction, maintenance, management, renovation, replacement, rehabilitation, and development of Army family housing and ancillary supporting facilities.

Background

Fort Belvoir is located in southeastern Fairfax County, Virginia (VA), about 12 miles southwest of Washington, District of Columbia (DC), 10 miles from the Pentagon, and five miles from Alexandria, VA. The Main Post lies near the community of Mount Vernon, alongside the Potomac River, Dogue Creek, Gunston Cove, and Pohick Creek, about 85 miles upstream of the Chesapeake Bay. Fort Belvoir's main entrance (Pence Gate) is just off of U.S. Route 1 at Belvoir Road. Route 1 divides the Main Post into areas known as North Post and South Post. Fort Belvoir supports an installation working population of about 22,200 persons, including about 10,000 civilian employees and 4,400 military service members, as well as about 4,500 military family members living on post. Fort Belvoir also provides community services to many military retirees living in the greater metropolitan Washington area.

Fort Belvoir provides 2,070 family housing units in 12 distinct housing villages for military families. Unlike many other Army installations, Fort Belvoir's family housing units are available to permanent party military personnel stationed both at Fort Belvoir and elsewhere in the Washington metropolitan area. It is estimated that approximately 75 percent of the military personnel living at Fort Belvoir commute to work at locations throughout the Washington metropolitan area. Fort Belvoir's family housing was built between 1920 and 1980; 79 percent of the existing homes were built before the early 1960s and the remaining 21 percent in 1980. Architectural surveys at Fort Belvoir determined that a total of 211 buildings (256 housing units and 11 garages in Belvoir Village, Gerber Village, Jadwin, Park and Rossell Villages) are eligible for listing on the National Register of Historic Places, as contributing structures to the Fort Belvoir Historic District. Fort Belvoir's housing has been well maintained and the historic officer housing in Belvoir Village is spacious. However, most of the older units suffer from insufficient floor space, insufficient storage, and poor layout.

¹ Public Law 104-106, as amended, was originally enacted in Section 2801 of the 1996 Defense Authorization Act and is codified at Title 10 of the United States Code [U.S.C.] Sections 2871-85

Proposed Action and Alternatives

Fort Belvoir has an urgent and immediate need to upgrade the housing provided on the installation for military service members and their families. Current family housing at Fort Belvoir is largely deficient in square footage and configuration for modern families. The purpose of the proposed action is to improve the quality of the housing stock at Fort Belvoir, by enlarging and modernizing the housing units; to improve military families' access to improved housing, by reducing the turnaround time of the military funding and construction process; and to provide first-rate neighborhood centers and recreation facilities.

Consistent with authorities contained in the 1996 MHPI, the Army proposes to transfer the responsibility for providing family housing and ancillary supporting facilities² to a partnership between the Army and a private development entity. This partnership will be known as Fort Belvoir Residential Communities, LLC (FBRC), a limited liability company. As its partner, Fort Belvoir has selected Clark Pinnacle Family Communities, a joint venture between Clark Realty Capital, LLC, and Pinnacle Realty Management Company, that was formed to develop and manage military housing. The Army is working jointly with Clark Pinnacle to develop a *Community Development Management Plan* (CDMP) that will implement the transfer of family housing operations at Fort Belvoir to FBRC.

Under the proposed action, the Army will:

- Convey all 2,070 existing military family housing units and 11 detached garages in twelve existing housing villages to FBRC, to be either rehabilitated or demolished and replaced. Upon transfer, FBRC will assume responsibility for all family housing operations at Fort Belvoir. When redevelopment and rehabilitation are complete, the total units of family housing will equal the current inventory of 2,070 housing units.
- Provide FBRC with a 50-year ground lease for the land underlying these housing villages, which totals approximately 548 acres³ and is 85.5 percent of the land area defined for troop and family housing use by the 1993 Master Plan. At the Army's option, the term of the lease could be extended for an additional 25 years.
- Provide a 50-year land lease, which could be extended by another 25 years, for two additional land. A 77-acre land area near the center of South Post will be developed first (referred to as "New South Post Village"), to allow families in existing housing to move into new housing while reconstruction or rehabilitation work occurs in existing housing areas. A new community recreation center will be built on a 5-acre area nearby.

