

Final

**ENVIRONMENTAL ASSESSMENT
ESTABLISHMENT OF NORTHWEST REGIONAL
READINESS SUSTAINMENT COMMAND (NWRRC)
FORT MCCOY, WISCONSIN**



Prepared for:

Fort McCoy, WI

Prepared by:

**U.S Army Corps of Engineers
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July 2006



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FINDING OF NO SIGNIFICANT IMPACT
ESTABLISHMENT OF NORTHWEST REGIONAL READINESS SUSTAINMENT COMMAND
AT FORT MCCOY, WISCONSIN
BRAC 2005

The Defense Base Closure and Realignment (BRAC) Commission, in response to the Defense Base Closure and Realignment Act of 1990, as amended, recommended the establishment of the Northwest Regional Readiness Sustainment Command (NWRRSC) at Fort McCoy, Wisconsin. Establishment of the NWRRSC will involve realigning units from the Wichita Army Reserve Center and Fort Douglas, Utah. The 84th Army Reserve Regional Training Center (ARRTC) will be realigned from Fort McCoy to Fort Knox, Kentucky as part of the BRAC Commission's recommendations. The facility that the 84th ARRTC currently occupies will be used by Fort McCoy Garrison directorates once the realignment to Fort Knox is completed.

Pursuant to the Council on Environmental Quality regulations (40 Code of Federal Regulations Parts 1500-1508) implement the procedural provisions of the National Environmental Policy Act (NEPA), 42 U.S. Code Section 4321 et seq., as amended, and Army Regulations 200-2 (*Environmental Effects of Army Actions*), the U.S. Army Corps of Engineers, Mobile District, has prepared an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI), which addresses the proposed construction and operation of the NWRRSC at Fort McCoy.

Proposed Action

The proposed action for Fort McCoy is to disestablish the 88th Regional Readiness Command Headquarters (RRC) located at Fort Snelling, Minnesota and relocate to a newly activated NWRRSC at Fort McCoy. To accommodate this realignment, a new 100,000 square foot (SF) building, including an Organization Storage Unit, will need to be constructed. The new facility will provide administrative, assembly, educational, storage, and special training and support areas. The new NWRRSC is proposed to be constructed on a 7-acre forested site located near the intersection of South O Street and South 8th Avenue, east of the Main Gate.

Alternatives Considered

Two alternative sites were evaluated, Alternative Site 2 (Tarr Creek Site) and Alternative Site 3 (Marshalling Yard Site). Both of these sites have been previously disturbed and contain 7 to 9 acres, respectively. While the Tarr Creek Site provides sufficient open space, consideration of the creek's 100-year floodplain would limit the size and design of the facility to ensure compliance with Executive Order 11988 (*Floodplain Management*). Selection of the Marshalling Yard Site would require that the marshalling activities currently conducted at this site be relocated to another site approximately 500 yards to the northeast. Consequently, selection of the Alternative Site 3 would impact an additional 7 acres.

The No Action Alternative has also been carried forward throughout the EA to serve as a baseline for comparison to the other alternatives. No other alternatives, including scheduling, off-post leasing, and renovations of other buildings on-post, were considered viable.

Factors Considered In Determining That No Environmental Impact Statement is Required

Implementation of the Propose Action at the preferred location would result in minor, permanent effects to vegetation, wildlife, soils aesthetics, and land use. The Proposed Action would cause the permanent conversion of 7 acres of forest to hard surfaces and buildings and remove this land from further biological productivity and other uses. The loss of 7 acres of forest would be insignificant compared to the remaining forest land within and surrounding Fort McCoy.

Temporary increases vehicle traffic would be expected during the construction and in the short period during which both the NWRSC and the 84th ARRTC are collocated on post. Traffic congestion on the east side of the post, near the Main Gate, would be increased, especially during peak exit hours. The operation of the NWRSC would also likely result in slight long-term increases in traffic near this intersection.

In addition, temporary and minor adverse effects to air quality, noise, utilities, and water resources would occur during the construction period. No violations of the installation's air or water quality permits would be expected; BMPs would be implemented to ensure storm water during and after construction is controlled and downstream sedimentation is either eliminated or is negligible.

No impacts would occur to Federal or state protected species, cultural resources, or hazardous waste facilities. Slight benefits to local and regional employment and personal income would be expected during the construction; however, due to the reduction in military personnel, long-term insignificant adverse impacts to the region's economy would occur.

The cumulative effects of the proposed action and other planned or reasonably foreseeable projects on Fort McCoy would also be considered insignificant. The total amount of land that would be impacted by the proposed action, on-going projects and future projects would be less than 200 acres and would occur primarily within previously disturbed areas. Local expenditures required by the construction projects would result in moderate beneficial impacts to the ROI within the next 5 years.

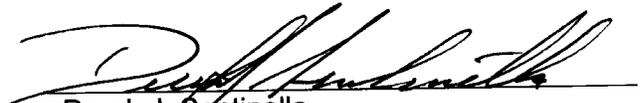
Public Comment

The EA and draft FONSI were released to the public for 30 days on 17 August 2006. Notices of Availability were published in the *Tomah Journal*, *Sparta Herald* and *LaCrosse Tribune*. The EA and draft FONSI were also available for review at local public libraries and on the Internet at: http://www.hqda.army.mil/acsim/brac/env_ea_review.htm. Written comments were accepted through 19 September 2006; however, no comments were received.

Conclusions

Based on information gathered and presented in the EA, it has been determined that the Proposed Action would have no significant direct, indirect or cumulative adverse impacts on the quality of the natural and human environment. Consequently, an Environmental Impact Statement is not required and will not be prepared.

10 Oct 2006
Date


Derek J. Sentinella
Colonel, U.S. Army
Commanding
Fort McCoy, WI

**ENVIRONMENTAL ASSESSMENT
ESTABLISHMENT OF
NORTHWEST REGIONAL READINESS SUSTAINMENT COMMAND (NWRRC)
FORT MCCOY, WISCONSIN
BRAC 2005**

Prepared by:

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LEAD AGENCY: Mobile District, U.S. Army Corps of Engineers

TITLE OF PROPOSED ACTION: Environmental Assessment for the Establishment of Northwest Regional Readiness Sustainment Command (NWRRSC), Fort McCoy, Wisconsin

AFFECTED JURISDICTION: Monroe County, Wisconsin

PREPARED BY: Peter F. Taylor, Jr., U.S. Army Corps of Engineers, Mobile District, Commanding

TECHNICAL ASSISTANCE FROM: Gulf South Research Corporation

APPROVED BY: Derek J. Sentinella, Colonel, Fort McCoy, WI, Commanding

ABSTRACT: This Environmental Assessment (EA) addresses the potential effects of the proposed construction and operation of the Northwest Regional Readiness Sustainment Command (NWRRSC) at Fort McCoy, Wisconsin, as proposed by the Base Closure and Realignment Commission's recommendation. The proposed action would result in a net reduction of 250 to 300 military personnel and net increase in 50 to 60 civil or private contract personnel. To accommodate the proposed NWRRSC, a new 100,000 square foot building is proposed to be constructed. The construction would permanently convert approximate 7 acres of forest to hard surfaces. No permanent impacts to prime or unique farmland soils, protected species, or cultural resources would occur as a result of the proposed action. Temporary and insignificant impacts to air quality, noise, water quality due to erosion/sedimentation, and traffic patterns would occur during construction activities. Insignificant, long-term adverse impacts would occur to the socioeconomic resources as a result of the net decrease in personnel. Two other sites were evaluated during the preparation of the EA.

REVIEW PERIOD: The EA and draft Finding of No Significant Impact are available for review for a period of 30 days. Copies of this document can be obtained from Mr. Alan Balliet Chief, Environmental Branch, Directorate of Support Services ATTN: IMNW-MCY-SSP 2171, S. 8th Ave. Fort McCoy, WI 54656-5136 or by calling him at (608) 388-4776. Copies are also available for review at the Tomah Public Library, 716 Superior Avenue, Tomah, Wisconsin 54660 and the Sparta Free Library, 124 West Main Street, Sparta, Wisconsin 54656. It will also be available for review and downloading from the Fort McCoy's Internet web page at <http://www.mccoy.army.mil/ReadingRoom/>, as well as BRAC's website at http://www.hqda.army.mil/acsim/brac/env_ea_review.htm. Written comments must be submitted to Mr. Balliet no later than 19 September 2006.

**EXECUTIVE SUMMARY
FINAL ENVIRONMENTAL ASSESSMENT
ESTABLISHMENT OF
NORTHWEST REGIONAL READINESS SUSTAINMENT COMMAND (NWRRC)
FORT MCCOY, WISCONSIN**

Introduction: In accordance with the National Environmental Policy Act of 1969 (NEPA), the U.S. Army Corps of Engineers (USACE), Mobile/Savannah District has prepared this Environmental Assessment (EA) for the establishment of the Northwest Regional Readiness Sustainment Command (NWRRC) facility at Fort McCoy, Wisconsin. This EA discusses the potential environmental effects of the proposed construction and operation of the NWRRC on the human and natural environment at and surrounding Fort McCoy.

Background/Setting: Fort McCoy encompasses approximately 60,000 acres in Monroe County, Wisconsin. Fort McCoy contains various training areas, drop zones, airfields, recreation/open areas, maintenance facilities, classroom and administrative facilities, housing and other cantonment structures. Fort McCoy was originally established in 1909 and has served as a military installation since then.

Proposed Action: The establishment of the NWRRC at Fort McCoy is required by the Defense Base Closure and Realignment Commission, acting in accordance with the Defense Base Closure and Realignment Act of 1990, as amended, and the recommendations made by the Defense Base Closure and Realignment Commission. Establishment of the NWRRC will involve realigning units from the Wichita Army Reserve Center and Fort Douglas, Utah. The 84th Army Reserve Regional Training Center (ARRTC) will be realigned from Fort McCoy to Fort Knox, Kentucky as part of the BRAC Commission's recommendations. The facility that the 84th ARRTC currently occupies will be used by Fort McCoy Garrison directorates once the realignment to Fort Knox is completed. Thus, a new facility is required to accommodate the NWRRC.

The new facility would be approximately 100,000 square feet with appurtenant parking and storage facilities. The entire facility would require approximately 7 acres and be constructed within the cantonment area of Fort McCoy. No additional expansion to or demands on training areas or airspace would be required for the proposed action. No additional weapons systems would be associated with the establishment or operation of the NWRRC.

Construction and operation of the NWRRC at Fort McCoy requires compliance with the Federal regulations and Executive Orders (EOs) specified in Table ES-1, below.

Table ES-1. Summary of Relevant Regulations Including Potential Permits or Licensing Requirements

Issue	Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Status of Compliance with Relevant Laws and Regulations
FEDERAL				
Sound/ Noise	Noise Control Act of 1972 (42 USC 4901 et seq.), as amended by Quiet Communities of 1978 (P.L. 95-609)	United States Environmental Protection Agency (EPA)	Compliance with surface carrier noise emissions	Full compliance will be achieved upon implementation of construction activities.
Air	Clean Air Act and amendments of 1990 (42 USC 7401-7671q) 40 CFR 50, 52, 93.153(b)	EPA	Compliance with National Ambient Air Quality Standards (NAAQS) and emission limits and/or reduction measures	Full compliance; emissions will be below <i>de minimus</i> thresholds and Monroe County is in attainment.
Water	Clean Water Act of 1977 (33 USC 1342) 40 CFR 122	EPA/Wisconsin Department of Natural Resources (WDNR)	Section 402(b) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges for Construction Activities-Storm Water Pollution Prevention Plan (SWPPP); authority delegated to WDNR	SWPPP and Notice of Intent will be prepared prior to construction. Full compliance will be achieved prior to implementation of construction activities.
	Executive Order 11988 (Floodplain Management), as amended by Executive Order 12608	Water Resources Council, Federal Emergency Management Agency (FEMA), CEQ	Compliance	Full compliance if Preferred Alternative Site is selected.
	Executive Order 11990 (Protection of Wetlands), as amended by Executive Order 12608	U.S. Army Corps of Engineers (USACE) and U.S. Fish and Wildlife Service (USFWS)	Compliance	Full compliance
	Clean Water Act of 1977 (33 USC 1341 et seq.)	USACE (and WDNR)	Section 401/404 Permit	Wetlands will be avoided; no permit required.
	Coastal Zone Management Act of 1972 (16 USC 1456[c]) Section 307	USACE	Compliance	Fort McCoy is not within the coastal zone.
Soils	Resource Conservation and Recovery Act of 1976 (42 USC 6901-6992k), as amended by Hazardous and Solid Waste Amendments of 1984 (P.L. 98-616; 98 Stat. 3221)	EPA	Proper management, and in some cases, permit for remediation	Full compliance will be achieved prior to implementation of construction activities.

Table ES-1, continued

Issue	Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Status of Compliance with Relevant Laws and Regulations
Soils (cont'd)	Comprehensive, Environmental Response, Compensation, Liability Act of 1980 (42 USC 9601-9675), as amended by Emergency Planning and Community Right-To-Know-Act of 1986 (42 USC 11001 et seq.) Release or threatened release of a hazardous substance	EPA	Development of emergency response plans, notification, and cleanup	Full compliance.
	Farmland Protection Policy Act of 1981 (7 USC 4201 et seq.) 7 CFR 657-658 Prime and unique farmlands	Natural Resource Conservation Service (NRCS)	NRCS determination via Form AD-1006	Full compliance since no prime farmland soils occur at any of the proposed sites.
Natural Resources	Endangered Species Act of 1973, as amended (16 USC 1531-1544)	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, develop mitigation measures	Full compliance since no protected species would be impacted.
	Migratory Bird Treaty Act of 1918	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, develop mitigation measures	Full compliance will be achieved upon implementation of construction activities. Bird surveys will be required if initial grubbing and clearing can not avoid nesting season.
	Bald and Golden Eagle Act of 1940, as amended	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, obtain permit	No effects to bald or golden eagles; full compliance.
Health and Safety	Occupational Safety and Health Act of 1970	Occupational Safety and Health Administration (OSHA)	Compliance with guidelines including Material Safety Data Sheets	Full compliance will be achieved upon implementation of construction activities.
Cultural/ Archaeological	National Historic Preservation Act of 1966	Advisory Council on Historic Preservation through State Historic Preservation Officer	Section 106 Consultation	Section 106 evaluation in process; full compliance will be achieved prior to implementation of construction activities.
	Archaeological Resources Protection Act of 1979	Affected land-managing agency	Permits to survey and excavate/ remove archaeological resources on Federal lands; Native American tribes with interests in resources must be consulted prior to issue of permits	Full compliance.

Table ES-1, continued

Issue	Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Status of Compliance with Relevant Laws and Regulations
Cultural/ Archaeological (cont'd)	EO 13175 (<i>Consultation and Coordination with Indian Tribal Governments</i>)	Bureau of Indian Affairs	Coordinate directly with Tribes claiming cultural affinity to project areas	Full compliance; coordination letter sent to Ho-Chunk Nation.
Social/ Economic	Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) of 1994	EPA	Compliance	Full compliance since no minority or low income populations would be affected.
	EO 13045 (<i>Protection of Children from Environmental Health Risks and Safety Risks</i>)	EPA	Compliance	Full compliance since no children would be exposed to the construction activities.
	EO 13101 (<i>Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition</i>)	EPA	Compliance	Full compliance
	EO 13123 (<i>Greening the Government Through Efficient Energy Management</i>)	EPA	Compliance	Full compliance
	EO 13148 (<i>Greening the Government Through Leadership in Environmental Management</i>)	EPA	Compliance	Full compliance

Alternatives: Three different alternative sites were evaluated in the EA. The preferred site is located south of South 8th Avenue, east of South O Street and north of Wisconsin State Highway 21 in a 25-acre forested parcel. Alternative Site 2 is located along the south bank of Tarr Creek, north of South 8th Avenue, and west of Building 2168. This site is open grassland and provides 7 acres of usable area. The third alternative site is the extant Marshalling Yard, which is located along Wisconsin State Highway 21 immediately east of the Sparta Gate. Most of this area is paved or covered with gravel. Selection of this site would require that the Marshalling Yard be relocated to the Marshalling Yard Relocation Area, located east northeast of the current Marshalling Yard.

No other alternatives relative to scheduling, using other existing facilities, or leasing space off-post are viable and, thus, were not addressed in the EA.

Environmental Consequences: Construction of the NWRRC facility at the preferred location would permanently convert approximately 7 acres of forest to impervious surfaces. Construction would cause temporary and insignificant increases of noise, air emissions, traffic, and soil erosion/sedimentation. Ambient conditions would return upon completion of the construction activities, with the exception of traffic. Increased traffic would remain an issue until realignment of the 84th ARRTC to Fort Knox is complete, since both the NWRRC and the ARRTC would operate on base, in the same general vicinity, for approximately 18 months. Socioeconomic resources would incur adverse, insignificant long-term impacts by the net

reduction of military personnel employed at the post and the concomitant loss in income and taxes. No impacts would occur to cultural resources, protected species, prime farmland soils, or water quality or supply. Insignificant impacts to wildlife habitat and populations, aesthetic and visual resources, and utilities would occur as a result of the establishment of the NWRRSC at the preferred site.

Impacts to these resources would be similar if either of the other two alternative sites were selected. The construction of the NWRRSC at either alternate site would result in temporary increases in noise, air quality, traffic congestion, and potential for soil erosion and sedimentation. The socioeconomic impacts would be the same if either alternate site were selected. Selection of the Alternative Site 3 (Marshalling Yard) would result in slightly greater impacts to all resources, since the Marshalling Yard Relocation Area would also have to be developed to replace the marshalling activities that occur at the extant Marshalling Yard. Portions of both the Alternative Site 2 and Alternative Site 3 are contained within the 100-year floodplains of Tarr and Stillwell creeks. Therefore, designs of the NWRRSC at either of these sites would need to avoid development within the 100-year floodplain or demonstrate that no practicable alternative exists to be in compliance with EO 11988.

