

# 1 Purpose, Need, and Scope

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This section begins with a brief summary of the Army's proposed action under the Army's Residential Communities Initiative. (See Section 2.0 for details about the proposed action.) Section 1.1 describes the background of the military housing privatization initiative and Fort Belvoir. Section 1.2 discusses the purpose and need for the proposed action. Section 1.3 outlines the scope of this environmental assessment (EA) and section 1.4 describes the way public input has been incorporated into the study process.

The Army proposes to transfer the responsibility for providing military family housing to a partnership between the Army and a private development entity. This partnership will be known as the Fort Belvoir Residential Communities, LLC (FBRC), a limited liability company. The Army is working jointly with the selected development entity to develop a *Community Development and Management Plan* (CDMP) that will implement the transfer of family housing operations at Fort Belvoir to FBRC.

Under the proposed action, the Army will:

- Direct the implementation of the CDMP that will have been negotiated with and approved by the installation.
- Convey all its existing military family housing units and grant a 50-year ground lease for the areas on which the housing and facilities are located, to FBRC. At the Army's option, the term of the lease could be extended for an additional 25 years.
- Include in the ground lease enough additional land (not currently used for housing) to construct "swing housing" and community amenities.
- Upon completion of redevelopment and rehabilitation, the total number of homes for soldiers and their families on Fort Belvoir will not differ from the current inventory of 2,070 family housing units.

## 1.1 Background

### 1.1.1 Military Housing Privatization Initiative

The Department of the Army (DA or Army) operates and maintains approximately 90,000 family housing units at its installations throughout the United States. More than 75 percent of the units do not meet current Army housing standards. Despite this, at most installations demand for adequate on-post housing exceeds supply. The lack of adequate housing forces many military families to live in housing that is in need of repair or renovation or to live off-post, where the cost and quality of housing varies considerably. Often, the costs to military personnel and their families to live off-post are 15 to 20 percent greater than the costs to live on-post. The Army estimated that as much as \$6 billion would be needed to bring its housing up to current standards and to address the deficit of housing (Army Residential Communities Initiative Website, 2001).

In recognition of these problems, Congress enacted Section 2801 of the 1996 Defense Authorization Act (Public Law 104-106, as amended, codified at Title 10 of the United States Code [U.S.C.] Sections 2871-85). Also known as the Military Housing Privatization Initiative (MHPI), this provision of law creates alternative authorities for improvement and construction of military family housing. The legislative intent of Congress in enacting these additional authorities is to enable the military to obtain private sector funding to satisfy family housing requirements. By leveraging available public funding, the Army can obtain private sector funds for construction, maintenance, management, renovation, replacement, rehabilitation, and development of Army family housing and ancillary supporting facilities<sup>1</sup>. The Army's implementation of the MHPI authorities is known as the Army Residential Communities Initiative (RCI).

### 1.1.2 Fort Belvoir

The Main Post of 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 5 miles from Alexandria, VA. (See Figure 1-1.) The installation also exercises direct responsibility for the Engineer Proving Ground, located about 2 miles northwest of Main Post.

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, which is the main thoroughfare through South Post. Route 1 divides the Main Post into areas known as North Post and South Post. Accotink Village, an enclave of privately owned land on the north side of Route 1 across from Tulley Gate, is surrounded on all other sides by Fort Belvoir's North Post.

The Federal government acquired 1,500 acres of land on the Belvoir peninsula in 1910 and it was turned over to the War Department in 1912. The Army began using the Belvoir peninsula in 1915 as a summer training camp and rifle range for engineers stationed at Washington Barracks (now Fort McNair). The installation gained permanent status as Fort A. A. Humphreys in 1922 and was renamed Fort Belvoir in 1935. Until 1988, Fort Belvoir hosted the U.S. Army Engineer School.

Today, Fort Belvoir is the Army's principal administrative and logistics center for the National Capital Region. Fort Belvoir is one of over 20 military installations managed and funded within the Northeast Region Office (NERO) of the Installation Management Agency (IMA). The NERO is headquartered at Fort Monroe, Virginia.