² According to 10 U.S.C. 2871, the term *ancillary supporting facilities* means "facilities related to military housing units, including facilities to provide or support elementary or secondary education child care centers, day care centers, tot lots, community centers, housing offices, dining facilities, unit offices, and other similar facilities for the support of military housing." However, schools, dining facilities, and unit offices will not be considered as part of the proposed privatization of military family housing at Fort Belvoir. For the purposes of this document, *ancillary supporting facilities* also includes housing property management and maintenance facilities operated by the partnership.

³ Exact boundaries and acreage of the RCI parcels to be leased will be determined by a survey of metes and bounds. Some portions of these study parcels that are not needed for future housing or ancillary facilities are expected to be removed, by the metes and bounds survey, from the parcels to be transferred.

- Transfer four existing non-housing buildings on the New South Post Village land for demolition and the existing Comcast satellite dishes on the industrial-use portion of the parcel would either be relocated or replaced by underground cable.)
- Lease additional disturbed land (up to 26 acres) and 5 existing buildings to FBRC for temporary construction support and long-term property management/maintenance use. These buildings and land will not be in the 50-year ground lease and Fort Belvoir may reclaim them for another use in the future.

A number of locations were considered before selecting the areas proposed for “swing space” housing, a new Recreation Center and temporary construction support facilities. Siting principles for new construction include focusing new development on previously disturbed areas and emphasizing pedestrian access in facility siting, by locating housing, services and employment centers close together. Selection of the location for New South Post Village and the 5-acre Recreation Center parcel adheres to these principles by siting the new village Recreation Center on previously disturbed land that is close to the South Post’s community facilities.

Two temporary construction staging areas were selected from a number of potential sites, in an iterative screening process that considered environmental concerns, transportation, proximity to Route 1, adjacent operations, proximity to residential areas and the Accotink Bay Wildlife Refuge, historic viewshed, permitting requirements and the existing infrastructure needed to support the operations. The proposed construction support sites were previously cleared and partially paved.

The preferred alternative is the proposed action summarized above. The no action alternative is also evaluated in this EA. Other alternatives (Partial Privatization, Private Sector Reliance, and Off-Post Leasing) were determined to be not feasible and therefore are not evaluated in detail in this EA.

Environmental Consequences

The Environmental Assessment (EA) evaluates potential effects on land use, aesthetics and visual resources, air quality, noise, geology and soils, water resources, biological resources, cultural resources, socioeconomics (including environmental justice and protection of children), transportation, utilities, and hazardous and toxic substances. For each resource, the predicted effects from both the proposed action and the no action alternative are briefly described below.

Consequences of the Proposed Action

Land Use

Overall, the proposed action would result in long-term minor beneficial effects on installation land use. Locating the housing units in New South Post Village closer to community services is an improvement in land use (see “Land Use Planning Principle” in section 3.0). Existing residential areas would be improved for the designated land use through housing rehabilitation and redevelopment, although the land use designation of

these areas would not change. No areas that are currently used for family housing would be converted to other uses.

Fort Belvoir is currently developing an update to the 1993 Master Plan. Land use planning for the proposed action has been coordinated with the planning process for the updated (2004) Master Plan.

According to the Land Use GIS layer provided by Fort Belvoir DPW-L in June 2003, most of the land area (94 percent of 548 acres) proposed for transfer with the existing housing villages currently carries the land use designation of Troop and Family Housing. However, the boundaries of Belvoir, Colyer, Dogue Creek, Fairfax, George Washington, Gerber, Jadwin, Lewis Heights, Park and Rossell Villages, will be expanded to include approximately 31 acres total of land that was designated in the 1993 Master Plan as Administrative/Education. In addition, Dogue Creek and Lewis Heights Villages will be expanded to include approximately two acres of land that was designated as Community Facility.

For the proposed New South Post Village, the proposed action will result in a modification in land use designation from Administrative and Education (approximately 4 acres), Community Facilities (approximately 35 acres), Industrial (approximately 6 acres), and Outdoor Recreation (approximately 35 acres) to Family Housing.

The land use designations of these areas is being changed to Family Housing in the updated (2004) Master Plan.

Aesthetics and Visual Resources

Long-term minor beneficial effects would be expected. Rehabilitation of existing housing units that are currently in need of upgrading; construction of new, modern housing; and the addition of recreational areas, vegetated noise buffers, and native-plant landscaping within the housing communities affected by the proposed action would be expected to improve the aesthetic and visual appeal of the villages.