Mitigation Measures: All temporarily disturbed sites should be re-seeded as soon as practicable after completion of the construction activities to control erosion and sedimentation. Native vegetation seeds should be used for re-seeding any disturbed area that would not be landscaped and routinely maintained, in accordance with Section 7(c)(1) of the Endangered Species Act. A Storm Water Pollution Prevention Plan (SWPPP) and Notice of Intent will be needed to be prepared and submitted prior to construction. The SWPPP will identify best management practices (BMP) to be implemented for erosion and sedimentation control during construction. If straw bales are used, weed seed-free straw should be used to avoid introduction or expansion of invasive or noxious weeds.

Any merchantable timber occurring on the preferred location would be harvested for sale or a deposit to Fort McCoy's forestry account would be made, in accordance with Army Regulation 200-3. Cutting of oak trees between April 15 and August 1 would be avoided to the extent practicable to reduce the potential of oak wilt.

Wetting solutions, including water, should be applied to disturbed soils within the construction site to control fugitive dust. All construction equipment and material should be properly maintained and stored to reduce air emissions and avoid potential spills of hazardous materials.

If the breeding/nesting season (May through August) for migratory birds can not be avoided during the initial grubbing and clearing of the site, a survey for breeding pairs and nests should be conducted. Results of the surveys shall be submitted to the U.S. Fish and Wildlife Service, in accordance with the Migratory Bird Treaty Act.

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SECTION 1.0
PURPOSE, NEED, AND SCOPE



**Environmental Assessment
Realignment of
Northwest Regional Readiness Sustainment Command (NWRRC)
Fort McCoy, Wisconsin**

1.0 PURPOSE, NEED, AND SCOPE

1.1 Introduction

On September 8, 2005, the Defense Base Closure and Realignment (BRAC) Commission recommended that certain realignment actions occur at Fort McCoy, Wisconsin. These recommendations were approved by the President on September 23, 2005, and forwarded to Congress. The Congress did not alter any of the BRAC Commission's recommendations, and on November 9, 2005, the recommendations became law. The BRAC Commission recommendations must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended.

The BRAC Commission recommended the relocation of an Army Reserve Regional Training Center (ARRTC) from Fort McCoy, Wisconsin to Fort Knox, Kentucky; the establishment of the Northwest Regional Readiness Sustainment Command (NWRRC) Headquarters at Fort McCoy and realigning both the Wichita United States (U.S.) Army Reserve Center and Fort Douglas, Utah by establishing a Sustainment Unit of Action at each in support of the NWRRC at Fort McCoy, Wisconsin. To enable implementation of this recommendation, the Army proposes to provide necessary facilities to support the changes in force structure. This environmental assessment (EA) analyzes and documents the potential environmental effects associated with the Army's proposed action at Fort McCoy. Details on the proposed action are presented later in Section 2.

1.2 Purpose and Need

The purpose of the proposed action is to implement the BRAC Commission's recommendation pertaining to the establishment of the NWRRC Headquarters at Fort McCoy. The need for the proposed action is to improve the ability of the U.S. to respond rapidly to challenges of the 21st Century. The Army is legally bound to defend the U.S. and its territories, support National policies and objectives, and defeat other countries that are responsible for aggression that endangers the peace and security of the U.S. To carry out these tasks, the Army must adapt to changing world conditions and must improve its capabilities to respond to a variety of circumstances across the full spectrum of military operations. The following discusses four major initiatives that contribute to the Army's need for the proposed action.

1.2.1 Base Realignment and Closure

In previous rounds of BRAC, the explicit goal was to save money and downsize the military to reap a "peace dividend." In the 2005 round of BRAC, the Department of Defense (DoD) sought to reorganize its installation infrastructure to most efficiently support its forces, increase operational readiness and facilitate new ways of doing business. Thus, BRAC represents more than cost savings. It supports advancing the goals of transformation, improving military capabilities, and enhancing military value. The Army needs to carry out the BRAC recommendations at Fort McCoy to achieve the objectives for which Congress established the BRAC process.

1.2.2 Army Transformation and the Army Modular Force

On October 12, 1999, the Secretary of the Army and the Chief of Staff articulated a vision about people, readiness, and transformation of the Army to meet challenges emerging in the 21st Century and the need to be able to respond more rapidly to different types of operations requiring military action. The strategic significance of land forces continues to lie in the Army's ability to fight and win the Nation's wars and in providing options to shape the global environment to the benefit of the U.S. and its allies. Transformation responds to the Army's need to become more strategically responsive and dominant at every point on the spectrum of operations. This EA evaluates a proposed action that comports with the transformation process, which is designed to provide the U.S. with combat forces that are more responsive, deployable, agile, versatile, lethal, survivable, and sustainable.

1.2.3 Integrated Global Presence and Basing Strategy (IGPBS)

At the request of the Chairman of the Joint Chiefs of Staff, combatant commanders submitted a series of recommendations for overseas basing plans for their respective areas of responsibility. The recommendations were part of an interagency assessment of the DoD's long-term overseas force projection and basing needs. The assessment resulted in a series of recommendations known as the IGPBS, which is the blueprint outlining the size, character, and location of long-term overseas force presence. On the basis of the IGPBS results, the Secretary of Defense announced that some forces currently based overseas would return to the U.S. over a period of years. The 2005 BRAC recommendations take into account, and adopt some of the basing recommendations of the IGPBS.

1.2.4 Installation Sustainability

On October 1, 2004, the Secretary of the Army and the Chief of Staff issued *The Army Strategy for the Environment*. The strategy focuses on the interrelationships of mission, environment, and community. A sustainable installation simultaneously meets current and future mission requirements, safeguards human health, improves quality of life, and enhances the natural environment. A sustained natural environment is necessary to allow the Army to train and maintain military readiness.

1.3 Scope

This EA has been developed in accordance with the National Environmental Policy Act (NEPA) of 1969, the President's Council on Environmental Quality (CEQ) *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*, (40 Code of Federal Regulations [CFR] Parts 1500–1508), and the Army's environmental implementing regulations, *Environmental Analysis of Army Actions* (32 CFR Part 651). Its purpose is to inform decision makers and the public of the likely environmental consequences of the proposed action and alternatives.

This EA identifies, documents, and evaluates environmental effects of the proposed realignment of the NWRRC to Fort McCoy, Wisconsin, including the construction and operation of the required support facilities. Fort McCoy is located in Monroe County, northeast of Sparta and encompasses approximately 60,000 acres, including training ranges, cantonment areas, and recreational areas (Figure 1-1). Although the 84th ARRTC will be realigned from Fort McCoy to Fort Knox, that action is not addressed herein, except where the operations of the NWRRC and the 84th ARRTC would impact resources during the time they are both on post. An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, historians, and military technicians has analyzed the proposed action and alternatives in light of existing conditions and has identified relevant beneficial and adverse effects associated with the action.

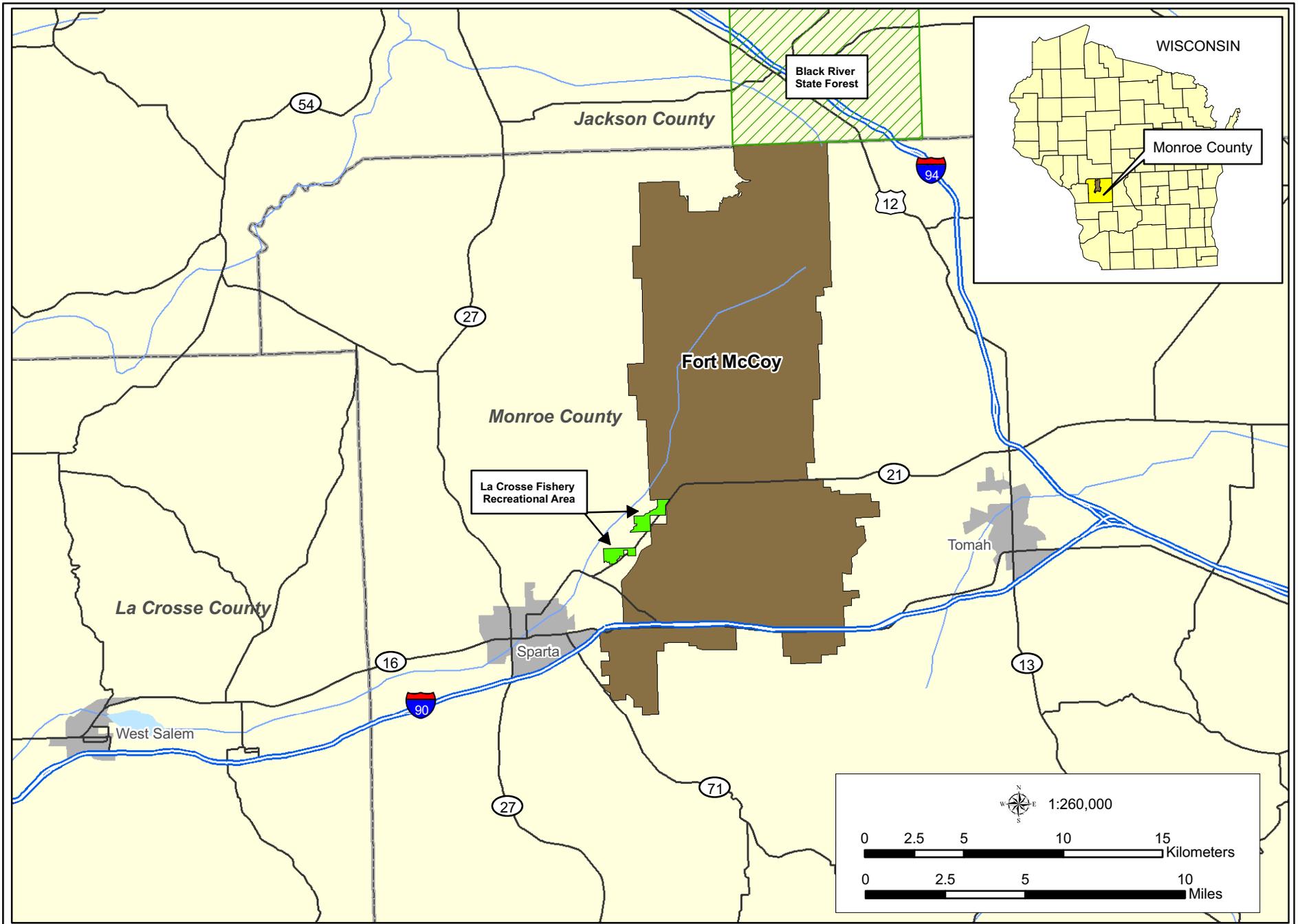


Figure 1-1: Fort McCoy Vicinity Map



The Defense Base Closure and Realignment Act of 1990 specifies that NEPA does not apply to actions of the President, the Commission, or the DoD, except “(i) during the process of property disposal, and (ii) during the process of relocating functions from a military installation being closed or realigned to another military installation after the receiving installation has been selected but before the functions are relocated” (Sec. 2905(c)(2)(A), Public Law 101-510, as amended). The law further specifies that in applying the provisions of NEPA to the process, the Secretary of Defense and the secretaries of the military departments concerned do not have to consider “(i) the need for closing or realigning the military installation which has been recommended for closure or realignment by the Commission, (ii) the need for transferring functions to any military installation which has been selected as the receiving installation, or (iii) military installations alternative to those recommended or selected (Sec. 2905(c)(2)(B)).” The Commission’s deliberation and decision, as well as the need for closing or realigning a military installation, are exempt from NEPA. Accordingly, this EA does not address the need for realignment.

1.4 Public Involvement

The Army 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.

Public participation opportunities with respect to this EA and decision-making on the proposed action are guided by 32 CFR Part 651. The EA has been made available to the public for 30 days, along with a draft Finding of No Significant Impact (FONSI). At the end of the 30-day public review period, the Army will consider any comments submitted by individuals, agencies, or organizations on the proposed action, the EA, or draft FONSI. As appropriate, the Army may then execute the FONSI and proceed with implementation of the proposed action. If it is determined prior to issuance of a final FONSI that implementation of the proposed action would result in significant impacts, the Army will publish in the *Federal Register* a notice of intent to prepare an environmental impact statement, commit to mitigation actions sufficient to reduce impacts below significant levels, or not take the action.

Throughout this process, the public may obtain information on the status and progress of the proposed action and the EA through the Fort McCoy Public Affairs Office (PAO) by calling Ms. Linda Fournier, at (608) 388-2407.

1.5 Regulatory Framework

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

- Clean Air Act
- Clean Water Act
- Noise Control Act
- Endangered Species Act
- National Historic Preservation Act
- Archaeological Resources Protection Act
- Resource Conservation and Recovery Act

- Toxic Substances Control Act
- EO 11988 (*Floodplain Management*)
- EO 11990 (*Protection of Wetlands*)
- EO 12088 (*Federal Compliance with Pollution Control Standards*)
- EO 12608 (*Elimination of Unnecessary Executive Orders and Technical Amendments*)
- EO 12580 (*Superfund Implementation*)
- EO 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*)
- EO 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*)
- EO 13101 (*Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition*)
- EO 13123 (*Greening the Government Through Efficient Energy Management*)
- EO 13148 (*Greening the Government Through Leadership in Environmental Management*)
- EO 13175 (*Consultation and Coordination with Indian Tribal Governments*)
- EO 13186 (*Responsibilities of Federal Agencies to Protect Migratory Birds*)
- Army Regulation (AR) 200-1: Environmental Protection and Enhancement
- AR 200-2: Environmental Effects of Army Actions
- AR 200-3: Natural Resources—Land, Forest, and Wildlife Management
- AR 200-4: Cultural Resources Management

These authorities are addressed in various sections throughout this EA when relevant to particular environmental resources and conditions.

SECTION 2.0
PROPOSED ACTION

2.0 PROPOSED ACTION

2.1 Introduction

The BRAC Commission approved the following DoD recommendation concerning Fort McCoy:

“Realign Fort Snelling, MN by disestablishing the 88th Regional Readiness Command and establishing the Northwest Regional Readiness Command Headquarters at Fort McCoy, WI. Realign the Wichita US Army Reserve Center by disestablishing the 89th Regional Readiness Command and establishing a Sustainment Unit of Action at the Wichita Army Reserve Center in support of the Northwest Regional Readiness Command at Fort McCoy, WI. Realign Fort Douglas, UT by disestablishing the 96th Regional Readiness Command and establishing a Sustainment Unit of Action in support of the Northwest Regional Readiness Command at Fort McCoy, WI.”

Therefore, the proposed action for Fort McCoy is to disestablish the 88th Regional Readiness Command Headquarters (RRC) located at Fort Snelling, Minnesota and relocate to a newly activated NWRRC at Fort McCoy, Wisconsin. Although, as mentioned previously, the 84th RRC will be realigned from Fort McCoy to Fort Knox, that action is not part of the proposed action and, thus, is not addressed herein.

2.2 Proposed Implementation

To satisfy the realignment recommendation, a new 300- to 400-member NWRRC facility would be required at Fort McCoy. The new facility would include administrative, assembly, educational, storage, and special training and support areas. Buildings would be of permanent construction and contain approximately 100,000 square feet (SF) with associated parking areas, sidewalks and landscaping. A 1,217 SF storage facility would also be constructed (Table 2-1). All other appurtenant infrastructure (e.g., plumbing, electrical systems, HVAC systems, and Anti-Terrorism/Force Protection [AT/FP] systems) would also be provided.

Table 2-1. Proposed Construction Projects

Project No.	Facility	Square Feet (approximate)
64750	Armed Forces Reserve Center	100,000
64750	Organizational Unit Storage	1,217
	Total	101,217

Although several sites were evaluated as potential locations for the new NWRRC, the preferred location is located south of Building 0050, east of South O Street and immediately north of the Wisconsin State Highway 21 (Figure 2-1). This site is a 25-acre forested parcel (Photograph 1); however, the total area expected to be disturbed by the facility is approximately 7 acres.