Fort Belvoir is home to two major Army Command Headquarters and elements of 10 others; 19 different agencies of the Army; 8 elements of the U.S. Army Reserve and the Army National Guard; 26 Department of Defense (DoD) agencies; a Marine Corps detachment; a U.S. Air Force activity; and an agency from the Department of the Treasury (Fort Belvoir

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<sup>1</sup> 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 evaluated in this EA. For the purposes of this document, *ancillary supporting facilities* also includes housing property management and maintenance facilities that will be operated by the partnership.

Website, 2003). 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 Website, April 2003; data current as of October 2002). 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. In addition, Fort Belvoir provides billeting for 808 permanent party enlisted personnel, as well as transient lodging consisting of 491 visiting officer quarters, 23 visiting enlisted and 21 distinguished visitors' quarters (Fort Belvoir Website, April 2003).

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 80-90 percent of the military personnel living at Fort Belvoir commute to work at locations throughout the Washington metropolitan area, including Fort Myer, the Pentagon, and numerous office buildings owned or leased by DoD. In this regard, Fort Belvoir is similar to the civilian communities that surround it.

## 1.2 Purpose of and Need for the Proposed Action

Fort Belvoir has an urgent and immediate need to upgrade the housing provided on the installation for military service members and their families. As the MHPI recognizes, service members and their families deserve to live in housing that is both affordable and of high quality. Service members should not have to live off-post or spend more than their Basic Allowance for Housing (BAH) to obtain good quality housing. The purpose of the proposed action is to improve the quality of the housing stock at Fort Belvoir, by enlarging, modernizing, and redeveloping the housing units; to improve military families' access to improved housing, by avoiding the lengthy turnaround time of the military funding and construction process; and to provide first-rate ancillary supporting facilities.

Current family housing at Fort Belvoir is largely deficient in square footage and configuration for modern families. For many years, funding for housing modernization has been limited, unpredictable, and subject to higher Congressional priorities; as a result, today's soldiers and their families at Fort Belvoir are generally housed in military quarters that are cramped, poorly laid out, and lacking in modern amenities.

Fort Belvoir's problem is also the Army's problem. As the Army's RCI Website <[www.rci.army.mil](http://www.rci.army.mil)> states, "Under existing budgetary constraints, the Army is unable to address the critical housing needs of America's soldiers and their families." RCI gives the Army and the other military services the tools to address similar housing challenges at a broad range of military installations within the United States.

### 1.2.1 Inventory and Condition of Fort Belvoir Housing

Fort Belvoir's 2,070 existing military family housing units are located in 12 distinct housing villages. Two of these villages are located on North Post and the remainder on South Post. Fort Belvoir's family housing was built between 1920 and 1980, with 79 percent of the existing homes built before the early 1960s and the remaining 21 percent in 1980. The age

and condition of the military family housing varies from newer units, constructed or substantially renovated within the last two decades, to older units dating back to the early 1920s and mid-1930s.

Architectural surveys at Fort Belvoir have determined that a total of 211 buildings (consisting of 256 single-family, duplex, and townhouse housing units plus 11 garages) in Belvoir Village, Gerber Village, Jadwin, Park and Rossell Villages are eligible for listing on the National Register as contributing elements to the Fort Belvoir Historic District.

According to the housing inventory in the *Army Family Housing Master Plan*, as of 1999, only 219 of Fort Belvoir's 2,070 housing units were rated as "adequate" under the Army's standards of acceptability, based on the condition of major components (i.e., the site and grounds, building exterior, interior workspace, bathrooms, utilities, kitchens, and laundry rooms), and 1,851 units were rated as inadequate," which was defined as units requiring a major repair, component upgrade, component replacement, or total upgrade (DA, 2001). However, since that report was published, 270 homes in Dogue Creek Village have been gutted and rebuilt to provide more space and some of the missing amenities. These rebuilt units provide another 270 adequate housing units for military personnel and family members.