Construction of new garages in Belvoir and Gerber Villages will block the view of some green spaces, which in and of itself is an adverse effect. However, the additional storage space provided to the residents will eliminate the need for temporary storage sheds and allow residents to store belongings in the garages rather than in front, side, and back yards as is currently occurring, resulting in a beneficial effect. The ability to park cars in the garages, rather than on the street, will result in an overall improvement in the view of the neighborhood. Many of the existing garages in Belvoir Village do not meet the current size vehicle requirements causing residents to park on the street or in the driveway. In addition, design of elements in the historic areas including garages, street benches, street and yard lighting will be in accordance with the Programmatic Agreement. Therefore, construction of the new garages is expected to have an overall neutral effect to the views in Belvoir and Gerber Villages.

Air Quality

The proposed action will not exceed the *de minimis* criteria of 25 tons per year of volatile organic compounds or nitrogen oxides, due to the phasing of construction over time.

Therefore, a conformity determination was not required. The proposed action includes a construction support stone crusher, concrete batch plant, and wall panel assembly facility, which would be considered stationary sources on the installation during the construction period. The annual pollutant Potential to Emit from the proposed action would be below all of the specified Prevention of Significant Deterioration and Nonattainment Area significant emission increase levels. Therefore, the proposed action would not be subject to New Source Review.

Noise

Short-term adverse, but not significant, effects of noise in the annoyance range (70 decibels and above) for residents and wildlife would be expected during construction and rehabilitation activities. Implementation of the proposed action would be expected to result in additional sources of noise during construction activities due to the operation of construction equipment and construction activities in general. FBRC will respect distances and sound-mitigation techniques in regards to home replacement, new housing, and rehabilitation activities and will consult with the Fort Belvoir Industrial Hygienist and the representatives of sensitive receptors as needed during the project.

Geology and Soils

No effects to geology, topography, prime farmland, or seismic activity would be expected from the proposed action. Both short-term minor adverse effects and long-term minor beneficial effects to soils would be expected in those areas within the villages where demolition of existing houses and new construction are expected. In the short term, increased runoff and erosion would occur during site construction due to removal of vegetation, exposure of soil, and increased susceptibility to wind and water erosion. In the long term, implementation of the proposed action would decrease soil erosion from stormwater runoff through the creation of stormwater best management practices (BMPs), which are lacking in most of the villages.

Water Resources

Both long-term beneficial and short-term minor adverse effects would be expected for surface water as a result of storm water management during and after the construction of new housing villages. The proposed action will first and foremost avoid impacts to stream channels where practicable through proper development planning. There are anticipated to be impacts to storm channels and a short segment of intermittent stream. Mitigation for unavoidable impacts will be determined, in consultation with US Army Corps of Engineers and Directorate of Public Work & Logistics⁴-Environmental and Natural Resources Division. Where perennial streams exist near (or within) the village footprint boundary, development will be conducted in accordance with the Fairfax County Chesapeake Bay Preservation Ordinance and Environmental Quality Corridor Policy. Therefore, no significant impacts to the Resource Protection Areas (RPAs) are expected. There are also no significant impacts to the 100-year floodplain.

There will be a substantial increase in impervious surface outside the RPA; however this potential impact will be mitigated through standard storm water management practices, as

⁴ Formerly DIS (Directorate of Installation Support)

detailed in the Fairfax County Public Facilities Manual. Where practicable, infiltration-type storm water management practices will be implemented, in an attempt to more closely mimic the hydrology of a vegetated site and reduce the impacts of concentrated flows. Currently, in most locations, storm water discharges directly to the stream channel without any water quality or quantity improvements. Therefore, stormwater flows will be reduced and water quality will be improved, compared to existing conditions, in areas where stormwater management is provided. As a result of this addition of water quality and quantity controls, the proposed action is expected to have a long-term beneficial effect on the surface waters.

In the short term, construction activities would increase surface erosion and increase the dissolved solid and sediment content in the storm water runoff water, in turn reducing water quality in the surface waters. However, storm water runoff during the construction phase in the villages and in the construction areas will be adequately controlled through implementation of a erosion and sediment control plan, consistent with the Fairfax County Public Facilities Manual and the Virginia Erosion and Sediment Control Handbook.

Long-term minor beneficial effects would be expected on groundwater because of storm water management measures envisioned that will promote infiltration. This would be expected to have a positive impact on groundwater recharge.

Biological Resources

Both short-term adverse and long-term beneficial effects would be expected to occur. Construction activities and associated clearing will cause temporary short-term adverse effects to the vegetation and wildlife. To the extent possible, existing stands of trees within the housing parcels will be left in place. In an effort to protect existing vegetation, forested areas that are not needed for housing or stormwater management will be removed from the boundaries of the proposed lease parcels by the metes and bounds survey. In addition, no additional clearing will take place for construction staging areas.