Photograph 1. Preferred Site looking northeast

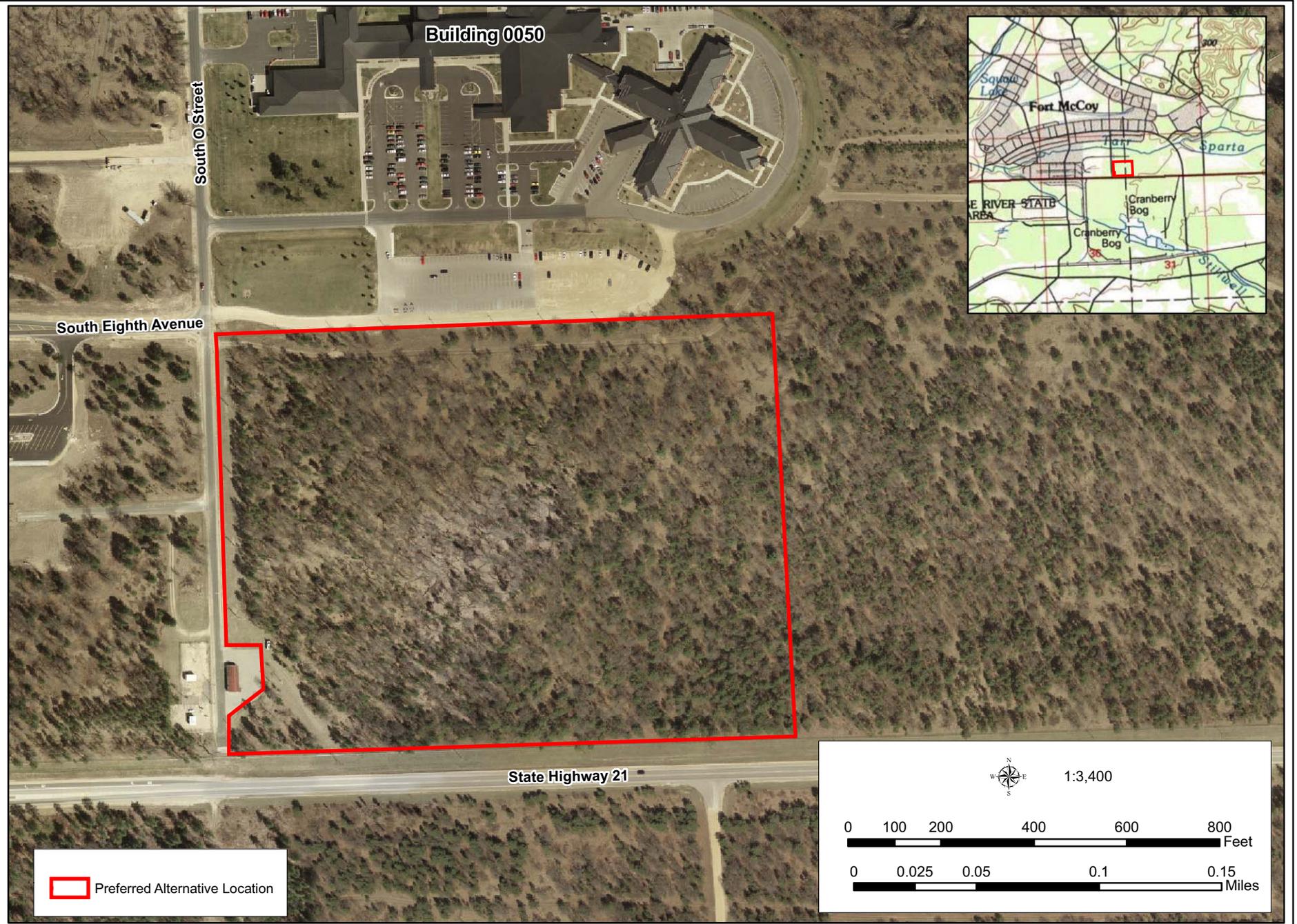


Figure 2-1: Preferred Location for NWRSC Facility



2.2.1 Force Structure

The recommendation would transform Army Reserve Command and Control in the northwest by the establishment of an Army Reserve Center to support the NWRRSC at Fort McCoy. As a result of this force structure change, coupled with the move of the 84th ARRTC from Fort McCoy to Fort Knox, there would be a net reduction of 240 to 300 active duty personnel and a net addition of 50 to 60 civilians at Fort McCoy.

2.2.2 Garrison Facilities

Due to the net loss of military personnel and total personnel (military and civilians) assigned to Fort McCoy, as described above, no additional family housing would be required as a result of this action. Eighty housing units have been constructed near Tomah, approximately 5 miles from Fort McCoy, and are all presently occupied. In addition, 124 family housing units are currently scheduled for construction on post. There would be a deficit of housing on post; however, an excess of vacant units (for rental, lease or purchase) is available in close proximity to the installation. No demolition would be required as a result of the proposed action.

Fort McCoy is drastically deficient in adequate facilities for administrative and schoolhouse activities. Building 0050, which is currently occupied by the 84th ARRTC, is perfectly suited to resolve this deficiency. Implementation of the proposed BRAC actions would allow Fort McCoy to use Building 0050 for Garrison directorates once the 84th ARRTC is realigned to Fort Knox, Kentucky. The Garrison directorates are currently in World War II vintage wood buildings and moving them into Building 0050 would significantly improve their operation. Also, moving these activities into Building 0050 would make the World War II wood buildings, which are currently occupied by the Garrison activities, available for Extended Combat Training (ECT) and mobilization activities, increasing Fort McCoy's capacity to conduct its primary missions as a Power Projection Platform and a primary training installation for ECT and Battle Assemblies. Thus, Building 0050 is not available for use by the NWRRSC.

2.2.3 Training Facilities

There would be no change to range size or operations as a result of the proposed action.

2.2.4 Weapon Systems and Vehicles

There would be no change to the type, number and frequency of weapon systems used at Fort McCoy as a result of the proposed action.

2.2.5 Schedule

Under the BRAC law, the Army must initiate all realignments no later than September 15, 2007, and complete all realignments no later than September 15, 2011. Implementation of the proposed action would occur over a span of approximately 3 years (Table 2-2). Construction of the proposed facility is anticipated to begin the last quarter of Fiscal Year (FY) 2006 and be completed in the third quarter of FY 2007. Realignment of the NWRRSC troops and personnel would be completed immediately thereafter. Realignment of the 84th ARRTC to Fort Knox would be accomplished over a 1-year period, beginning in January 2008. Consequently, there would be an overlap of the units at Fort McCoy until the realignment of the 84th ARRTC is complete.

Table 2-2. Tentative Dates for Completion of Major Items Associated with Realignment at Fort McCoy

Action	Tentative Start Date	Tentative Completion Date
Design of New Facility	March 2006	August 2006
Construction of New Facility	September 2006	June 2007
Realignment of NWRRSC HQ to Fort McCoy	July 2007	July 2008
Realignment of 84 th ARRTC to Fort Knox	January 2008	December 2008

SECTION 3.0
ALTERNATIVES

3.0 ALTERNATIVES

3.1 Introduction

The following discussion identifies alternatives considered by the Army and identifies whether they are feasible and, hence, subject to detailed evaluation in this EA. Alternatives to the proposed action have been examined according to three variables: means to physically accommodate realigned units, siting of new construction, and schedule. This section presents the Army's development of alternatives and addresses alternatives available for the proposed action. The section also describes alternatives that were eliminated from detailed analyses.

3.2 No Action Alternative

CEQ regulations require inclusion of the No Action Alternative. Under the No Action Alternative, the NWRRC would not be established at Fort McCoy. However, since this realignment has been mandated by Congress and the President, the No Action Alternative will serve only as a baseline against which the impacts of the proposed action and alternatives can be evaluated.

3.3 Siting Alternatives

General siting criteria established by the Army include consideration of compatibility between the functions to be performed and the installation land use designation for the site, adequacy of the site for the function required, proximity to related activities, distance from incompatible activities, availability and capacity of roads, efficient use of property, development density, potential future mission requirements, and special site characteristics, including environmental incompatibilities.

Specific siting criteria include consideration of location of the workforce and efficient, streamlined management of functions. Collocation of similar types of functions, as opposed to dispersion, permits more efficient use of equipment, vehicles, and other assets.

In addition to the preferred location, two other sites are considered as viable locations for the proposed construction and operation of the NWRRC facility. All of the proposed locations for new construction, shown in Figure 3-1, conform to the Fort McCoy Real Property Master Plan, which seeks to generally collocate like uses and to separate incompatible uses. This project has been coordinated with the installation physical security plan and all physical security measures would be included. All required AT/FP measures would also be included. While numerous variations of the present proposal for siting of the facility could be developed, the locations shown in Figure 3-1 reflect a sound solution that are compatible with the installation's master plan, environmental considerations, and the NWRRC's needs. Other sites on the post might result in different footprints or schemes, but they would not be better than those sites selected for evaluation. Accordingly, additional alternatives for siting of the facility are not evaluated in detail in this EA.

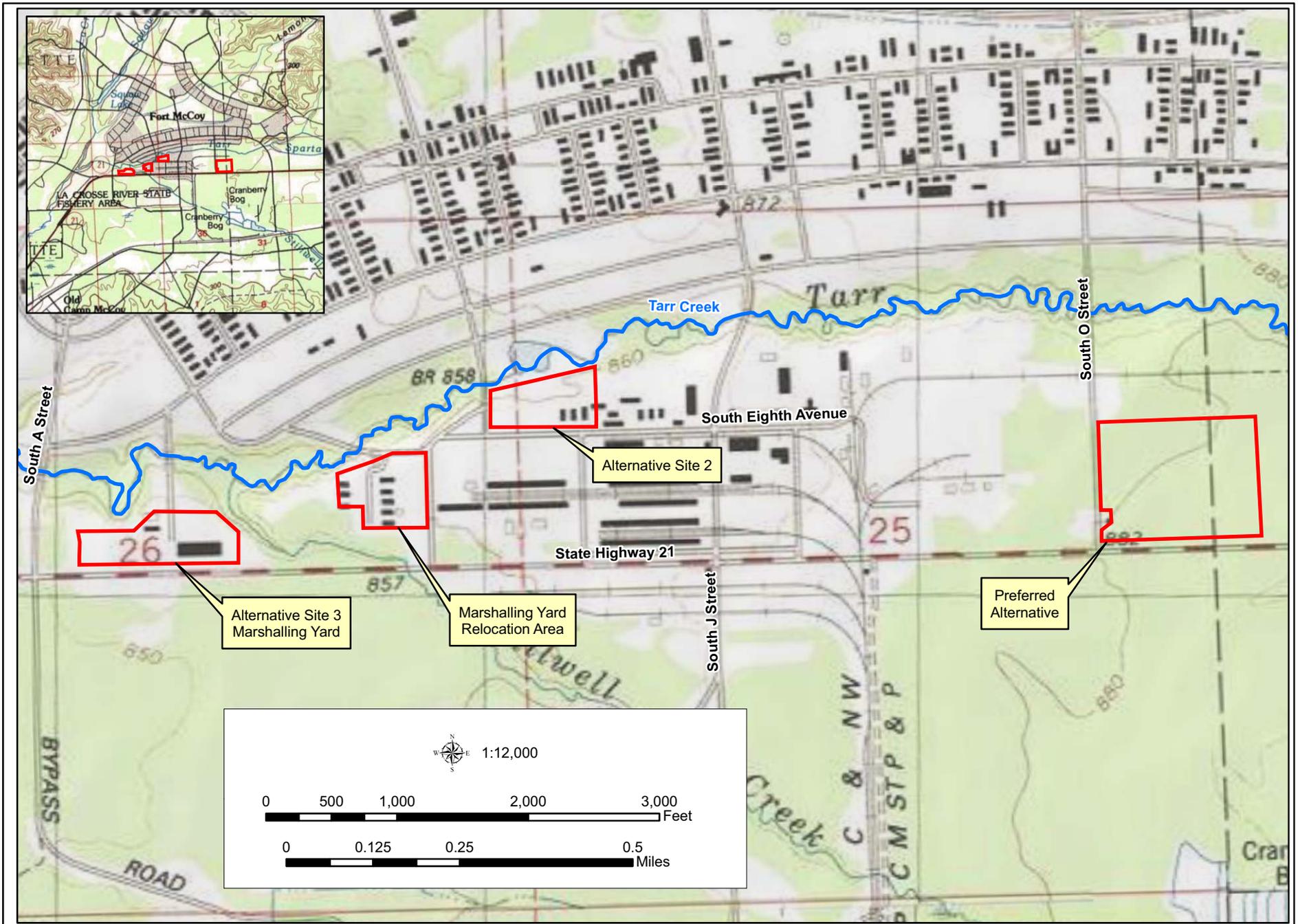


Figure 3-1: Preferred and Alternative Site Locations

3.3.1 Tarr Creek Site

Alternative Site 2 (Tarr Creek Site) is an open, grassy area located west of Building 2168 and immediately south of Tarr Creek (see Figure 3-1 and Photograph 2). This site contains about 7 acres of useable area.



Photograph 2. Tarr Creek Site looking northeast

3.3.2 Marshalling Yard Site

The Marshalling Yard, shown on Figure 3-1, is considered Alternative Site 3. If this site were ultimately selected, the Marshalling Yard would have to be relocated east northeast of this site in the area labeled Marshalling Yard Relocation Area (see Figure 3-1). These sites contain about 9 acres and 7 acres, respectively, of useable area. Photograph 3 is a view of the Marshalling Yard and Photograph 4 provides a view of the Marshalling Yard Relocation Area.



Photograph 3. View of the Marshalling Yard looking east



Photograph 4. View of the Marshalling Yard Relocation Area looking west

3.4 Alternatives Eliminated from Further Consideration

3.4.1 Use of Other Facilities to Accommodate Realigned Units

Fort McCoy has considered all means of accommodating the proposed realignment using or renovating existing space as well as off-post space that is available for leasing. Use of off-post leased space to meet Fort McCoy's requirements would involve several major drawbacks. AT/FP policies specify certain facilities characteristics, such as physical security features, set-back from roadways, and "hardened" construction. Use of leased space in the private sector – having personnel and equipment both on-post and off-post – would adversely affect command and control functions, result in higher operational costs, and impair efficient use of resources. For these reasons, use of leased space is not feasible and is not further evaluated in this EA.

Construction of new facilities is driven by the need to ensure adequate space is available for mission requirements. Fort McCoy's existing space is, with very minor exception, fully utilized for current mission requirements. This is especially true during the summer months, when Fort

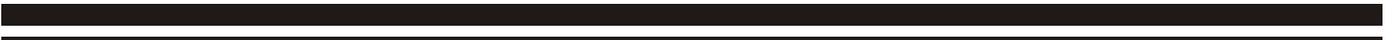
McCoy experiences huge and prolonged demands for training ranges and space. In addition, many of the Garrison directorates are currently occupying World War II-era buildings that have inadequate space, electrical services, communication lines and other support facilities to support their on-going mission. These directorates intend to utilize the space vacated by the 84th ARRTC. Accordingly, new construction is required and the alternative to use or renovate existing facilities is not discussed further in this EA.

3.4.2 Schedule

Alternatives for scheduling of proposed realignment actions are principally affected by three factors: the availability of facilities to house realigned personnel and functions, efforts to minimize potential disruption of mission activities based on the number of personnel involved in the relocation or the amount of work to be performed, and early realization of benefits to be gained by completion of the realignments. In most cases, minor shifts in schedule would not produce different environmental results.

The schedule for implementation of the proposed action must balance facilities construction timeframes, planned arrival dates of inbound units, and stand-up dates of newly-established units, all within the 6-year limitation of the BRAC law. Realignment earlier than that shown in the schedule discussed above is not feasible in light of the time required to build facilities. Shifting of schedules to accomplish realignment at a later date would unnecessarily delay realization of benefits to be gained. Since earlier implementation is not possible, and since delay is avoidable and unnecessary, alternative schedules are not further evaluated in this EA.

SECTION 4.0
AFFECTED ENVIRONMENT AND CONSEQUENCES



4.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

4.1 Introduction

This section of the EA describes the natural and human environment that exists at and surrounding Fort McCoy, and the potential effects to those resources as a result of the proposed action and alternatives. Only those parameters that have the potential to be affected by the proposed action and alternatives are described, as per CEQ guidance (40 CFR 1501.7 (a)[3]). Therefore, resources and items, such as climate, air space, energy sources, communication systems, solid waste, environmental justice, and protection of children are not addressed for the following reasons:

- Climate—the proposed project would not affect, nor be affected by, climate.
- Air space—the proposed project does not involve any additional aircraft training and thus air space would not be affected.
- Geology—the project would not affect regional geological features nor cause an existing geologic feature to become unstable.
- Energy sources—slight increases in energy consumption would occur during the construction of the NWRRSC facility. Upon completion of the realignment, however, energy consumption would be expected to return to, or be less than, current demands.
- Communication systems—the project would have no additional demand or other impact on local or regional communication systems.
- Solid waste—the proposed action would not result in increased production of solid waste; in fact, due to the overall reduction of personnel at Fort McCoy, solid waste production would decrease in the long term.
- Environmental justice and protection of children—the population surrounding Fort McCoy is primarily Caucasian and is above the poverty level. No displacements of residences or businesses would be required and the construction area would be restricted to authorized personnel. There is adequate housing availability in the region. Therefore, no disproportionate impacts to minority or low-income families or effects to children would occur as a result of the proposed action or alternatives.

An impact (consequence or effect) is defined as a modification to the human or natural environment that would result from the implementation of an action. The impacts can be either beneficial or adverse, and can be either directly related to the action or indirectly caused by the action (secondary, indirect, or synergistic effects). The effects can be temporary (short-term), long lasting (long-term), or permanent. For purposes of this EA, temporary effects are defined as those that would last less than 3 years after completion of the action. Long-term impacts are defined as those that would last 3 to 20 years. Permanent impacts would require an irretrievable commitment of resources.

Impacts can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. The significance of the impacts presented in this EA is based upon existing regulatory standards, scientific and environmental knowledge, and/or best professional opinions of the authors of the EA. The significance of the impacts on each resource will be described as significant, moderate, minimal, insignificant (or negligible), or no impact. Significant impacts are those effects that would result in substantial changes to the environment and should receive the greatest attention in the decision-making process.

4.2 Land Use

4.2.1 Affected Environment

4.2.1.1 Regional Setting

Fort McCoy encompasses approximately 60,000 acres in Monroe County and contains various training areas, drop zones, airfields, recreation/open areas, maintenance facilities, classroom and administrative facilities, housing and other cantonment structures. The lands surrounding Fort McCoy are used for a variety of purposes, primarily agriculture, mixed forests and smaller rural-density communities (U.S. Army Corps of Engineers [USACE], 1994). Approximately 61 percent (351,775 acres) of Monroe County is used for farms; the average farm size is 182 acres (U.S. Department of Agriculture [USDA] 2002). The Black River State Forest and the Jackson County Forest are located north of the installation and the La Crosse River Fishery Recreational Area adjoins the southwest corner of the installation (see Figure 1-1).