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. For example, the size and layout of stairwells and entrances in many Capehart units (George Washington, River, and Colyer Villages) are so narrow that some residents have not been able to get their existing bedroom or living room furniture into the units. From the late 1980s to early 1990s, the Wherry apartments of Lewis Heights (built in 1958) Village were gutted and rebuilt to eliminate one-bedroom units, upgrade kitchens and bathrooms, repaint and replace carpeting. Despite that, based on visual inspection and communication with residents, living conditions in Lewis Heights, which houses Junior Non-Commissioned Officers (JNCOs) and Junior Enlisted service members (JENLs), are still undesirable. One of the problems observed were the damp and moldy basements in some of these buildings, where common storage space is located.

Many of the older units also lack contemporary amenities such as family rooms, laundry/utility space, adequate exterior storage, and auxiliary eating areas ("eat-in" kitchens, or "breakfast nooks"). Heating and air conditioning is not adequate or efficient in many older units at Fort Belvoir. Although there is no documented backlog of basic maintenance and repair at Fort Belvoir, available funding is not sufficient to comprehensively renovate all the units that need it (RCI, 2002).

Fort Belvoir's waiting list for family housing includes over 400 families and the average waiting time ranges from 1 month for JENLs and JNCOs, up to 24-30 months for Company and Field Grade Officers (Fort Belvoir Website, April 2003-data current as of October 2002). The 2002 *Housing Market Analysis* report found that vacancy rates of suitable rental housing in the defined housing market area are about 3.7 percent, much lower than the national average of 8.4 percent, and that rental costs for adequate housing in the local economy exceed many service members' BAH (Neihaus, 2002). In particular, there is a shortage of acceptable four-bedroom housing units for JNCOs and JENLs. Only 7.3 percent of the rental housing stock in the housing area has 4 or more bedrooms and off-post housing cannot

support the 4-bedroom requirement within affordability standards (Neihaus, 2002; RCI, 2002). Military families must compete with civilian families for affordable housing, which is an increasingly scarce commodity in the metropolitan Washington area.

### 1.2.2 Goals of the RCI Project

The development entity selected by the Army and Fort Belvoir to form the RCI partnership will be expected to achieve the following goals (US Army, 1998):

- Ensure that eligible military personnel and their families have access to quality, attractive, and affordable housing by either rehabilitating or replacing inadequate existing family housing units.
- Improve the appearance and functions of Fort Belvoir's residential community, while preserving historic properties, protecting cultural resources and meeting environmental stewardship responsibilities.
- Provide ancillary supporting facilities that enhance Fort Belvoir's residential community.
- Maintain positive relations with the communities that surround Fort Belvoir.
- Provide for the effective management and operation of existing, rehabilitated, and new housing units and ancillary supporting facilities on a long-term basis.

## 1.3 Scope of Analysis

To evaluate the environmental impacts of the proposed action, this EA has been developed in accordance with the National Environmental Policy Act (NEPA), implementing regulations issued by the Council on Environmental Quality (CEQ), and Title 32 Code of Federal Regulations (CFR) Part 651 (32 CFR 651), which was published in the Federal Register on March 29, 2002 (final rule) to revise Army Regulation 200-2, Environmental Effects of Army Actions. The purpose of this EA is to support informed decision-making, to document how the likely environmental consequences of Fort Belvoir's proposed RCI action were assessed and to incorporate input from the public into the decision-making process.

This EA focuses on evaluation of environmental effects that are reasonably foreseeable at the present time, as defined by the "Initial Development Plan" that covers approximately the first 8 years of the implementation of the Community Development Management Plan (CDMP), from the anticipated turnover of housing on December 2003 through 2011. The CDMP is the master agreement ultimately negotiated by and between Fort Belvoir and the private development entity and is described in more detail in Section 2.2.1. During the eight-year period initial development period, FBRC will systematically redevelop or rehabilitate the existing family housing for soldiers and their families on the installation.