In accordance with the Army's policy on natural resource protection, construction activities will avoid impacts to the habitats of sensitive species. Therefore, no long-term adverse effects are expected for sensitive species.

Wetlands impacted during construction are expected to be minor due to the maintaining of forested buffers associated with streams that contain the majority of the wetland systems. Long-term effects are not expected because all impacts will be mitigated with compensation in the form of restoration, creation or enhancement. In accordance with the Army's policy on natural resource protection, construction activities will seek to avoid impacts to wetlands.

Cultural Resources

By definition, transfer of historic buildings to FBRC is considered an adverse effect under the National Historic Preservation Act. Other planned activities that are part of the proposed action will also result in adverse effects on historic properties. The undertaking is not expected to result in significant impacts, because adverse effects on historic properties will be mitigated in accordance with the Programmatic Agreement that is being developed

by the Army, the Virginia State Historic Preservation Officer (SHPO) and other consulting parties.

The strategy for Fort Belvoir's neighborhoods that contribute to the Fort Belvoir Historic District is to retain and rehabilitate all housing from the 1930s Colonial Revival Plan for the development of Fort Belvoir; to retain and rehabilitate examples of the 1920s wood-frame temporary housing; and to remove the remaining 1920s frame houses and the 1940s brick duplexes in Rossell Village, to allow redevelopment of housing villages within the limited land areas currently available. In all, 73.5 percent (155 of 211) of the historic buildings will be rehabilitated and 26.5 percent (56 of 211 buildings) of the historic buildings, those which have been determined to be inappropriate for rehabilitation based on their condition and siting, are proposed for demolition and mitigation in accordance with the Programmatic Agreement. Rehabilitation, alterations and additions are proposed for Fort Belvoir's historic houses to provide modern, functional, and convenient homes. To avoid or minimize adverse effects, interior and exterior rehabilitation will be conducted in accordance with the terms of the Programmatic Agreement that is currently being developed and the Secretary of the Interior's Treatment Standards for Rehabilitation.

Of the 22 archeological sites identified within or adjacent to the subject parcels, 9 sites will not be affected by the proposed action. Six sites that have been recommended as not eligible for listing on the National Register of Historic Places (NRHP) could be disturbed by construction. Seven sites that are potentially NRHP-eligible could be affected. Efforts will be made in final site planning to avoid these sites. If they could be affected by construction, the Army will undertake an archeological survey to determine their NRHP-eligibility and will consult with the Virginia SHPO to determine how to avoid or resolve an adverse effect on the affected sites.

Before the ground lease is finalized, the boundaries of the Belvoir Manor ruins and Fairfax family cemetery site will be reevaluated and verified by a field survey, to ensure that this site will be excluded from the ground lease. Direct and indirect impacts of new construction to this NRHP-listed site will be avoided in final planning and public access to the site will be maintained.

Socioeconomics

Short-term minor beneficial effects would be expected in the regional economy as a result of expenditures and employment associated with construction of new housing. Long-term beneficial effects on quality of life for Fort Belvoir residents also would be expected. The supply of 3-, 4- and 5-bedroom units on Fort Belvoir would be increased. The proposed action will improve the condition and aesthetic appeal of existing housing through replacement and rehabilitation, provide five new neighborhood community centers, a Welcome Center and a new Recreation Center, and improve other recreational facilities. The proposed action will provide a new Recreation Center on South Post, as well as five new neighborhood community centers and new or improved outdoor recreation (ballfields, tennis courts, fitness courses, tot lots, etc) within the villages. An existing baseball field and Skate Park that will be displaced by housing construction will be relocated.

An adverse effect upon an off-post private recreational organization has been identified. Fort Belvoir currently allows the Woodlawn Little League nonexclusive use of the

installation's McNaughton baseball fields in Woodlawn Village, under a no-cost license that would need to be terminated before the land transfer to FBRC. Other ballfields are available for their use. However, the Army is actively considering transferring this land (approximately 10 acres) to Fairfax County, perhaps in exchange for other County land.

Assuming the occupancy rate increases to 95 percent at build-out, compared to occupancy rates of 77 to 89 percent in recent years, there could be a minor increase in on-post population (about 367 people, or 5.3 percent above the on-post population in family housing of 6,968 persons at the 2000 Census). Minor population-driven effects on local schools, on-post demand for law enforcement, fire protection services, medical services, and family support services could result. No adverse effect on shops and services, or homeless services and other special programs would be expected to result.