4.2.1.2 Installation Land Use

Fort McCoy is used primarily by training and operational facilities, including, but not limited to drop zones, ordnance impact areas, tactical assault landing strip, and Mobilization and Training Equipment Sites (MATES). Other major uses include research, development, test and evaluation, hospital, housing, storage, recreation, and leased lands (e.g., Wisconsin State Patrol Academy, grazing/agricultural out-leases) (USACE 1994).

The Preferred Alternative Site is currently considered open space and is vegetated with a mixed oak-pine community. The site is surrounded by other Army office buildings, including Building 0050 which currently supports the 84th ARRTC to the north, and Wisconsin Highway 21 to the south. This site has been proposed for various uses in the past, including expansion of the ARRTC facility and a Movement and Mobilization Training Center; none of these projects have come to fruition to date.

The Tarr Creek Site (Alternative Site 2) is currently open grassland and is situated between a paved parking lot to the south and Tarr Creek to the north. Garrison facilities, specifically Building 2168, are located immediately east of the site.

As the name implies, the Marshalling Yard (Alternative Site 3) is currently used to organize (marshal), inventory, deploy and redeploy equipment for military operations. It is an open area of about 9 acres. The majority of the site is covered with a gravel pad or concrete; a small strip of open grassland surrounds the site. If this site were ultimately selected, the Marshalling Yard would need to be relocated. The current land use at the proposed relocation site is open grassland and is situated immediately west of other Garrison directorate facilities, and south of South 8th Avenue (see Figure 3-1). The proposed relocation site is approximately 7 acres.

4.2.1.2 Current and Planned Development

Currently, there are plans to construct a 124-unit housing development on Fort McCoy in an attempt to relieve some of the housing deficit on post. This construction is anticipated to be completed by the end of 2007.

4.2.2 Environmental Consequences

4.2.2.1 Preferred Alternative

Implementation of the Preferred Alternative at the proposed location would permanently convert approximately 7 acres of forested area to an impervious pavement and buildings. Training and

administrative uses at Fort McCoy would not change as a result of the proposed action. The use of the Preferred Alternative Site location is consistent with the installation's mission, policies and plans and, thus, is considered an insignificant impact to land use.

4.2.2.2 Alternative Site 2

Implementation of the proposed construction at Site 2 would adversely affect approximately 7 acres of land by permanently converting open grassland to paved areas and buildings. However, the use of Alternative Site 2 is consistent with the installation's mission, policies and plans and, thus, is considered an insignificant impact to land use.

4.2.2.3 Alternative Site 3

Use of this site for the establishment of the NWRRC would not significantly impact the site's current land use, as it is routinely used for marshalling equipment and materials. However, the Marshalling Yard would need to be relocated at the Marshalling Yard Relocation Site, which would require the permanent conversion of about 7 acres of open grassland to gravel pad or pavement. Consequently, selection of Alternative Site 3 would affect approximately 16 acres of land use. Still, given the vast amount of land at Fort McCoy (i.e., 60,000 acres) and that these uses are consistent with the installation's mission, policies, and plans, these effects would be considered minimal.

4.2.2.4 No Action Alternative

No direct short-term changes in land use to any of the proposed sites would occur under the No Action Alternative. There is the potential that any of the three sites would be developed in the long-term given the need for new administrative and classroom facilities and the fact that all three sites are situated within a military cantonment area.

4.3 Aesthetics and Visual Resources

4.3.1 Affected Environment

As indicated in the land use section, most of the area surrounding Fort McCoy is rural and comprised of farms and forests. These communities interspersed with rolling hills and gently flowing rivers and creeks provide an aesthetically pleasing setting for Fort McCoy. Specific areas that contribute to the installation's aesthetic quality include the La Crosse River Fishery Recreational Area (located adjacent to the installation), the Pineview Recreation Area, and the oak/pine woodlands comprising Fort McCoy's South Post.

4.3.2 Environmental Consequences

4.3.2.1 Preferred Alternative

Construction and operation of the NWRRC at the Preferred Alternative Site would eliminate some of the oak/pine woodlands that contribute to the visual quality of Fort McCoy. Approximately 7 acres of forest would be permanently replaced with pavement and hard structures. Temporary construction areas would need to be immediately replanted with native vegetation to avoid additional long-term or permanent adverse effects to the area's aesthetic resources. Nonetheless, because of the small amount of acreage impacted relative to that within and surrounding Fort McCoy, the permanent and temporary effects would not be considered significant. In addition, various mitigation measures can be implemented to further reduce these adverse effects, as presented in Section 4.15.

4.3.2.2 Alternative Site 2

As indicated previously, this site is open grassland adjacent to other buildings and parking lots; these disturbed and developed areas would minimize any perceived adverse impacts relative to the construction of the NWRRSC. However, this site is also adjacent to Tarr Creek; a picnic and wildlife viewing area is located on the north side of the creek. The proposed facility would adversely impact the views from these areas and degrade any visitor's experience during their time in these areas. Because the Alternative Site 2 is already surrounded by development, these effects would be considered minimal.

4.3.2.3 Alternative Site 3

Construction of the proposed facility at Alternative Site 3 would not impact the visual quality of the site because it is already disturbed and often contains various pieces of heavy equipment and vehicles. Its juxtaposition to Highway 21 also reduces its aesthetic appeal. Selection of this site would indirectly affect the aesthetic quality of the Marshalling Yard Relocation Site and result in the permanent loss of approximately 7 acres of open grassland. However, the Marshalling Yard Relocation Site has also been developed previously, which detracts from the visual quality of the site. Therefore, the impacts to the aesthetic resources at both the Alternative Site 3 and the Marshalling Yard Relocation Site would be considered insignificant.

4.3.2.4 No Action Alternative

Implementation of the No Action Alternative would allow each of the alternative sites to remain in the current conditions, at least for the short term. The Preferred Alternative Site would continue to be a forested area with certain visual qualities. Alternative Site 2 would remain as open grassland within developed cantonment areas. No visual impacts would occur to persons who visited or use the picnic/recreation areas on the north side of Tarr Creek. The Marshalling Yard would continue to be used as such, with concomitant adverse impacts due to the location adjacent to Highway 21 and the routine presence of heavy equipment and vehicles. The Marshalling Yard Relocation Site would remain in its present condition, too. However, each of these sites is subject to future development given that they are contained within the cantonment area of a military installation.

4.4 Air Quality

4.4.1 Affected Environment

Monroe County is located within Region 5 of the U.S. Environmental Protection Agency (EPA) and is currently in attainment for all monitored pollutants (EPA 2006). Fort McCoy has over 2,600 boilers and space heaters fueled by natural gas and liquid propane gas to provide heat for the base. Electric generators are available for emergency use. The base has three paint booths for coating tactical vehicles using high-volume, low-pressure (HVL) spray guns with overspray filters for particulate control. Degreasing operations occur at various locations at Fort McCoy. Petroleum products are stored in 17 above ground storage tanks (ASTs), including three ASTs with capacities of approximately 100,000 gallons. Fugitive emission sources at Fort McCoy include unpaved roads, sewage treatment, open storage piles, and a former landfill. To qualify as a Synthetic minor non-Part 70 source, Fort McCoy has elected to limit fuel consumption rates for all heating units and coating usage rates for surface coating operations. This would ensure that potential criteria emissions are less than 100 tons per year (TPY), individual potential Hazardous Air Pollutant (HAP) emissions are less than 10 TPY and total potential HAP emissions under 25 TPY. Fort McCoy is currently operating under a draft permit (Permit No. 642024900-F10). Fort McCoy's HAP emissions are all well below the threshold limits (Wisconsin Department of Natural Resources [WDNR] 2006b). The total emissions (actual, maximum and potential) allowed under this permit are presented in Table 4-1. The emission

factors and other detailed information relative to Fort McCoy's permitted emissions are included in Appendix A.

Table 4-1. Total Emissions Estimate and Authorized under Synthetic Minor non-Part 70 Source Permit*

Pollutant	Actual Emissions (TPY)	Maximum Theoretical Emissions (TPY)	Potential to Emit (TPY)	Threshold (TPY)
Particulates	2.51	18	8.98	3.23
Sulfur dioxide	0.085	1.28	0.4	0.4
Nitrogen oxides	17.04	655.2	95.2	95.16
Organic compounds	27.1	40.41	40.41	40.41
Carbon monoxide	5.51	253.9	61.3	61.3

*exclusive of fugitive dust and HAP

Source: WDNR 2006b.

4.4.2 Environmental Consequences

4.4.2.1 Preferred Alternative

Construction of the proposed facility would create temporary and minor increases in particulates by removing vegetation and disturbing soils. These impacts can be further minimized by applying water or other wetting solutions to construction sites to alleviate fugitive dust. Similarly, operation of gasoline- or diesel-powered construction equipment would result in temporary and minor increases in sulfur dioxides, nitrogen oxides, volatile organic compounds and carbon monoxide. None of these increases would be expected to contribute to the installation's overall air emissions to the point that a potential violation would occur. These emissions would be insignificant and well below *de minimus* thresholds, regardless of the alternative selected. The increased emissions associated with the construction would return to pre-project conditions within 1 month after cessation of the construction activities. Construction is expected to be completed in less than 2 years.

Operation of the facility would result in temporary and minor increases in emissions during the period (approximately 18-24 months) that the 84th ARRTC and the NWRRC concurrently operated at Fort McCoy. The primary sources for the increased emissions during this time would be vehicle emissions; heating, ventilation, and air conditioning (HVAC) units, electric generators and sewage treatment systems. Once the 84th ARRTC realigns to Fort Knox, the operation emissions would be reduced to or below ambient levels. Therefore, adverse impacts to air quality would be temporary to short-term and minimal. An air quality conformance analysis is not required since Monroe County is in attainment.

4.4.2.2 Alternative Site 2

Impacts to air quality would be the same as described for the Preferred Alternative.

4.4.2.3 Alternative Site 3

Air emission sources and types would be similar, but emission quantities would be slightly higher, than those described for the Preferred Alternative. The additional increases in air pollutants would be generated by the development of the Marshalling Yard Relocation Site. Since only minor grading and placement of aggregate over this site would be required for development, negligible increases in fugitive dust and engine emissions would be generated. The impacts to the region's air quality would be insignificant.

4.4.2.4 No Action Alternative

Fort McCoy would continue to operate under its current air permits and remain in compliance under the No Action Alternative. The installation would continue to investigate methods for reducing its overall emissions.

4.5 Noise

4.5.1 Affected Environment

Major noise sources at Fort McCoy include aircraft operations, weapons training, vehicle traffic and rail traffic. These noises are measured and incorporated into a computer modeling program that identifies and delineates the major noise zones. These data are used to manage and abate noise through the Installation Compatibility Use Zone (ICUZ) plan, in accordance with AR 200-1. The ICUZ plan identifies three noise zones on Fort McCoy, as shown in Figure 4-1. The approximate noise levels associated with these three zones are presented in Table 4-2. As can be seen in Figure 4-1, all three sites are located in Noise Zone I.

Table 4-2. Department of the Army Land Use Guidance Zones

Noise Zone	Population Annoyance	A-weighted DNL*	C-weighted DNL**	Acceptability***
I	<15%	<65 dBA	<62 dBC	Acceptable
II	15-39%	65-76 dBA	62-70 dBC	Normally unacceptable
III	>39%	>76 dBA	>70 dBC	Unacceptable

Source: US Army, Fort McCoy, 2005a.

* A-weighted Day-Night Level (DNL) is a weighted measurement of the sound the human ear hears in a steady state or as a constant noise

**C-weighted Day-Night Level (DNL) is a weighted measurement of the sound that the human ear hears in an impulse noise, such as a sonic boom

***Acceptability pertains to noise-sensitive land uses such as housing, schools, or medical facilities

4.5.2 Environmental Consequences

4.5.2.1 Preferred Alternative

Construction of the NWRRC facility at the Preferred Alternative Site would result in temporary noise increases caused by heavy construction equipment, generators, and construction vehicles. Some noises could be generated that would approach 85 to 90 dBA. The forest community surrounding this site would attenuate some of the noise. In addition, the closest noise sensitive receptor (e.g., parks, churches, schools or hospitals) is located more than 2,500 feet from the Preferred Alternative Site. This distance and the forest community would rapidly attenuate the noise to a level that would be acceptable. Within 200 feet of the site, the noise level would be expected to be within the 65 to 70 dBA level. Furthermore, construction would occur only during daylight hours, so the noise would probably average less than 70 dBA for the entire construction period. Once the construction has been completed, ambient noise levels would immediately return. Operation of the NWRRC would not generate additional noise. Realignment and establishment of the NWRRC would not result in additional weapons training or aircraft operations; therefore, regional ambient noise levels would remain the same, and impacts to noise levels would be temporary and insignificant.

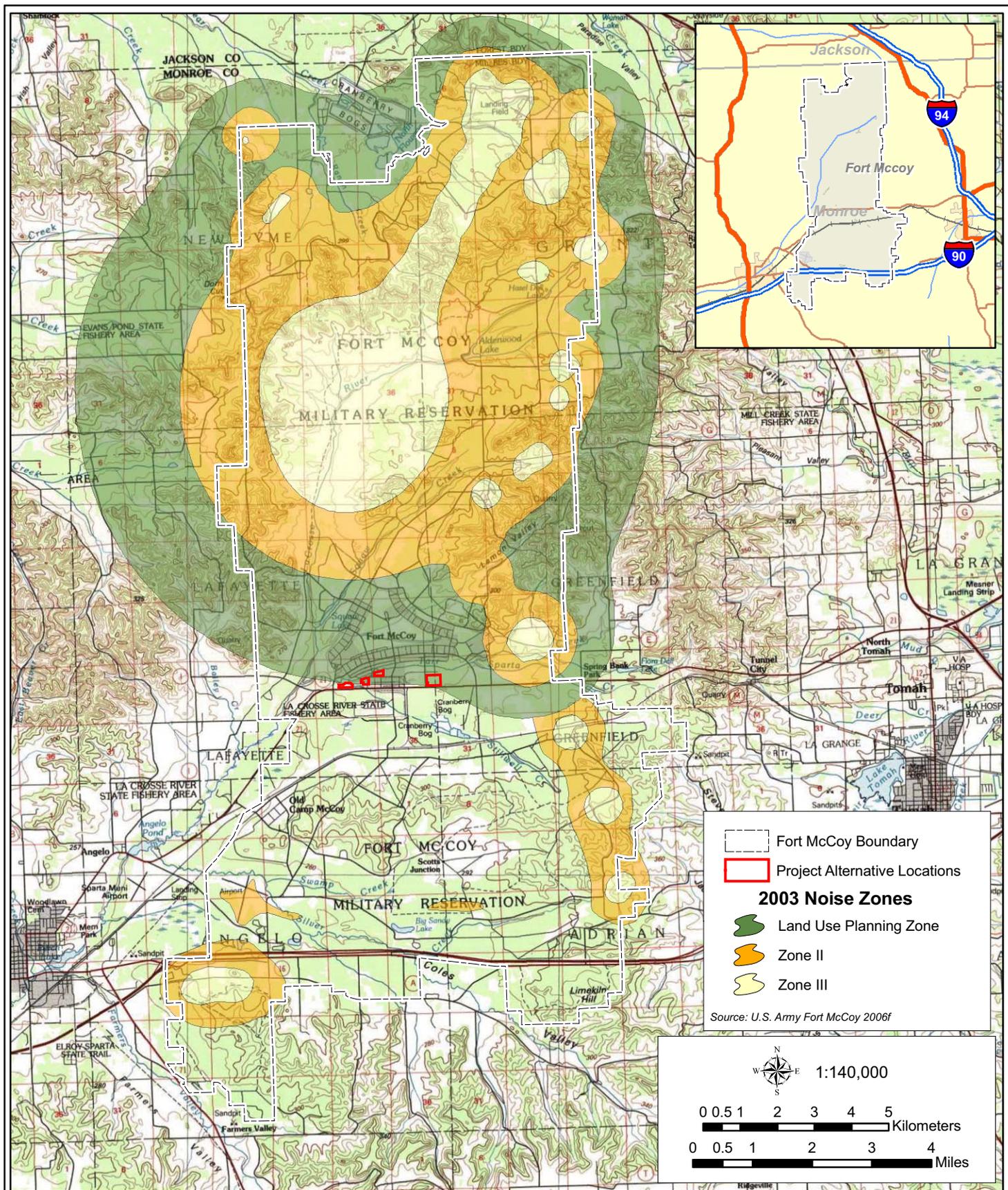


Figure 4-1: Noise Zone Map for Fort McCoy



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4.5.2.2 Alternative Site 2

Construction and operation of the NWRSSC at Alternative Site 2 would result in impacts to local and regional noise levels similar to that described for the Preferred Alternative. Due to the proximity of this site to other administrative facilities and the recreation site north of Tarr Creek and the lack of dense vegetation on the site, construction noise would be expected to be more annoying than at the Preferred Alternative Site. Still these effects would be temporary and insignificant.

4.5.2.3 Alternative Site 3

Construction and operation of the NWRSSC at Alternative Site 2 would result in impacts to local and regional noise levels similar to that described for the Preferred Alternative. Although this site is closer to the Pineview Recreation Site, which is used by Fort McCoy employees, military personnel and the general public, it is over 2,500 feet away from the Pineview Recreation Site. Noise at the construction site would be attenuated to less than 65 dBA at this distance. In addition, construction of the NWRSSC at the Marshalling Yard would also require construction and development of the Marshalling Yard Relocation Site, which would increase the duration of construction noise. Operation of the NWRSSC at this site would not result in permanent increases to ambient noise levels.

4.5.2.4 No Action Alternative

Implementation of the No Action Alternative would cause no temporary or long-term increases to the ambient noise levels. The sites would remain in Noise Zone I.