Subsequently, the partnership will develop an "Out-Year Development Plan" for ongoing revitalization of all the homes, through the construction of additional amenities and systematic rehabilitation of existing structures, over the full 50-year period that the partnership is expected to operate and maintain those housing units and ancillary supporting facilities. Because specific projects cannot be identified at this time,

environmental effects for years beyond 2011 are not reasonably foreseeable at this time and are not analyzed in this EA. The Army will perform future National Environmental Policy Act of 1969 (NEPA) analysis, as necessary, to address additional actions not addressed by this EA. Follow-on NEPA documentation will be required if conditions change beyond the scope of this EA, whether before or after 2011.

The EA identifies, documents, and evaluates the potential environmental and socioeconomic effects of the proposed action, implementation of the Army RCI at Fort Belvoir through the 8-year period covered by the Initial Development Plan of the CDMP. Section 2.0 describes the proposed action. Section 3.0 sets forth alternatives to the proposed action, including a no action alternative, and explains why certain alternatives are not evaluated in detail. Section 4.0 describes existing environmental conditions at Fort Belvoir that could be affected by the proposed action and identifies potential environmental effects that could occur upon implementation of each of the alternatives evaluated. Section 5.0 presents findings and conclusions regarding the potential environmental effects of the proposed action.

An interdisciplinary team of environmental scientists, biologists, ecologists, geologists, planners, economists, engineers, archaeologists, historians, lawyers, and military technicians has reviewed the proposed action in light of existing conditions and has identified relevant beneficial and adverse effects associated with the action.

The document analyzes direct effects (those caused by the proposed action and occurring at the same time and place) and indirect effects (those caused by the proposed action and occurring later in time or farther removed in distance but still reasonably foreseeable). The potential for cumulative effects is also addressed, and mitigation measures are identified where appropriate.

Consistent with Army and other federal regulations and policies, the Army must undertake numerous other actions to achieve its objectives in implementing the RCI at Fort Belvoir. Figure 1-2 identifies the timeline for the EA process in relationship to other actions that accompany the RCI effort.

## 1.4 Public Involvement

Fort Belvoir invites public participation in the NEPA process. Consideration of the views and information of all interested persons promotes open communication and enables better decision-making. All agencies, organizations, and members of the public having a potential interest in the proposed action, including minority, low-income, disadvantaged, and Native American groups, are urged to participate in the decision-making process. Guidance for public participation in the NEPA process is provided by 32 CFR 651.

Residents of family housing are key stakeholders for the RCI project. In preparing to privatize family housing, Fort Belvoir has informed military families and solicited their opinions through a variety of means, including regular Town Hall Meetings, biweekly Resident Advisory Committee meetings and monthly Newcomer's Briefings; a survey for residents' input on current housing conditions and RCI information on the Fort Belvoir Website; articles in the Belvoir Eagle; and updates on Fort Belvoir's Command Channel 3 television. In November 2002, Fort Belvoir and Clark Pinnacle invited residents and the

public to a 4-day, on-site Design Charrette, which was intended to involve residents in the conceptual urban and architectural design of their new community. In 2003, the RCI project team distributed a survey to current residents of the historic neighborhoods to solicit their input in establishing a priority list for rehabilitation work to be completed on historic houses. Residents of historic neighborhoods were then invited to an intake session on April 23, 2003, to view and help refine rehabilitation plans.

In September 2002, Fort Belvoir initiated scoping for the proposed action by correspondence with various regulatory agencies. In December 2002 and March 2003, Fort Belvoir invited representatives of interested regulatory agencies to attend meetings in which the proposed action was discussed. Coordination with these agencies is ongoing.

On January 16, 2003, Fort Belvoir held a public scoping meeting at Walt Whitman Middle School. The meeting was advertised by press releases, public notices in the Washington Post and Northern Virginia Journal, and letters to the installation's existing NEPA mailing list. At the meeting, the Army provided information about the RCI process, the vision for RCI at Fort Belvoir, the NEPA process and the Master Plan update.