Fort Belvoir has consulted with Facility and Planning Analysis staff of Fairfax County Public Schools (FCPS); analysis did not project a significant increase in student population from this proposed RCI action. Fort Belvoir will continue to work closely with Fairfax County Public Schools to address any issues that may arise as a result of RCI at Fort Belvoir.

Construction would have minor adverse effects on the minority population in the off-post neighborhood to the south of Woodlawn Village, such as construction traffic, fugitive dust and noise may affect, across Pole Road where the nearest residences are 100-150 feet from the edge of Woodlawn Village. Noise, dust, and traffic generated by construction would be minimized through construction plans.

Transportation

As a result of the proposed action to rehabilitate and replace units in existing housing villages, there will be increases in traffic on roadways on and surrounding Fort Belvoir. The overall impact of this added traffic is not considered significant. Many study area intersections are expected to be at or to exceed their theoretical capacity, with or without the proposed action, beyond those that are expected to do so without the proposed action. Additional trips generated by the RCI development do not result in any intersections within the study area exceeding their theoretical capacity, beyond those that are expected to do so without the proposed improvements. Planned projects by others for roadways surrounding Fort Belvoir have the potential to reduce congestion on roadways serving the area.

Utilities

Under the proposed action, long-term minor beneficial effects would be expected for the potable water supply. Areas of new construction would receive new delivery lines within the development area providing improved water delivery and reduced water exfiltration and loss. Under the proposed action, long-term minor beneficial effects would be expected for the sanitary sewer system. Areas of new construction would receive new wastewater collection lines within the development area. Under the proposed action, long-term minor beneficial effects would be expected for the electric system. Although not a certainty, this utility may be privatized in the near future, resulting in long-term beneficial effects as the system will be fully upgraded. Under the proposed action, long-term minor beneficial effects would be expected for the gas system. Furthermore, beneficial effects would result from the construction and renovations of the housing units with the installation of energy efficient materials and systems. Under the proposed action, long-term minor beneficial

effects would be expected for the communication system. The communication distribution system will be installed underground for all new areas of construction. In areas of renovation, the system will be a continuation of the existing overhead or underground system in place.

Short-term adverse (but not significant) effects would be expected from the debris associated with the construction, demolition, and rehabilitation of family housing units and initial increases in water and sewer demand until final reductions in usage are achieved after construction is complete.

Hazardous and Toxic Substances

Previous investigations identified petroleum, oil and lubricants (POL) products associated with active or removed USTs and ASTs within and adjacent to the RCI footprint. Closed and active POL and Solid Waste Management Units (SWMUs) currently exist within and adjacent to the RCI footprint. SWMUs also currently exist within and adjacent to the temporary stone crushing construction site. Within the RCI parcels, one site within Dogue Creek Village, north of unit #900 (PC# 97-3115), is undergoing active remediation of soil contaminated by heating oil leakage from multiple heating oil tanks from various buildings within Dogue Creek Village. Sites near the housing villages are also undergoing remediation of soil contaminated by heating oil leakage.

Hazardous materials (i.e., asbestos containing materials [ACM] and lead based paint [LBP]), have also been identified within housing units in the RCI footprint. Removal and disposal of these constituents will be performed only by qualified personnel.

During activities at the northern (panel construction and lumber storage) and the southern temporary construction sites (stone crushing activities and concrete plant), hazardous materials will be generated. All hazardous materials generated at these sites will be stored and disposed of in accordance with relevant and applicable federal and state of Virginia environmental laws. FBRC will be required to obtain their own RCRA small quantity generator permit from Virginia for the operation and maintenance of their facilities. Fort Belvoir will apply to the Department of the Army for a waiver to 10 U.S.C. Sec. 2692 to allow the FBRC to store small quantities of materials that contain hazardous constituents on post.

FBRC will coordinate with the Army to minimize disturbance or impacts affecting the current status of SWMU sites, closed POL sites, and on-going remedial activities on the RCI properties as well as the adjacent properties.

Cumulative Effects

Adverse but not significant cumulative effects during the eight-year construction phase on noise and traffic would be expected to occur, due to construction projects scheduled to occur concurrently with the family housing construction activities.