4.6 Soils

4.6.1 Affected Environment

Fort McCoy is located on the eastern edge of the Western Upland uplift that was formed over 500 million years ago. The ridge that defines the highest point of the uplift (1,450 feet elevation) lies just east of Fort McCoy and is associated with the ridge system that runs throughout post. The upper geologic strata of the area consist of carbonate rock that is found in small deposits along the eastern boundary of the post. The upland deposits of carbonate rock have eroded away, leaving softer sandstone and shale deposits, the alluvium of which is the parent material for most soils on post. Wind blown loess, a material derived from the glacial period, also has an influence on much of the soil on post (U.S. Army Fort McCoy 2006g).

The soils at Fort McCoy that were derived from these geologic processes are divided into six main categories based on their texture. These categories are peat, sand, loamy sand, sandy loams, silt loams and varied loams. Minor amounts of fine sandy loam and loam are present. Over 80 percent of Fort McCoy soils are classified as sand, including the Boone, Impact, Meehan, Au Gres and Tarr sand series. They are deep, excessively drained soils with very little organic matter. When the vegetation layer is removed, wind erosion occurs in sandy soils. Slopes range from level to 45 percent (U.S. Army Fort McCoy 2006g).

The soils at the Preferred Alternative Site are primarily comprised of Tarr sands on 0 to 3 percent slopes. The soils at the Tarr Creek Site (Alternative 2), Marshalling Yard (Alternative 3) and Marshalling Yard Relocation Site are comprised of Tarr sands on 0 to 6 percent slopes (Figure 4-2). These soils consist of deep, nearly level or gently sloping sands that are excessively drained. Permeability is rapid and available water capacity is very low. Water erosion is typically not a problem but wind erosion can be an issue if proper measures are not implemented during and after development activities.

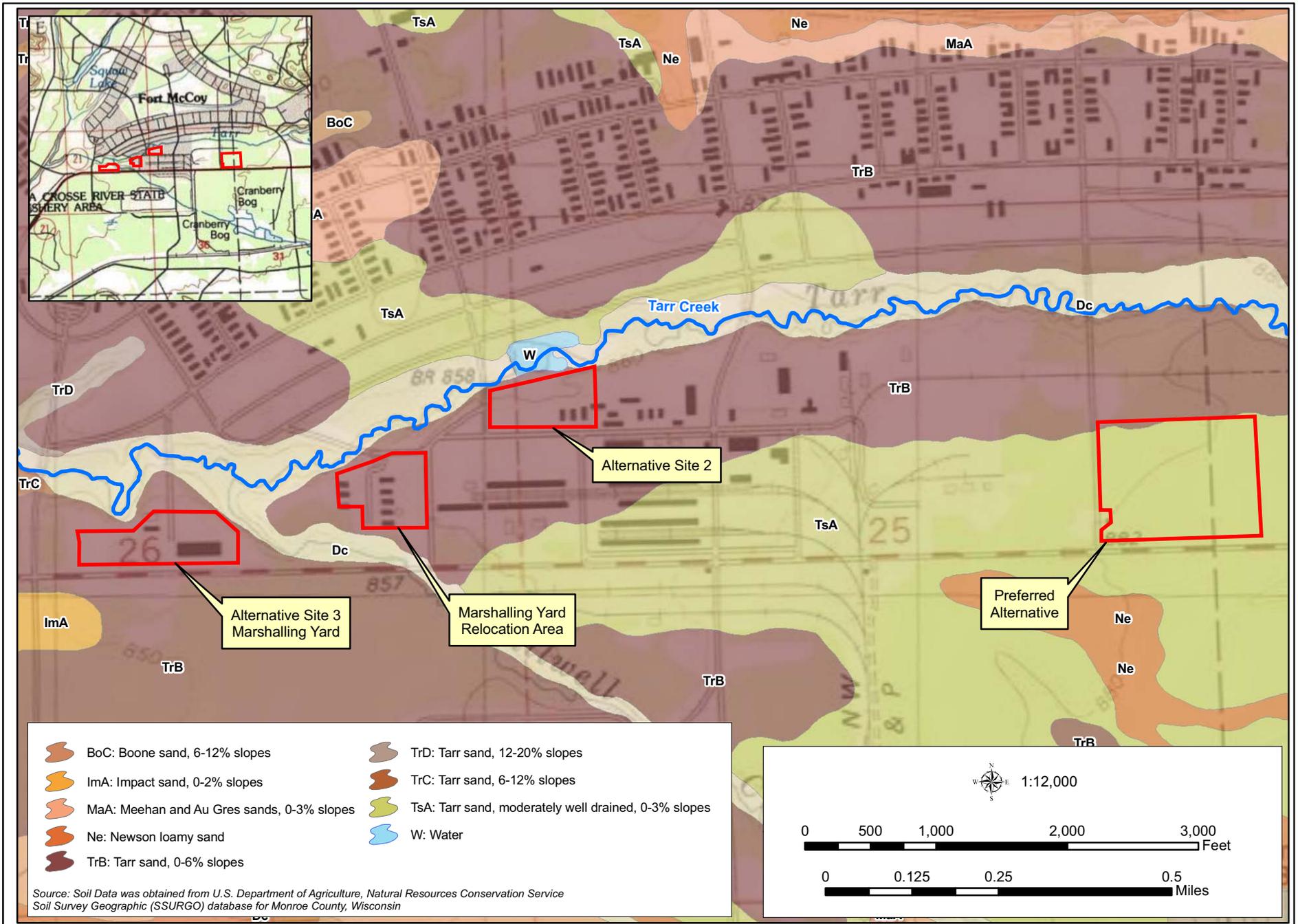


Figure 4-2: Soils Within the Preferred and Alternative Site Locations



The Farmland Protection Policy Act of 1990 defines prime farmland as "...land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, labor, and without intolerable soil erosion." Unique farmland is defined as "...land, other than prime farmland, that is used for the production of specific high-value food and fiber crops, such as, citrus, nuts, olives, cranberries, fruits, and vegetables." The prime farmland soils on Fort McCoy are generally comprised of the Tarr-Kirby-Billet Association (USACE 1994), but are considered prime farmlands only when they are irrigated (Weinkes 2006). None of these soils located on Fort McCoy are currently used or are available for agricultural production (U.S. Army Fort McCoy 2005a). Therefore, none of the sites contain prime farmland soils.

4.6.2 Environmental Consequences

4.6.2.1 Preferred Alternative

Construction of the NWRSSC would remove approximately 7 acres of Tarr sands on 0 to 3 percent slopes from future biological productivity. Because the area to be disturbed is greater than 1 acre, a Storm Water Pollution Prevention Plan (SWPPP) would need to be prepared as part of a Wisconsin Discharge Pollution Elimination System (WPDES) General Construction Permit. The SWPPP would identify Best Management Practices (BMP), which would be implemented to reduce soil erosion and sedimentation from the construction site. Wind erosion of the site's soils would be reduced by applying water or other wetting solutions during dry periods.

Operation of the NWRSSC would have no effect on the post's soils. No increases in field training exercises, which could contribute to soil disturbance and erosion, would be expected from the establishment of the NWRSSC. Therefore, some permanent, but insignificant impacts to soils would occur as a result of the construction and operation of the NWRSSC.

4.6.2.2 Alternative Site 2

The impacts to soils at Alternative Site 2 would be similar to those effects discussed under the Preferred Alternative, except the type of soil that would be impacted would be Tarr sands on 0 to 6 percent slopes.

4.6.2.3 Alternative Site 3

The impacts to soils at Alternative Site 3 would be similar to those effects discussed under the Preferred Alternative. However, if this site was ultimately selected, the Marshalling Yard would have to be relocated, which would result in approximately 7 additional acres of soils permanently removed from biological productivity. Tarr sands on 0 to 6 percent slopes would be impacted at both the Alternative Site 3 and the Marshalling Yard Relocation Area.

4.6.2.4 No Action Alternative

Under the No Action Alternative, no soils would be disturbed by construction activities. The soils at each of the three alternate sites would remain biologically productive.

4.7 Water Resources

4.7.1 Affected Environment

4.7.1.1 Surface Water

Surface waters and floodplains within the vicinity of the project are illustrated in Figure 4-3. Tarr Creek flows in a westerly direction through Fort McCoy for approximately 10 miles before

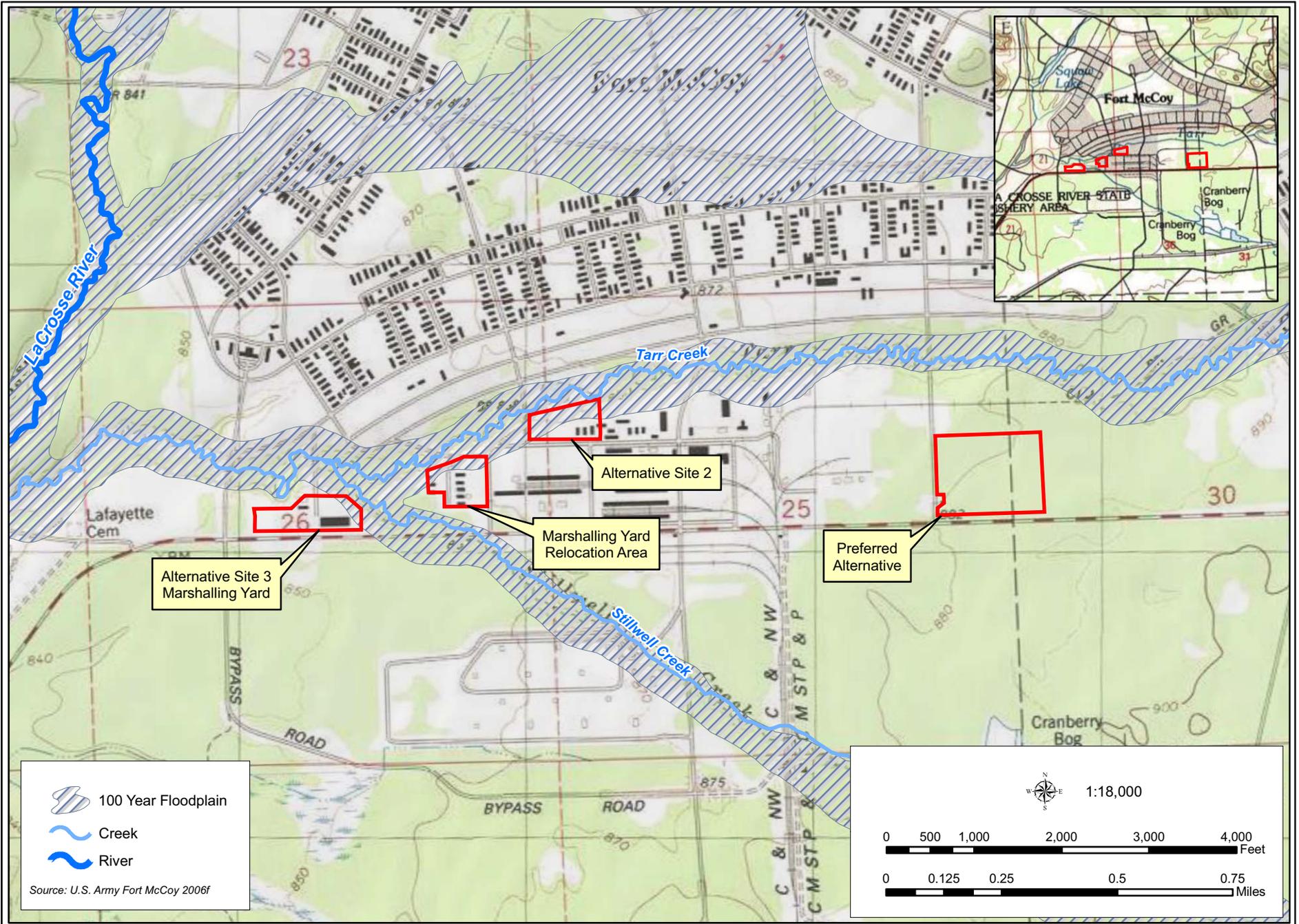


Figure 4-3: Surface Waters and 100 Year Floodplain Near the Preferred and Alternative Site Locations

reaching the La Crosse River (WDNR 2002a). Stillwell Creek is a tributary to Tarr Creek and is adjacent to the Marshalling Yard and the Marshalling Yard Relocation Area. Stillwell Creek joins Tarr Creek approximately 1 mile upstream of Tarr Creek's confluence with the La Crosse River. Fort McCoy occupies 57 percent of the Upper La Crosse River watershed (WDNR 2002a). The minimization of training impacts, management of in-stream habitat, and control of surface runoff and sediment implemented by Fort McCoy have improved water quality and increased fisheries populations in Tarr Creek and other surface waters of the Upper La Crosse River watershed. Although development and training within Fort McCoy can affect surface waters, non-point source pollution and the lack of riparian buffers in agricultural lands adjacent to Fort McCoy are a relatively greater threat to this resource.

The Clean Water Act (CWA) of 1972 employs a variety of regulatory and non-regulatory tools to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" by protecting healthy waters and restoring impaired waters. As part of the state water management program approved under the CWA, WDNR has assessed and categorized waters by their ability to support designated uses. Tarr Creek is classified as an Exceptional Resource Water (ERW) (Wisconsin Administration Code [WAC] NR 102.11) and a Class I Trout Stream (WDNR 2002b) by WDNR. ERWs are among the state's highest quality waters and have not been significantly impacted by humans. ERW designation provides protection from further point source pollution under the anti-degradation policy (WAC NR 102.05).

Section 303(d) of the CWA requires each state to periodically submit to EPA for approval a list of impaired waters. Impaired waters are those that are not meeting the state's water quality standards. The nearest impaired water downstream of potentially affected portions of Tarr Creek is the La Crosse River at Angelo Pond (WDNR 2004a). Impairments to fish consumption include high levels of mercury resulting from atmospheric deposition. Fort McCoy is approximately 5 river miles upstream of Angelo Pond. Threats to water quality within the Upper La Crosse River watershed include those resulting from agricultural use in headwaters, expanding development, and contamination from point source pollutants (WDNR 2002a). The quality and quantity of impacts related to development within Fort McCoy are limited and minimal, especially in relation to adjacent agricultural uses.

Wisconsin requires the completion of a Storm Water Discharge Permit for Construction Site Erosion Control, which is issued by the WDNR (WAC NR 216), prior to initiation of construction. Through the permitting process, the Army would develop methods to minimize erosion and control storm water runoff both during and after construction by utilizing best management practices (WAC 154) and meeting performance standards (WAC 151) established by the WDNR. The Army would develop a site specific SWPPP and Erosion Control Plan describing the BMPs that would be used on-site for erosion control.

4.7.1.2 Hydrogeology/Groundwater

Ground water in the Upper La Crosse River watershed is stored in shallow, unconsolidated aquifers that discharge next to streams and deep, Cambrian sandstone aquifers (WDNR 2002a). Within Fort McCoy, the bedrock aquifer is predominantly sandstone that is recharged by the percolation of surface water through soil and subsoil. Due to high permeability of soils and the unpredictable movement of groundwater through fractured layers, all aquifers in the watershed are highly susceptible to pollution from surface contaminants. Fort McCoy obtains all of its water from 12 deep wells that provide an adequate supply of high quality water for current and future demands (U.S. Army Fort McCoy 2006b). Each of the alternative sites is at least 1 mile from the 15-year, well head protection areas (WHPA). Section 2-6(3)(a) of AR 200-1 recommends that Army installations establish a WHPA and a Well Head Protection Plan

(WHPP) to comply with local regulations and reduce the potential for groundwater contamination. The WHPA encompasses an area that has a minimum of a 5-year travel time for groundwater supplying Fort McCoy's drinking wells.

4.7.1.3 Floodplain

Executive Order 11988 (Floodplain Management) directs Federal agencies to avoid developments within floodplains. Wisconsin's Floodplain Management Program (WAC NR 116) also regulates development within the floodways of state waters and prohibits the placement of any structure, building, fill, or development within floodways. Floodways are defined as lands within the 100-year floodplain and have a 1 percent chance of becoming inundated by peak flows during any given year. The Preferred Alternative Site is not located within a 100-year floodplain. The floodplains of Tarr and Stillwell creeks occupy 4.0 acres of Alternative Site 2, 1.9 acres of the Marshalling Yard Relocation Area, and 1.0 acres of Alternative Site 3 (see Figure 4-3).

4.7.1.4 Coastal Zone

The Coastal Zone Management Act (CZMA) of 1972 directs each state to develop a Coastal Management Program for the protection of coastal resources from the impacts of development. Wisconsin's Coastal Management Program was established in 1978 and defines the state's Coastal Zone, in accordance with Section 304 (1) of the CZMA, as all lands within any county having a shoreline on Green Bay, Lake Michigan or Lake Superior (Bay Lake Regional Planning Commission 2004). Monroe County, and hence Fort McCoy, is not within Wisconsin's Coastal Zone.

4.7.2 Environmental Consequences

4.7.2.1 Preferred Alternative

Under the Preferred Alternative, up to 7 acres of soils would be cleared of vegetation and consequently susceptible to erosion during construction activities. Tarr Creek could be affected by storm water runoff and suspended sediments resulting from precipitation events during the construction period. The potential effects of the Preferred Alternative on surface waters would be limited to Tarr Creek and are not likely to extend downstream past its confluence with the La Crosse River. The proposed facilities would contribute to the cumulative area of development within the Upper La Crosse River watershed. The Army would be required to apply for and comply with Wisconsin's General Storm Water Permit and SWPP. Specific erosion and sedimentation controls would limit potential impacts to Tarr Creek. The Tarr Creek floodplain is approximately 750 feet north of the Preferred Alternative Site and would not be affected by construction activities. Therefore, no significant impacts to surface waters would occur.