Prior to that meeting, based on a projected requirement for additional housing at Fort Belvoir, several new parcels of land had been tentatively identified for study and possible future development to allow the construction of 998 new homes over and above the current inventory. These parcels and concepts were presented for exchange of ideas at the public and agency scoping meetings. After careful consideration of input received during the public and agency scoping process, the Army has decided to limit its proposed action to replacement and rehabilitation of the current housing stock (see Section 2.0).

Table 1-1 is a summary of concerns and comments expressed by people who attended the January 16, 2003, scoping meeting, with a reference to where these comments are addressed in this EA. Comments that addressed master planning issues beyond the RCI project or are not applicable to the current proposed action will not be addressed by this EA.

**TABLE 1-1**  
Summary of Public Scoping Comments

<b>Comments by Topic</b>	<b>Where Addressed in EA</b>
Environmental impacts overall and commitment to environmental stewardship (6)	Throughout
Retain baseball fields on Pole Road, maintain long-term relationship between Fort Belvoir and Woodlawn Little League (3)	Section 2.2.1.3 (Development Strategy for Existing and New Housing Villages) and 4.9.2.4 (Quality of Life)
Increasing traffic, mitigation measures for impact to off-post roads, associated air quality impact (6)	Section 4.10 Transportation, Section 4.3 Air Quality
Collect seasonal traffic data	Not applicable to the current proposed action (no appreciable population increase)
Need a public east-west connector road crossing North Post (Route 1 to Telegraph Road) and other local transportation improvements (3)	Not applicable to the current proposed action. See Master Plan EIS (expected in 2004).

**TABLE 1-1**  
Summary of Public Scoping Comments

<b>Comments by Topic</b>	<b>Where Addressed in EA</b>
Ultimate residential and nonresidential population of Fort Belvoir, impact on county sewage treatment plants and schools, both on-post and off-post; start planning to add another elementary school (8)	Not applicable to the current proposed action (no appreciable population increase). See Master Plan EIS (expected in 2004)
Support this project if it will improve living conditions (4)	Section 2.0 Proposed Action
Rossell Village should be demolished to improve living standards	Section 2.2.1.3 Development Strategy for Existing and New Housing Villages
Homes details: hardwood floors are impractical, need more storage	Details of housing design have been coordinated with family housing residents
Potential museum locations near Route 1 vs. potential housing areas (2)	Not applicable to the current proposed action (proposed parcel near Route 1 eliminated)
Access to remains of Belvoir Mansion	Section 4.8 Cultural Resources (public access will be maintained)
Environmental impact statement vs. environmental assessment, cumulative impacts (3)	Section 2.0 Proposed Action and Section 4.13. See also Master Plan EIS (expected in 2004)
Relationship between the NEPA process for RCI and updating the Master Plan (2)	Section 2.0 Proposed Action
Chesapeake Bay Act rules, Chesapeake Bay watershed impacts, impacts on streams (4)	Section 4.6 Water Resources
Consider regional context, clearing land in natural areas around Huntley Meadows and refuges (3)	Not applicable to the current proposed action (proposed undeveloped parcel near Huntley Meadows eliminated)
Homes for enlisted vs. officers, priority for those working on Fort Belvoir (reduce traffic)	Section 2.0 Proposed Action
Reuse building materials after demolition	Section 2.0 Proposed Action
Phasing and relocation of people (living in units to be demolished) off-post	Section 2.1 Residents are encouraged to contact RCI Office with questions.
Consider alternative of building on Engineer Proving Ground or off-post housing (2)	Section 3.0 Alternatives for off-post housing and siting considerations.
Need to brief neighboring communities (2)	See RCI point of contact below to request informational briefing.
Lifetime of new housing should be greater than 50 years	With continuous upgrading, new housing is expected to last longer than 50 years.
Public participation in ongoing Section 106 process (3)	Section 4.8 Cultural Resources
Request for status as consulting parties under Section 106 (3)	Section 4.8 Cultural Resources
Adverse impact, mitigation for demolishing T-400 (1920s wood-frame) houses (3)	Section 4.8 Cultural Resources and 4.13 Mitigation
Adverse impact, mitigation for demolishing T-400 (1920s wooden) houses (3)	Section 4.8 Cultural Resources and 4.13 Mitigation