During this period of construction activity, adverse cumulative effects on air quality and the noise environment are expected due to construction projects scheduled to occur concurrently with the family housing construction activities. Other development projects (such as DCEETA, DAAF FS, INSCOM HOT, DTRA, DeWitt Hospital, and AMC) on the post that have begun or will be in operation concurrently with the proposed action have

projected emissions ranging from 19.8 tpy to 52.2 tpy for the years 2004-2008 (DIS-ENRD, August 2001). The combined impact of these sources, along with the proposed action will most likely cause stationary sources at the post to be subject to nonattainment NSR permitting requirements because of the potential post-wide NO_x net increase above the NSR threshold of 25 tpy. The applicability of NSR requirements because of the potential post-wide NO_x net increase will need to be reviewed again as these projects reach the air permitting and facility final design stage.

Cumulative traffic effects are expected in association with the temporary AMC Headquarters, DeWitt Hospital relocation and the DCEETA facility. Gunston and Kingman Roads on North Post and Gunston and Belvoir Roads on South Post would be expected to see increases in traffic volumes with these facilities. Long-term cumulative traffic effects with planned and potential projects are accounted for in the background traffic growth assumptions for the 2011 horizon year in the traffic analysis.

Increased impervious surface from all of these facilities will result in an increased volume of stormwater runoff; however the proposed stormwater management for each facility is anticipated to provide sufficient mitigation to prevent cumulative adverse impacts. There are substantial increases in impervious surface from the AMC and RCI projects within subwatershed 03. Both projects will mitigate with storm water management in order to prevent an increase in stormwater runoff in this area. Due to the added potential for cumulative impacts in this subwatershed, however, FBRC will specifically target this subwatershed for additional infiltration where practicable. Stormwater from the new North Post Chapel site will be specifically reviewed during development of the storm water management controls for Lewis Heights, to ensure there are no cumulative impacts. Because there is currently a limited amount of stormwater management in the RCI parcels, there is expected to be a beneficial impact on surface waters as a result of the proposed action. This is not anticipated to change as a result of cumulative effects from other projects.

Potential impacts to vegetation, wildlife, and wetlands from the RCI project are not expected to significantly increase overall effects from the relocation of DeWitt Hospital and of AMC headquarters and the construction of the New North Post Chapel. Moving the hospital will cause approximately 19 acres of mixed hardwood-pine forest to be cleared and 21 acres (including a mowed grass, a grass shrub strip, 3 acres of a wooded area and scattered landscape trees) will be impacted by the AMC project. Mitigation for these actions is to replace the trees with a 2:1 replacement ratio. Removal of vegetation from the combined projects will be compensated for in consultation with the Fort Belvoir Environmental Office. The Army has a policy of no net loss of wetlands; therefore, all potential impacts to wetlands will be compensated for on Fort Belvoir.

Consequences of the No Action Alternative

Only those resources that would be affected by the no action alternative are discussed below.

Aesthetics and Visual Resources

Long-term minor adverse effects would be expected. Under the no action alternative, the Army would be responsible for maintenance and renovation of existing housing, which

would occur more slowly than under the proposed action alternative and could result in some degree of visible deterioration over time. No action would result in a continuation of existing conditions including overhead utility lines and visibility of Lewis Heights housing from Woodlawn Plantation. This would be expected to adversely affect visual and aesthetic resources on and off the installation.

Surface Water Resources

No significant effects would be expected on surface water as a result of continuation of current stormwater management practices in conjunction with maintenance and repair of the housing within the existing villages. However, due to the lack of stormwater management in several locations under existing conditions, streams will continue to erode and adjust, creating steep and undercut stream banks, until a new, stable channel alignment is reached. This process can continue indefinitely if the watershed continues to develop or if the stream can not find a stable equilibrium.

Socioeconomics

Long-term minor adverse effects would be expected. Continuation of current family housing programs would perpetuate deficiencies in quality of life for some soldiers and their dependents. Availability of family housing that is both affordable and of high quality is a key function of quality of life and is often given high priority by soldiers and their families. Fort Belvoir would continue to perform regular maintenance on existing housing. Future renovation projects could occur at some point, but it would be on a constrained budget and therefore over a longer period of time, compared to the proposed action.

Hazardous and Toxic Substances

Minor adverse effects could occur. It is assumed that Fort Belvoir will continue to control and abate the potential hazards posed by ACM and LBP in accordance with applicable laws and regulations, but future abatement actions may be over a greater period of time than under the proposed action. No additional adverse effects beyond those currently present from the actual and suspected hazardous or POL materials in the RCI foot print would occur.

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