The facility design would incorporate storm water control features that would not result in a lowered water quality of the adjacent ERW, Tarr Creek. The new facilities would contribute to the overall proportion of paved surfaces within the watershed. However, incorporation of post-construction storm water controls would minimize long-term impacts to surface waters. Therefore, no significant impacts to surface waters would occur as a result of post-construction operations of the facility implemented under the Preferred Alternative. Established WHPAs and the Tarr Creek floodway are not within the boundaries of the Preferred Alternative Site; therefore, ground water and floodplains are not likely to be affected.

4.7.2.2 Alternative Site 2

Potential impacts to Tarr Creek and other downstream waters resulting from implementation of Alternative 2 would also require compliance with state and Federal water quality regulations.

Although this site is relatively close to Tarr Creek, the permitting process requires that all storm water runoff, including associated sediment loads, be controlled to a level equal to or better than baseline conditions. Thus, although the potential for impacts to surface waters is greater at Alternative Site 2, the quality and quantity of impacts would be nearly equivalent. This site is not within the established WHPAs and would not affect ground water. Construction of the NWRRC at this site would also encroach into the Tarr Creek 100-year floodplain and, thus, should be avoided under EO 11988.

4.7.2.3 Alternative Site 3

The impacts to surface and ground water at the Alternative Site 3 and Marshalling Yard Relocation Area would be similar to those described for the Preferred Alternative. However, like the Alternative Site 2, both the Marshalling Yard and Marshalling Yard Relocation Area are situated within the 100-year floodplains of Tarr and Stillwell creeks. Consequently, construction at these two sites would not be in compliance with EO 11988 if the construction design could not avoid the floodplains.

4.7.2.4 No Action Alternative

Under the No Action Alternative, no new development would occur. Baseline conditions for surface and ground waters as described above would remain unchanged.

4.8 Biological Resources

4.8.1 Affected Environment

4.8.1.1 Vegetation

Plant communities at the alternative sites were identified during surveys conducted by GSRC biologists on April 26, 2006. Fort McCoy is located within the Western Coulee Landscape Unit, which supports a flora heavily influenced by prairie elements (WDNR 2004b). The vegetation communities at each site are depicted in Figure 4-4 and briefly described below.

4.8.1.1.1 Preferred Alternative Site

The Preferred Alternative Site supports a late succession Southern Dry Forest Community (WDNR 2004b) and is similar to other areas of Oak-Hickory forest community types on Fort McCoy (U.S. Army Fort McCoy 2006g). Forest communities similar to that found at the Preferred Alternative Site occupy 13 percent of lands within the Western Coulee Landscape Unit and are among the most common forest community in the region (45 percent of forested areas). The canopy at this site was dominated by burr (*Quercus macrocarpa*) and white oaks (*Q. alba*); however, some larger individuals have been removed resulting in a moderately open canopy. A few scattered black oaks (*Quercus velutina*), a species typically associated with prairies or oak woodlands, were observed; however, the southeast corner supported mature red (*Pinus resinosa*) and white pines (*P. strobes*) indicating a lack of recent fire. The shrub layer consisted of large colonies of blueberry (*Vaccinium* spp.) and other shrubs in open areas, and the herbaceous layer consisted of a moderate cover of sedges, grasses, and forbs. No wetland communities were observed at or near the Preferred Alternative Site.

4.8.1.1.2 Alternative Site 2

The Tarr Creek Site supports a maintained grassland community adjacent to wetland communities. Grass cover was dominated by fescue (*Festuca* spp.), a common pasture grass, and several spring ephemerals were noted in the few open spaces between grasses. The persistent stems of common prairie forbs such as milkweed (*Aesclepias* spp.) and ragweed

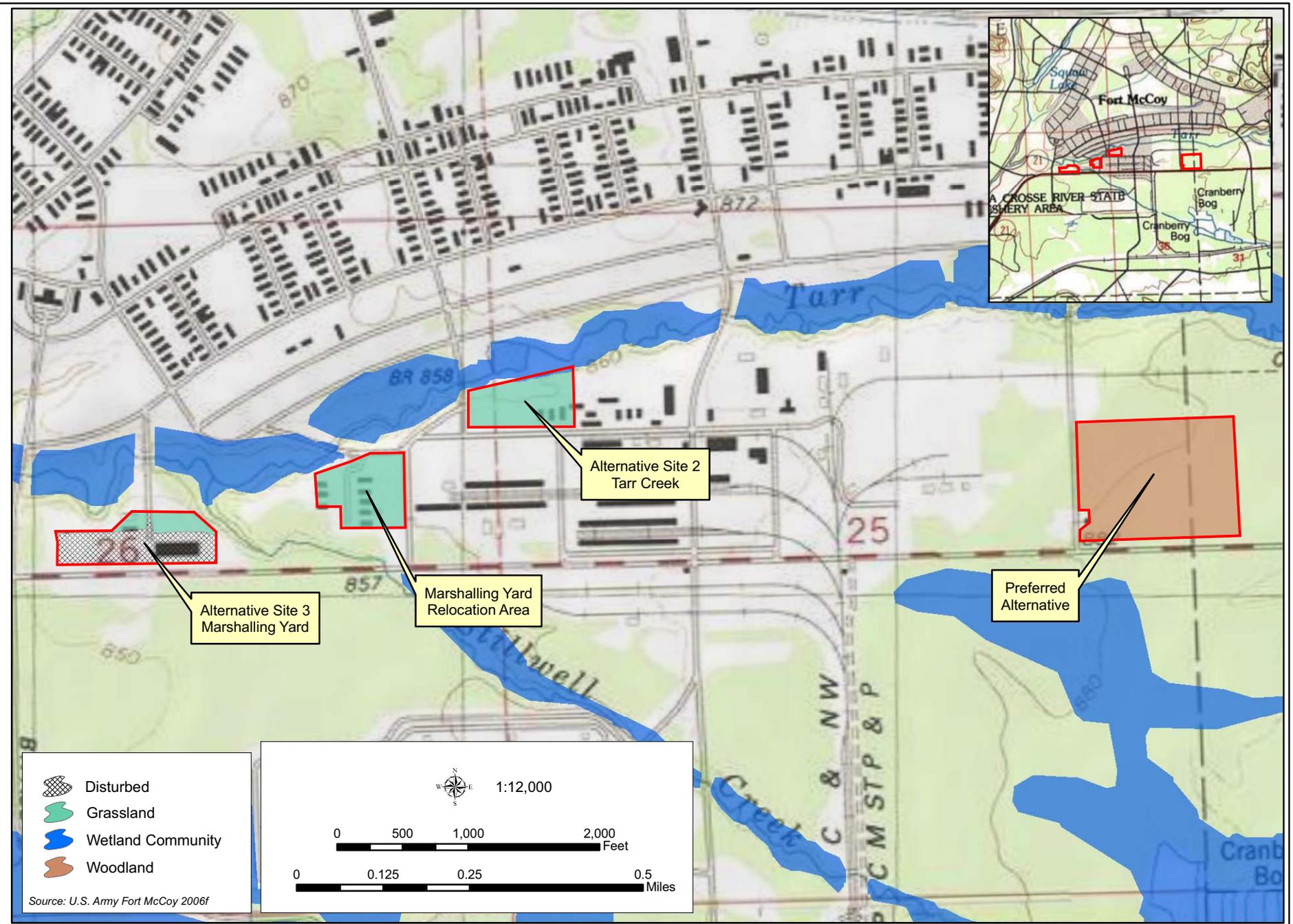


Figure 4-4: Vegetation Communities at the Preferred and Alternative Site Locations

(*Artemesia* spp.) were also noted. This grassland community consisted of a few, relatively common, species and lacked structural elements commonly found in even poor quality prairies.

The maintained grassland found at this site is extremely common throughout the Western Coulee Landscape Unit and does not support sensitive species typical of native prairies or oak savannas. The potential for the Tarr Creek Site to support rare communities and species contributing to regional diversity within the unit is substantially limited by surrounding development and the prolonged alteration of landscape scale and natural processes. Key areas for the conservation of these rare communities have been identified by the WDNR and State Natural Areas have been designated within Fort McCoy to protect these natural resources (U.S. Army Fort McCoy 2006g).

The open wetland area adjacent to the Tarr Creek Site was dominated by a moderate diversity of wetland herbaceous species such as reed canary grass (*Phalaris arundinacea*) and bluejoint grass (*Calamogrostis canadensis*). Typical of wetland communities, these areas supported a relatively high diversity of plant species in comparison to surrounding upland communities. An 82-foot buffer around streams protects these wetland communities from training disturbances (U.S. Army Fort McCoy 2006g).

4.8.1.1.3 Alternative Site 3

The Marshalling Yard and Relocation Area also support maintained, fescue-dominated, grassland communities adjacent to wetland communities. A majority (7 of 9 acres) of the Marshalling Yard Site has been heavily disturbed or has been surfaced and lacks vegetative cover. The Relocation Area supports a small patch of planted shrubs and small trees and appears less frequently maintained, but does not substantially differ from the grassland communities identified at Tarr Creek.

The Tarr and Stillwell creeks' riparian zone support forested, shrub dominated, and open wetland communities of high quality. White pines, oaks, red maples (*Acer rubrum*), shrub species such as alder (*Alnus* spp.) and honeysuckle (*Lonicera* spp.), and a diverse assemblage of spring forbs including skunk cabbage (*Symplocarpus foetidus*, a species indicative of rich, moist woods) were observed in areas with woody cover.

4.8.1.2 Wildlife

4.8.1.2.1 Preferred Alternative Site

Southern dry forest communities similar to that found at the Preferred Alternative Site provide suitable forage and cover for common wildlife species, such as white-tailed deer (*Odocoileus virginianus*), gray squirrel (*Sciurus carolinensis*), raccoon (*Procyon lotor*), song birds, lizards and snakes. As can be seen from Figure 4-4, the forest community at the Preferred Alternative Site is surrounded on the west, north, south and west by various developments but is contiguous with a larger forest community to the east. The site's isolation from other natural communities and edge effects related to its position in the landscape limit the diversity and density of species this community is likely to support. The only wildlife species observed at this site during GSRC surveys was white-tailed deer.

4.8.1.2.2 Alternative Site 2

The grassland communities found at the Tarr Creek Site (Alternative Site 2) are moderately productive and continuous with wetland habitats providing cover suitable for a variety of common wildlife species. The greater herbaceous productivity and structural diversity found at this site make the adjacent wildlife habitat suitable to a somewhat greater diversity and density

of wildlife when compared to the Preferred Alternative Site. However, the suitability of habitat within this site is limited by surrounding development and routine maintenance. Blue-winged teal (*Anas discors*), red-winged blackbird (*Agelaius phoeniceus*), song sparrow (*Melospiza melodia*), eastern bluebird (*Sialia sialis*), and opossum (*Didelphis virginiana*) were the wildlife species observed at this site during GSRC's site visit.

4.8.1.2.3 Alternative Site 3

The large proportion of surfaced areas, fencing, and frequent disturbance found within the Marshalling Yard substantially limit this area's suitability as wildlife habitat. However, the small area of grassland community north of the existing fencing provides habitat similar to the grassland communities described above for Alternative Site 2. Furthermore, the riparian areas along Tarr and Stillwell Creeks provide a higher quality habitat that probably supports a more diverse population of wildlife. Species observed at the Marshalling Yard and Marshalling Yard Relocation Area include spotted towhee (*Pipilo maculatus*), American robin (*Turdus migratorius*), house finch (*Carpodacus mexicanus*), white-throated sparrow (*Zonotrichia albicollis*), mourning dove (*Zenaidura macroura*), meadowlark (*Sturnella* sp.), white-tailed deer, and Plains pocket gopher (*Geomys bursarius*).

4.8.1.3 Sensitive Species

The Endangered Species Act (ESA) was enacted to provide a program for the preservation of endangered and threatened species and to provide protection for the ecosystems upon which these species depend for their survival. All Federal agencies are required to implement protection programs for designated species and to use their authorities to further the purposes of the act. Coordination letters to the USFWS and WNDR were submitted during the preparation of this EA to request input regarding protected species and other natural resources (Appendix B). The USFWS's list of Federally protected species within Monroe County together with the WNDR's Natural Heritage Inventory database of state protected species was cross-referenced with the Fort McCoy Integrated Natural Resources Management Plan (INRMP) (U.S. Army Fort McCoy 2006g) to determine which protected species could potentially occur in the area. The two USFWS endangered species known to occur on Fort McCoy are the gray wolf (*Canis lupus*), and the Karner blue butterfly (*Lycaeides melissa samuelis*). Gray wolves are typically associated with the interior portions of large blocks of forest community, and are highly unlikely to utilize the forest communities within the cantonment area where human activity is high. No populations of lupine (*Lupinus* spp.), a required element of Karner blue butterfly habitat, are known to occur on any of the alternative sites (U.S. Army Fort McCoy 2006g). The single threatened species known to occur on Fort McCoy is the bald eagle (*Haliaeetus leucocephalus*); however, there are no large water bodies capable of supporting bald eagles near any of the alternative project sites. Northern monkshood (*Aconitum noveboracense*), a USFWS threatened plant, is found within Monroe County, but is not known to occur on Fort McCoy (U.S. Army Fort McCoy 2005a).

In addition to these Federally protected species, 13 state endangered species and 20 state threatened species are known to occur on Fort McCoy. A list of all USFWS and state protected species known to occur on Fort McCoy and a brief description of suitable habitat characteristics is provided in Table 4-3. These species are dependent upon large blocks of habitat, large bodies of water or aquatic habitats, fire maintained habitats, or other conditions not present at any of the alternative sites. Although fire management within the forest community could improve habitat suitability for some protected species, the area's small size and proximity to development precludes the use of fire and significantly limits the areas suitability for most protected species.

4.8.1.4 Wetlands

EO 11988 (Floodplain Management) directs Federal agencies to avoid developments within wetlands. Wetlands provide critical ecosystem functions such as flood control and nutrient cycling. Wetlands also typically support a greater diversity of species than surrounding habitats and can serve as travel corridors among distant patches of suitable habitat. Section 404 of the CWA regulates development within wetlands and waters of the U.S. The wetlands associated with Tarr Creek were illustrated previously in Figure 4-3 and are adjacent to or within all sites except the Preferred Alternative Site. These wetlands are within the area of restricted development pursuant to regulations affecting the Tarr Creek floodway.

4.8.2 Environmental Consequences

4.8.2.1 Preferred Alternative

Under the Preferred Alternative, up to 7 acres of forestland would be permanently lost. This vegetation community is common both locally and regionally and is suitable only for the most common wildlife species at low densities. Surrounding development limits potential wildlife management at this site and causes synergistic impacts to adjacent wildlife communities. Noise and construction related disturbance would be temporary and impacts to wildlife would be limited to adjacent forested areas. The Preferred Alternative Site is within the cantonment area, where human disturbance is high relative to other areas on the base; therefore, additional disturbance related to operations of the proposed facilities are not likely to contribute further to any effects on wildlife. No Federal or state protected species, nor wetlands would be impacted by the proposed construction or operation of the NWRRSC at this site. Therefore, the Preferred Alternative would result in minimal impacts to biological resources.

4.8.2.2 Alternative Site 2

Under Alternative 2, up to 7 acres of grassland would be permanently lost, although development at this site would be limited to a distance of approximately 200 feet from wetland habitats to comply with EO 11988 and Fort McCoy's INRMP. This grassland community is extremely common both locally and regionally, is low quality wildlife habitat, and has a low potential for management due to its proximity to development. This site is adjacent to high quality wetland communities and would potentially impact individual specimens associated with this habitat. However, critical elements of the wetland habitat would not be altered and remaining habitat in adjacent areas would be adequate to support any displaced individuals. Noise and construction related disturbance would be temporary and impacts to wildlife would be limited to these adjacent wetland communities. This site is also within the cantonment area and long-term, operations-related disturbance is not likely to affect wildlife above baseline conditions. No Federal or state protected species would be impacted. Therefore, impacts to biological resources as a result of implementation of Alternative 2 would also be minimal.

4.8.2.3 Alternative Site 3

Under Alternative 3, approximately 4 acres of barren areas and grassland communities would be permanently lost at the Marshalling Yard. The remainder of this site (approximately 5 acres) is paved. Development within the Marshalling Yard Relocation Area would impact up to an additional 7 acres of grassland communities. Although this alternative would result in a greater loss of vegetation communities relative to other alternatives, impacts to local and regional biological resources would be minimal and similar to those resulting from Alternative 2.