**TABLE 1-1**  
Summary of Public Scoping Comments

<b>Comments by Topic</b>	<b>Where Addressed in EA</b>
Should preserve some units in Rossell Village for continuity (1)	Section 4.8 Cultural Resources
Impact to integrity on-post historic district; compatible design should differentiate between new and historic housing (2)	Section 4.8 Cultural Resources
Impact to off-post resources: Woodlawn Historic District, Grist Mill, Woodlawn Friends Meeting (2)	Section 4.8 Cultural Resources

The January 16, 2003, scoping meeting also began the public participation process under Section 106 of the National Historic Preservation Act (NHPA), serving to identify interested parties and begin the dialogue. On March 12, 2003, Fort Belvoir invited interested members of the public and other stakeholders to a meeting, to provide more detailed information and receive comments about effects on historic properties. A second meeting was held on May 13, 2003, to provide additional details and receive further comments. Only six individuals who were interested in historic properties attended the May 13 meeting, so they were able to have one-on-one conversations about the proposed action with Fort Belvoir and RCI representatives.

If an EA concludes that the proposed action would not result in significant environmental effects, the Army may issue a draft Finding of No Significant Impact (FONSI). The Army will observe a 30-day period during which time agencies and the public may submit comments on the proposed action, the EA, or the draft FONSI. Upon consideration of any comments received from the public or agencies during this 30-day comment period, the Army may approve the FONSI and implement the proposed action. If, however, during the development of the EA it is determined that significant effects would be likely, then the Army would issue a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS).

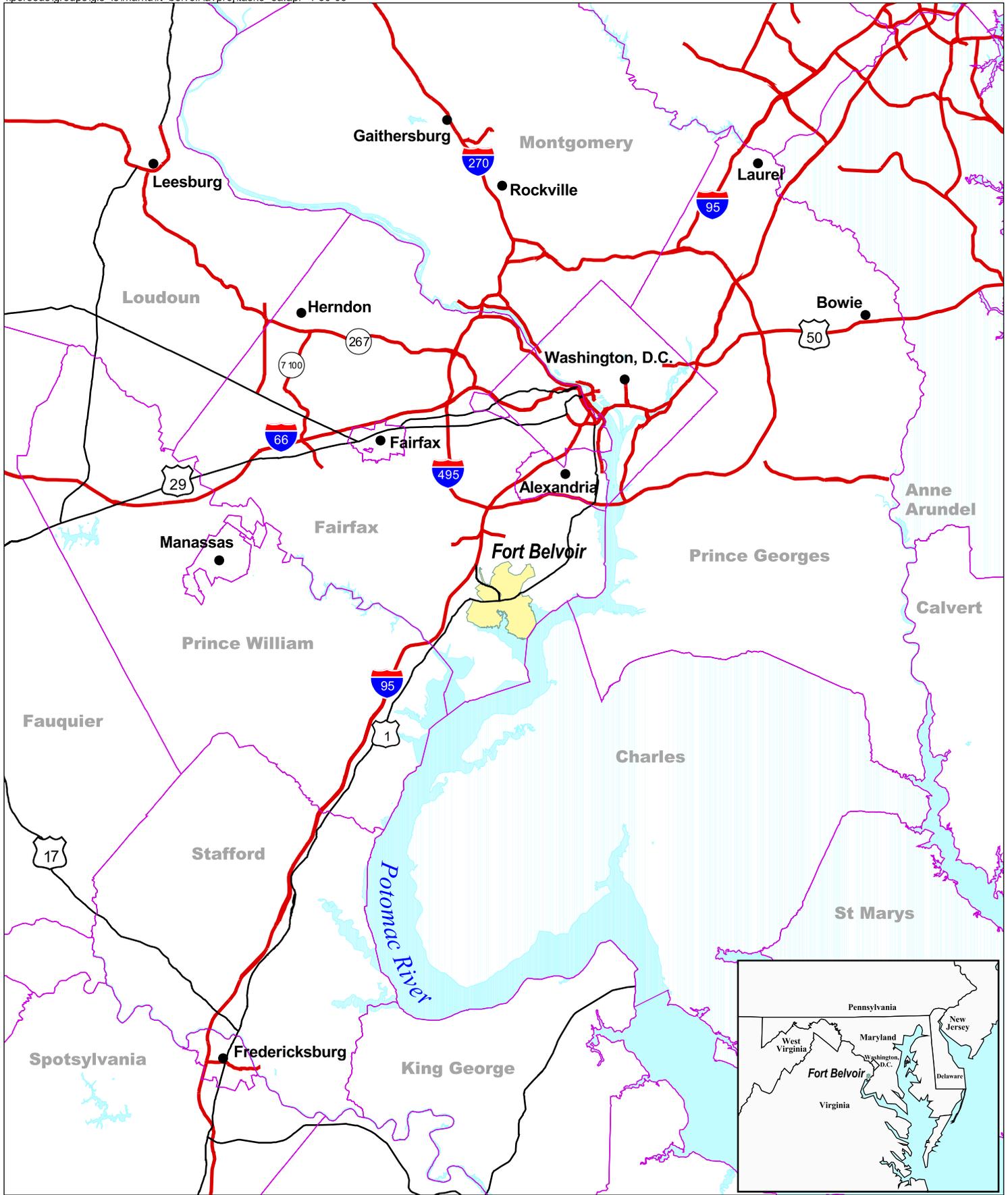
Public notice of the availability of the EA and draft FONSI for a 30-day review period will be made by advertisements published in local newspapers such as the Washington Post, Northern Virginia Journal and the Belvoir Eagle, by notices mailed to a list of interested organizations and individuals (see Section 9.0 Distribution List) and on the installation Website.