Table 4-3. List of State and Federal Protected Species on Fort McCoy

Listing	Status	Suitable Habitat Characteristics
Birds		
Trumpeter Swan <i>Cygnus buccinator</i>	SE	An interspersed of open water and marsh habitats
Peregrine Falcon <i>Falco peregrinus</i>	SE	Nest on cliffs and bluffs
Worm-eating Warbler <i>Helmitheros vermivorus</i>	SE	Steep hillsides in large tracts of southern forest
Loggerhead Shrike <i>Lanius ludovicianus</i>	SE	Open grasslands with scattered shrubs
Red-Necked Grebe <i>Podiceps grisegena</i>	SE	Wetlands associated with large waterbodies
Caspian Tern <i>Sterna caspia</i>	SE	Nest on open, unvegetated islands
Forster's Tern <i>Sterna forsteri</i>	SE	Large marshes, estuaries, and lake islands
Common Tern <i>Sterna hirundo</i>	SE	Isolated, sparsely vegetated islands
Bell's Vireo <i>Vireo bellii</i>	ST	Dense vegetation and mid-successional habitats
Henslow's Sparrow <i>Ammodramus henslowii</i>	ST	Undisturbed pastures and meadows
Osprey <i>Pandion haliaetus</i>	ST	Forested areas near lakes and swamps
Red-Shouldered Hawk <i>Buteo lineatus</i>	ST	Bottomland hardwoods, mesic deciduous or mixed deciduous-conifer forests
Yellow Rail <i>Coturnicops noveboracensis</i>	ST	Extensive meadows of "wiregrass" sedge
Cerulean Warbler <i>Dendroica cerulea</i>	ST	Mature mesic deciduous woodlands
Acadian Flycatcher <i>Empidonax vireescens</i>	ST	Large blocks of mature mesic forests
Kentucky Warbler <i>Oporomis formosus</i>	ST	Shrubby woodlands associated with large rivers
Hooded Warbler <i>Wilsonia citrina</i>	ST	Mature mesic and wet mesic forests
Bald Eagle <i>Haliaeetus leucocephalus</i>	FT	Require large waters adjacent to mature forests
Butterflies and Moths		
Frosted Elfin <i>Incisalia irus</i>	ST	Prairie, oak savanna, and jack pine areas with wild lupine
Karner blue butterfly <i>Lycaeides melissa samuelis</i>	FE	Prairie, oak savanna, and jack pine areas with wild lupine

Table 4-3, continued

Listing	Status	Suitable Habitat Characteristics
Mammals		
Timber wolf <i>Canis lupus</i>	ST/FT	Large blocks of northern and central forested areas
Plants		
Bluestem Goldenrod <i>Solidago caesia</i>	SE	Rich deciduous forests
Rough Rattlesnake-root <i>Prenanthes aspera</i>	SE	Dry prairies on lower slopes
Prairie Bush-clover <i>Lespedeza leptostachya</i>	SE	Dry sandy prairies
Purple Milkweed <i>Asclepias purpurascens</i>	SE	Open oak wood edges
Bog Bluegrass <i>Poa paludingena</i>	ST	Wet, mossy woods and alder thickets associated with cold water seepages
Brittle Prickly Pear <i>Opuntia fragilis</i>	ST	Dry sandy prairies and rock outcrops
Dwarf Milkweed <i>Asclepias ovalifolia</i>	ST	Dry to mesic prairies, savannas and woodlands, and southern dry forests
Large Water Starwort <i>Callitriche heterophylla</i>	ST	Aquatic habitats
Prairie Parsley <i>Polytaenia nuttallii</i>	ST	Mesic prairie, persisting in open areas that were savannas
Yellow Gentain <i>Gentiana alba</i>	ST	Thin soil on dry, open woodlands and edges
Shore Sedge <i>Carex lenticularis</i>	ST	Inland pools, rock ledges, and sedge mats
White Champion <i>Silene nivea</i>	ST	Along stream banks of mature mesic forestlands
Amphibians & Reptiles		
Blanchard's Cricket Frog <i>Acris crepitans blanchardi</i>	SE	Areas of low and sparse vegetation adjacent to streams
Eastern Massasauga Rattlesnake <i>Sistrus catenatus catenatus</i>	SE	Wet forests associated with open wetlands
Blanding's Turtle <i>Emydoidea blandingii</i>	ST	Shallow marshy habitats with abundant submerged vegetation
Wood Turtle <i>Clemmys insculpta</i>	ST	Forested habitats adjacent to moderate to fast-flowing waters

ST = State Threatened; SE = State Endangered;
 FT = Fort McCoy Threatened; FE = Fort McCoy Endangered
 (U.S. Army Fort McCoy 2006g, WDNR 2004c)

4.8.2.4 No Action Alternative

Under the No Action Alternative, no new development would occur. Baseline conditions for biological resources as described above would remain unchanged or would improve slightly over time.

4.9 Cultural Resources

4.9.1 Affected Environment

Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, requires Federal agencies to identify and assess the effects of their undertakings on cultural properties included in or eligible for inclusion in the NRHP and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. Federal agencies must consult with the appropriate state and local officials including the State Historic Preservation Officer (SHPO), Indian tribes, applicants for Federal assistance, and members of the public and consider their views and concerns about historic preservation issues. The ACHP is authorized to promulgate such rules and regulations as it deems necessary to govern the implementation of Section 106 in its entirety. Those regulations are contained in the Code of Federal Regulations as 36 CFR Part 800, "Protection of Historic Properties".

Commonwealth Cultural Resources Group, Inc. (CCRG) staff conducted pre-field research associated with the proposed action at Fort McCoy. Pre-field research indicated that there are 17 previously identified archaeological sites located within 1.0 mile of the project areas, including the Marshalling Yard, the Relocation Area, and Alternative 2. Eleven sites contain prehistoric components and eight historic components, with two sites containing both historic and prehistoric components. The majority of the prehistoric components are of unknown cultural affiliation, however, three sites have been identified with Late or Terminal Woodland components, one with a Woodland component, one with a Middle Mississippian component, and one with an Oneota component. Identified prehistoric site types include isolated finds, campsite/villages, and a lithic scatter, while the historic sites are all associated with Euro-American occupation and include cabin/homesteads, historic cultural material scatters, military sites, a dam/earthwork mill/sawmill site, and foundation depression. CCRG subsequently conducted a Level 1 survey of the Alternative Site 2, Alternative Site 3 and the Marshalling Yard Relocation Area. Surveys were completed the first week of May 2006.

4.9.1.1 Preferred Alternative

According to Mr. Stephen Wagner, Fort McCoy Cultural Resources Manager, archaeological surveys were previously conducted at the Preferred Alternative Site. No historic properties were identified during those surveys (Salkin 1990).

4.9.1.2 Alternative Site 2

A prehistoric lithic scatter, was identified in the area of Alternative Site 2. This site was designated by Stephen Wagner as the "SF Tarr Creek Site." The SF Tarr Creek Site produced a low density of artifacts and while there is limited historic disturbance, the integrity of the deposits is suspect due to the sandy nature of the soil matrix, depth of deposits, and presence of excessive rodent disturbance in the area. Given the lack of integrity at the site, it is considered not eligible for the National Register of Historic Places (NRHP) and is not considered an historic property as defined by the NHPA.

4.9.1.3 Alternative Site 3

Alternative Site 3 (Marshalling Yard) was totally disturbed by historic land-use activities. A prehistoric lithic scatter associated with the previously identified 47 Mo-385 site was identified in

the Marshalling Yard Relocation Area. The majority of the area has been heavily disturbed by historic land use. While a portion of the site appears relatively undisturbed, the sandy nature of the soil matrix, depth of deposits, and presence of excessive rodent disturbance in the area make the integrity of the deposits suspect. Given the lack of integrity at this site, it is not considered eligible for the NRHP and is not considered a historic property as defined by the NHPA.

4.9.2 Environmental Consequences

4.9.2.1 Preferred Alternative

The Wisconsin SHPO was consulted during the preparation of this EA (see Appendix B, Correspondence). In addition, an archaeological survey was previously conducted for the Preferred Alternative Site and no historic properties were discovered at this site. Wager (2006) stated that the SHPO has concurred with the findings of these surveys (Salkin 1990) on previous occasions. Section 106 compliance for this project would be completed prior to initiation of construction. As a result, no historic properties, as defined by the NHPA, would be impacted by implementation of the Preferred Alternative. There is always the possibility of inadvertent discovery of deeply buried cultural materials during construction that were not identified during the archaeological field investigations. If any cultural material is uncovered, the construction manager should halt all activities and notify the Fort McCoy staff archaeologists.

4.9.2.2 Alternative Site 2

The impacts under Alternative Site 2 would be the same as those under the Preferred Alternative. No cultural resources were identified during the May 2006 surveys that would be considered eligible for the NRHP or considered to be historic properties as defined by the NHPA. There is always the possibility of inadvertent discovery of deeply buried cultural materials during construction that were not identified during the archaeological field investigations. If any cultural material is uncovered then the construction manager should halt all activities and notify the Fort McCoy staff archaeologists.

4.9.2.3 Alternative Site 3

The impacts under Alternative Site 3 would be the same as those under the Preferred Alternative. No cultural resources were identified that would be considered eligible for the NRHP or considered to be historic properties as defined by the NHPA. There is always the possibility of inadvertent discovery of deeply buried cultural materials during construction that were not identified during the archaeological field investigations. If any cultural material is uncovered then the construction manager should halt all activities and notify the Fort McCoy staff archaeologists.

4.9.2.4 No Action Alternative

Under the No Action Alternative, construction would not occur at any of the sites and, therefore, cultural resources would not be impacted.

4.10 Socioeconomic Resources

4.10.1 Affected Environment

As indicated previously, the area surrounding Fort McCoy is largely rural and undeveloped. Monroe County is one of 72 counties in Wisconsin. It is not part of a Metropolitan Area. Its 2004 population of 42,249 ranked 34th in the state. Of the 21,157 individuals in the labor force, 355 of them are listed in the Armed Forces (Bureau of Economic Analysis [BEA] 2004).

In 2004, Monroe County had a per capita personal income (PCPI) of \$25,161. This PCPI ranked 50th in the state and was 78 percent of the state average (\$32,166) and 76 percent of the National average of \$33,050. The 2004 PCPI reflected an increase of 6.2 percent from 2003. The 2003-2004 state change was 4.9 percent and the National change was 5.0 percent. In 1994 the PCPI of Monroe was \$16,462 and ranked 53rd in the state. The 1994-2004 average annual growth rate of PCPI was 4.3 percent. The average annual growth rate for the state was 4.2 percent and for the Nation was 4.1 percent (BEA 2004).

In 2004, Monroe County had a total personal income (TPI) of \$1 billion. This TPI ranked 36th in the state and accounted for 0.6 percent of the state total. In 1994 the TPI of Monroe County was over \$6 million and ranked 37th in the state. The 2004 TPI reflected an increase of 7.6 percent from 2003. The 2003-2004 state change was 5.5 percent and the National change was 6.0 percent. The 1994-2004 average annual growth rate of TPI was 5.2 percent. This was above the average annual growth rate for the state (4.9 percent) and even with the National average of 5.2 percent (BEA 2004).

The major employment in Monroe County is the manufacturing industry, followed by educational, health and social services, and retail trade. There are 13,635 private wage earners; 3,878 government workers; and 2,133 individuals who are classified as self-employed (U.S. Census Bureau 2000).

The U.S. Census Bureau (2000) shows that of the 16,672 total housing units in Monroe County, 15,399 are occupied, with 11,354 being owner-occupied and 4,045 renter-occupied. The remaining 1,273 housing units in Monroe County are vacant.

4.10.2 Environmental Consequences

4.10.2.1 Preferred Alternative

The proposed establishment of the NWRRC and the realignment of the 84th ARRTC would result in the net loss of about 280 military personnel and a net gain in about 50 private employees. To assess the impacts of the proposed action, the Army's Economic Impact Forecast System (EIFS) was used to model the effects to employment, income and population. The results are presented in Appendix C and summarized below.

The EIFS analyses indicated that the proposed action would produce no major socioeconomic effects in the region of influence (ROI). Income and employment would be expected to see a decrease of less than 1 percent, although business sales volumes would be expected to see a slight increase. As indicated above, there is more than adequate housing available within the ROI.

4.10.2.2 Alternative Site 2

The impacts to socioeconomic resources in the ROI would be the same as those described for the Preferred Alternative.

4.10.2.3 Alternative Site 3

The impacts to socioeconomic resources in the ROI would be the same as those described for the Preferred Alternative.

4.10.2.4 No Action Alternative

Under the No Action Alternative, socioeconomic conditions would remain status quo.

4.11 Transportation

4.11.1 Affected Environment

Numerous modes of transportation are available at Fort McCoy including air, rail and highway access. The Fort McCoy Airfield merged with the Sparta Municipal Airport in 1987 to reduce the danger of having two airfields within 1 mile of each other. The airfield has two runways, one orientated north-south and one east-west. The airport provides support for military aircraft and general aviation. In addition, the Volk Field Air National Guard Base, located about 26 miles southeast of Fort McCoy off Interstate Highway 90 (I-90), also provides Fort McCoy with air support, if required. No commercial flight operations are available at the Fort McCoy/Sparta Airfield (U.S. Army Fort McCoy 2006g).

Fort McCoy is served by many state and local roads (Figure 4-5). State Highway 21 bisects Fort McCoy into roughly equal portions, termed South Post and North Post. The main gate is located off Highway 21. I-90 bisects Fort McCoy at the southern edge of south post with the closest off ramp at the west side of the installation onto State Highway 16 that runs parallel to I-90. Both Highway 16 and Highway 21 connect Fort McCoy with the nearest towns of Sparta to the southwest and Tomah to the southeast (U.S. Army Fort McCoy 2006g).

The cantonment area at Fort McCoy has a dense network of paved roads while the range and training areas are served by main supply routes. Many of the main supply routes have been “chip sealed” to reduce maintenance costs associated with gravel roads and decrease the amount of dust caused by vehicles. Since 1994, two north-south access roads were constructed to increase convoy movement between North and South Post, avoiding the cantonment and housing areas. The training areas are also served by a network of tank trails and unimproved woods trails (U.S. Army Fort McCoy 2006g).

Fort McCoy is served by the Canadian Pacific Railroad with tracks running east-west through South Post. Fort McCoy has its own switching engine to move rail cars within the installation. The Fort McCoy rail line accesses the Canadian Pacific Railroad and provides service to the industrial and warehouse areas near State Highway 21. Fort McCoy has an engine house for storing and servicing the switch engine (U.S. Army Fort McCoy 2006g).

4.11.2 Environmental Consequences

4.11.2.1 Preferred Alternative

Construction of the NWRRC would have no effect on regional rail or air service. Vehicle traffic on post would be increased during the 1.5- to 2-year construction period, primarily along South 8th Avenue and South O Street. Vehicle traffic off-post would increase along Highway 21 from Tomah and Sparta as construction crews and equipment commute to and from the construction site. Most equipment would be left on-site to alleviate off-post traffic.

Operation of the NWRRC would also create minor to moderate increases to post vehicle traffic, especially during the interim period prior to the 84th ARRTC’s realignment to Fort Knox. Congestion would occur primarily along South 8th Avenue and South O Street, particularly during the summer months when training activity is the highest. Once the 84th ARRTC is realigned, vehicle traffic would be reduced, but would still be increased in comparison to pre-project levels.

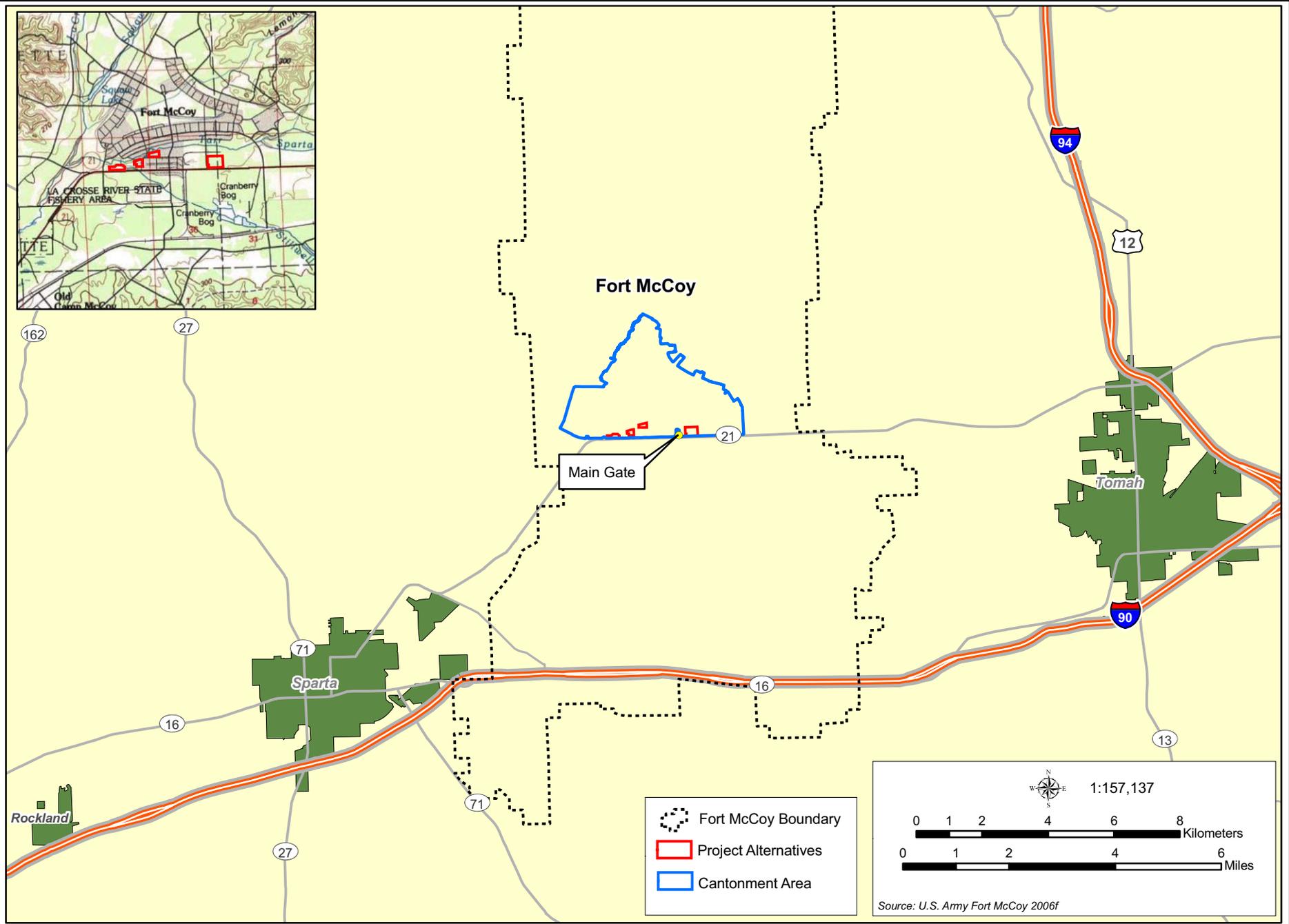


Figure 4-5: Transportation Routes Surrounding Fort McCoy

4.11.2.2 Alternative Site 2

Impacts to transportation at the Tarr Creek Site would be similar to those described under the Preferred Alternative. However, the increased vehicle traffic would be a greater inconvenience to other installation employees and visitors because the construction crews and equipment would have a much longer route along South 8th Avenue to access the construction site.