The EA and draft FONSI will be made available for public inspection in the John Marshall, Lorton, Sherwood Hall, and Kingstowne Branches of the Fairfax County Public Library; the Fort Belvoir RCI Office; and on the installation web site at <<http://www.belvoir.army.mil>>. Throughout this process, the public may obtain information on the status and progress of the proposed action and the EA, by contacting Mrs. Wilma Cooke, Fort Belvoir RCI Office.

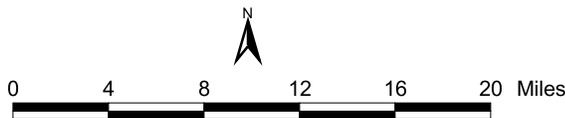
## 1.5 Framework for Analysis

A decision on whether to proceed with the proposed action rests on numerous factors, such as Fort Belvoir's mission requirements, schedule, availability of funding and environmental considerations. In addressing environmental considerations, the Army is guided by several relevant statutes (and implementing regulations) and Executive Orders that establish standards and provide guidance on environmental and natural resources management and planning.

These include, but are not limited to: Clean Air Act (CAA), Clean Water Act (CWA), Chesapeake Bay Act and Chesapeake Bay Agreement, Noise Control Act, Endangered Species Act, Migratory Bird Treaty, Farmland Protection Policy Act, National Historic Preservation Act, Archaeological Resources Protection Act, Resource Conservation and Recovery Act (RCRA), Toxic Substances Control Act, Federal Insecticide Fungicide and Rodenticide Act, Sikes Act, Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), Executive Order 12088 (Federal Compliance with Pollution Control Standards), Executive Order 13148 (Greening The Government), Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations), and Executive Order 13045 (Protection of Children from Environmental Health Risks and Safety Risks). Where useful to better understanding, key provisions of these statutes and Executive Orders are described in more detail in the text of the EA.

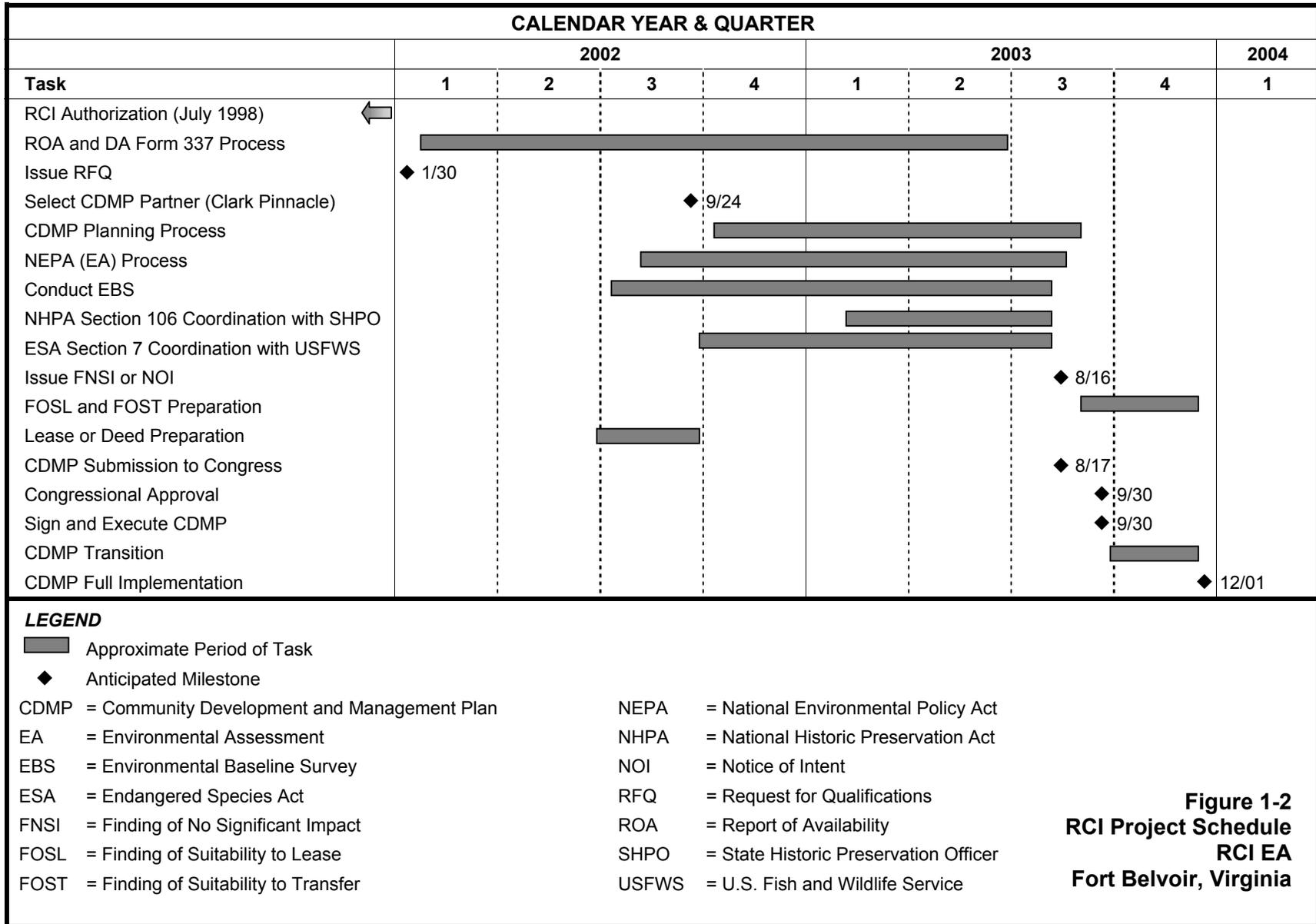


- City / County Boundaries
- Major Roads
- Fort Belvoir
- Water Bodies



**Figure 1-1**  
**Installation Location**  
**RCI EA**  
**Fort Belvoir, Virginia**





**Figure 1-2**  
**RCI Project Schedule**  
**RCI EA**  
**Fort Belvoir, Virginia**