4.11.2.3 Alternative Site 3

Impacts under this alternative would be similar to those described under the Preferred Alternative. However, traffic on post could be minimized at this site because it is adjacent to the Sparta Gate, which could be opened for construction crews and equipment. Operation of the NWRRC would require that the Sparta Gate be permanently re-opened and maintained, which would increase AT/FP demands.

4.11.2.4 No Action Alternative

Under the No Action Alternative, there would be no effect to vehicle traffic on or off-post. Air and rail service would be maintained at status quo.

4.12 Utilities

4.12.1 Affected Environment

4.12.1.1 Potable Water Supply

Fort McCoy obtains its potable water from 12 different wells dispersed across the installation. The wells have been installed in the Upper Cambrian sandstone at depths ranging from 60 feet (for low capacity wells) to 200 feet (for high capacity wells). Wells that have been installed in this aquifer reliably produce 200 to 500 gallons per minute (gpm) and yield water that is generally good; however, iron and other corrosive constituents are sometime high enough to require treatment. The supply and quality are considered adequate to meet present and future regional demands (USACE 1994, U.S. Army Fort McCoy 2005a, U.S. Army Fort McCoy 2006b).

4.12.1.2 Wastewater System

Fort McCoy operates a waste water treatment plant under WPDES Permit Number WI-0022420, which expires on 31 March 2008. There have been no reports that the permit limits have been exceeded (USACE 1994, WDNR 2006a).

4.12.1.3 Storm Water System

Fort McCoy finalized its SWPPP in May 1994, which identified the BMPs and other actions the installation would take to reduce the amount of water pollution that occurs from storm water runoff from industrial areas into public waters. The plan was updated to include major construction projects added since 1994. In 1997, the WDNR issued Fort McCoy an operating permit as required by the Federal CWA (U.S. Army Fort McCoy 2006e).

4.12.2 Consequences

4.12.2.1 Preferred Alternative

Construction and operation of the proposed NWRRC facility at the preferred location would have temporary and minimal effects on Fort McCoy's potable water supply, wastewater treatment system and storm water discharges. Construction crews would bring water on-site for their personnel, and portable latrines would collect sanitary waste. Since the site is greater than 1 acre, a WPDES Storm Water Discharge Permit would be required prior to construction. This permit would require that a SWPPP and Notice of Intent be prepared and filed with the EPA

through the WDNR. The SWPPP would identify BMPs that are required to be implemented to control storm water erosion and runoff from the site and sedimentation into downstream areas. Upon completion of the construction activities, all disturbed areas that are not going to be landscaped and routinely maintained should be reseeded with native vegetation, in compliance with Section 7(c)(1) of the ESA and the installation's INRMP.

During the time that the 84th ARRTC and the NWRRSC troops are both stationed at Fort McCoy, there would be a slight increase in the demands on water supply and waste water treatment systems. Both systems have ample capacity to accommodate the increased demands. Once the 84th ARRTC realigns to Fort Knox (in FY 08), the water supply and waste water treatment demands would return to or fall below the current conditions.

4.12.2.2 Alternative Site 2

The same impacts as discussed under the Preferred Alternative would occur if the Tarr Creek site were selected for the construction and operation of the NWRRSC. However, due to the proximity of the site to Tarr Creek, there would be a greater potential for storm water erosion and sedimentation during and after construction. Engineering designs would have to take into consideration the steep hillside on the northern side of this site, which drains into Tarr Creek, and ensure that storm drains are properly designed with erosion control measures such as water bars, rip rap, and other energy dissipaters.

4.12.2.3 Alternative Site 3

If Alternative Site 3 were selected for the construction and operation of the NWRRSC, the impacts to water supply and waste water treatment systems would be the same as described for the Preferred Alternative. However, because the Marshalling Yard would need to be relocated, the potential to affect storm water discharges would be greater. Both the Alternative Site 3 and the Marshalling Yard Relocation Site are in proximity to Stillwell Creek, which could receive additional sedimentation loads if BMPs are not properly installed and maintained.

4.12.2.4 No Action Alternative

Under the No Action Alternative, no construction of the NWRRSC facility would occur; thus, no effects would occur to the installation's storm water system or existing discharges. Furthermore, no additional demands, temporary or long-term, on Fort McCoy's water supply or waste water treatment systems would occur under this alternative.

4.13 Hazardous and Toxic Substances

4.13.1 Affected Environment

Fort McCoy's Directorate of Support Services (DSS) is the organization responsible for ensuring that all installation activities related to operations, training and construction comply with all applicable Federal, state and local environmental laws and regulations. The DSS Environmental Branch coordinates and executes environmental programs for Fort McCoy (WDNR 2005). Fort McCoy is classified as a large quantity generator (LQG) of hazardous waste. A LQG generates more than 2,200 pounds (lbs) of hazardous waste or more than 2.2 lbs of acute hazardous waste per calendar month. As a LQG, Fort McCoy must comply with the full set of Federal hazardous waste regulations (EPA 1996). Fort McCoy has developed a comprehensive environmental management program to achieve significant reductions in hazardous waste and toxic substances by implementing recycling programs, material substitutions, source reduction and process modifications (WDNR 2005).

Fort McCoy also has two Installation Action Plans (IAPs) that address hazardous and toxic substance remediation. The Compliance-Related Cleanup IAP outlines the total multi-year Installation Compliance-Related Cleanup Program for the installation. The plan identifies environmental cleanup requirements at each area of concern, and proposes a comprehensive approach to conduct investigations and necessary remedial actions (U.S. Army Fort McCoy 2006h).

The Compliance-Related Cleanup IAP has confirmed on-post soil, groundwater and surface water contamination. Contaminants of concern are volatile organic compounds, total petroleum hydrocarbons, and arsenic. Due to actual site locations, off post migration of contaminants has not occurred. Furthermore, Fort McCoy is in compliance with state and Federal regulations (U.S. Army Fort McCoy 2006h).

The other IAP is the Defense Environmental Restoration Program (DERP). Fort McCoy formerly operated a hazardous waste management facility which was jointly permitted by U.S. EPA and Wisconsin Department of Natural Resources (WDNR) under the Resource Conservation and Recovery Act (RCRA) for hazardous waste storage. The joint permit identified solid waste management units (SWMU) needing investigation and possible remediation. The investigation identified which sites needed to be closed, have sampling eliminated, or monitoring reduced (U.S. Army Fort McCoy 2006a).

There are no known sources of hazardous materials/wastes or toxic substances on any of the alternative sites. According to the Installation Restoration Program (U.S. Army Fort McCoy 2006a), there are no environmental remediation orders or agreements at this time applicable to the sites being considered for new construction. Furthermore, none of the sites considered for the proposed action are undergoing investigation or cleanup under any Compliance-Related Cleanup plan. Potential hazardous waste contaminated sites located near the alternative sites are shown in Figure 4-6.

4.13.1.1 Uses of Hazardous Materials

There are no hazardous materials currently being used at any of the proposed alternative sites.

4.13.1.2 Storage and Handling Areas

Fort McCoy currently operates a 90-Day Hazardous Waste Storage Facility. All hazardous materials and wastes associated with project operations would continue to be managed in accordance with all Federal, state and local regulations, as well as existing Army regulations and procedures. AR 200-1 (U.S. Army 1997) provides guidelines for the handling and management of hazardous materials to ensure compliance with Federal, state, and local laws.

4.13.1.3 Hazardous Waste Disposal

There are no hazardous or toxic materials currently being used at any of the proposed alternative sites. If a Phase I Environmental Baseline Survey (EBS) revealed hazardous wastes at any of the alternative sites, the wastes would be disposed of in accordance with all Federal, state and local regulations, as well as existing Army regulations and procedures. AR 200-1, Section 4.3 discusses disposal of hazardous materials.

4.13.1.4 Site Contamination and Cleanup

Upon completion of a Phase I EBS, if contamination is found in the area of the proposed BRAC-related construction, the Department of Army Garrison at Fort McCoy would initiate interagency coordination with WDNR and EPA to negotiate any clean-up requirements as needed.

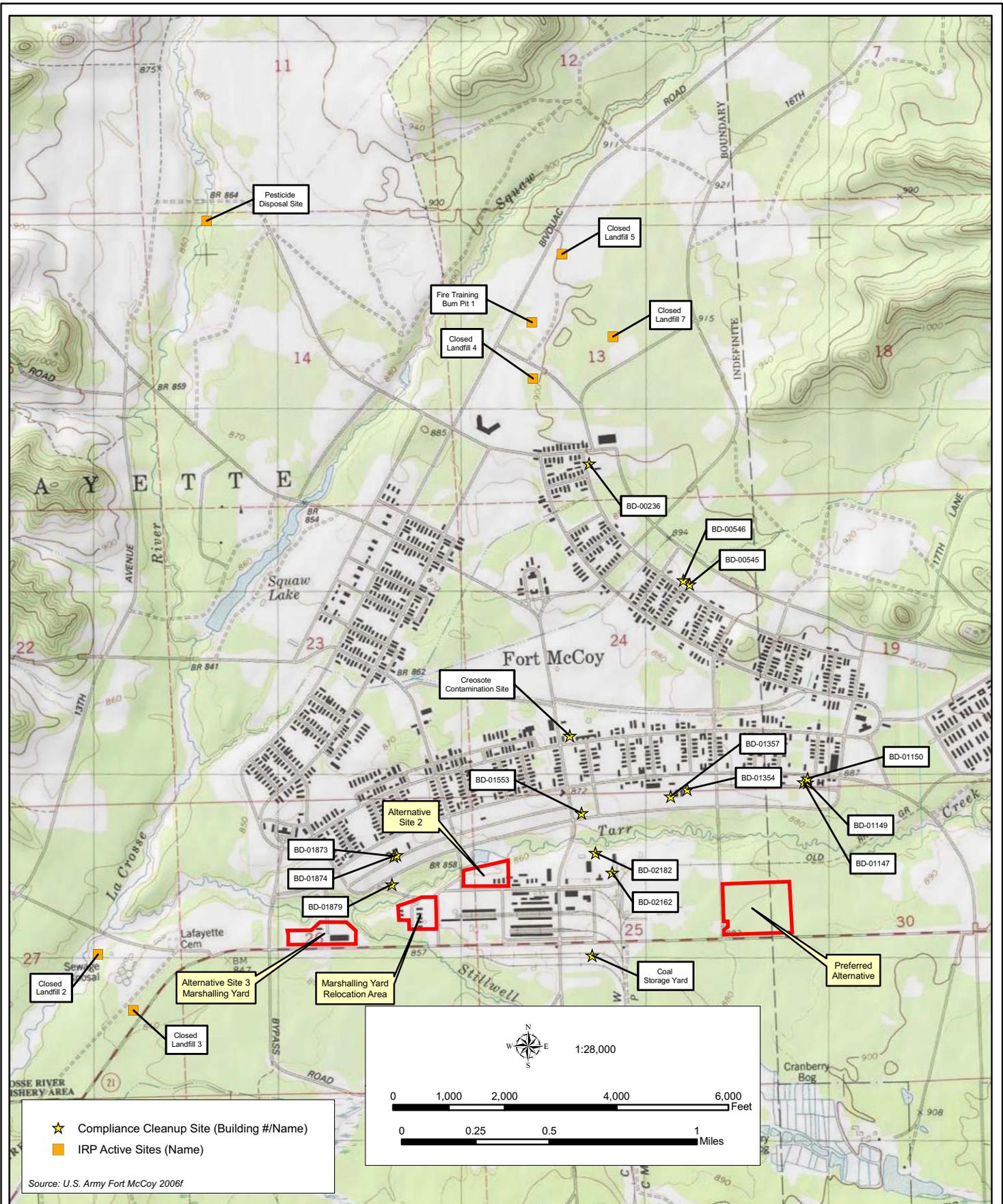


Figure 4-6: Compliance Cleanup and IRP Sites near the Preferred and Alternative Site Locations



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4.13.1.5 Special Hazards

There are no known special hazards associated with any of the alternative sites.

4.13.2 Environmental Consequences

4.13.2.1 Preferred Alternative

Implementation of the construction activities associated with the Preferred Alternative could potentially result in a small and temporary increase in the volume of hazardous materials used and hazardous wastes generated; however, any such increase would be minimal and could be accommodated by current installation facilities during construction of the new facility. Construction and operation of the proposed facilities would not have a significant impact on the handling, storage, and disposal of hazardous materials and wastes at the installation. The 90-Day Hazardous Waste Storage Facility currently located at Fort McCoy is of adequate size and has sufficient capacity to support on-going mission requirements and enhance safety and operational efficiency. Hazardous materials and wastes associated with the Preferred Alternative would be managed in accordance with all Federal, state and local regulations, as well as existing Army regulations and procedures. Therefore, impacts to current hazardous waste management operations at Fort McCoy would not be significantly impacted by the Preferred Alternative.

4.13.2.2 Alternative Site 2

Due to the proximity of the site to the floodplain and Tarr Creek, there is the potential for petroleum, oils, and lubricants (POL) associated with construction to migrate off site into the creek. However, before construction starts, a WPDES permit would be applied for and a SWPPP would be implemented. Using BMPs, the environmental consequences of this action alternative would be the same as that of the Preferred Alternative in regards to hazardous and toxic substances.

4.13.2.3 Alternative Site 3

Storm water runoff from the Marshalling Yard is channeled into Tarr Creek; therefore, there is the potential for POLs associated with construction to migrate off-site into the creek. Furthermore, the Marshalling Yard Relocation Site is in proximity to both Stillwater and Tarr creeks. However, before construction starts, a WPDES permit would be applied for and a SWPPP would be implemented. Using BMPs the environmental consequences of this action alternative would be the same as that of the Preferred Alternative in regards to hazardous and toxic substances.

4.13.2.4 No Action Alternative

Under the No Action Alternative, the new NWRRC facility and adjacent storage building would not be built. There would be no impacts associated with hazardous or toxic substances.

4.14 Cumulative Effects Summary

This section of the EA addresses the potential cumulative impacts associated with the implementation of the alternatives and other projects/programs that are planned for the region. The CEQ defines cumulative impacts as the incremental impact of the proposed action added to the impact of other past, present, or reasonably foreseeable actions. Individually minor actions can have collectively significant effects. Cumulative impacts can be concisely defined as the total effect of multiple land uses and developments, including their interrelationships, on the environment.

Fort McCoy has been a military installation since 1909 and has continuously been developed as DoD missions, organizations, needs, and strategies have evolved. Development and operation of training ranges have impacted thousands of acres with synergistic and cumulative impacts to soil, wildlife habitats, water quality, and noise. Beneficial effects, too, have resulted from the operation and management of Fort McCoy including, but not limited to, increased employment and income for Monroe County and its communities, protection of endangered species such as the Karner blue butterfly, consumptive and non-consumptive recreation opportunities, and increased knowledge of the pre-history of the region through numerous cultural resources surveys and management plans.

With the continued funding and implementation of the installation's INRMP, Integrated Cultural Resources Management Plan (ICRMP), Installation Restoration Plan (IRP) and Master Plan, adverse impacts due to future and on-going projects would be avoided or minimized. Such projects include the recent (2005) development of the Water Crossing Engineer Training Site at Sandy Lake, the proposed restoration of the Young Assault Landing Strip (2006), and the proposed construction of 124 housing units on post (2005-2006). The latter project is proposed for the cantonment area, within previously disturbed sites and would alleviate some of the projected deficit of on-post housing that would occur during the overlap between the NWRRC and the realignment of the 84th RRC to Fort Knox.

The Water Crossing Engineer Training Site would impact 6 acres of forest and scrub/shrub communities and the access road to the site would impact about 4.5 acres of forest and open grasslands. Approximately 0.75 acres of jurisdictional wetlands would be impacted and require compensatory mitigation by creating or restoring 1.5 acres of wetlands (U.S. Army 2005).

The Young Assault Landing Strip would impact approximately 64 acres of forest and open land due to the runway renovations. Approximately 0.2 acre of habitat containing lupine, one of the primary constituent elements for the Karner blue butterfly, would also be impacted; Section 7 consultation would be completed to determine what, if any, conservations measures are required to off-set these impacts. Noise would be increased during the construction; no long-term increases are expected (U.S. Army Fort McCoy 2006b).

The proposed housing units are still in the planning stages, but are expected to be constructed within previously disturbed sites in the cantonment and family housing areas. Thus, no new ground disturbances would be anticipated.

In addition to these recent projects, a Logistics Support Center and General Purpose Warehouse is proposed for 2007. The Public Safety Center, Non-Commissioned Officer (NCO) Academy and Commissary are scheduled for construction in 2006. Thirteen Family Housing Units are scheduled for 2009 and the remainder in 2010. A Combined Arms Collective Training Facility is scheduled for 2010. The on-going and planned military construction (MILCON) projects, in addition to this BRAC action, are presented in Table 4-4. These and other MILCON projects have been or would be evaluated under separate NEPA analysis.

All of these MILCON projects are proposed for construction within the cantonment or family housing areas of Fort McCoy and within previously disturbed areas. As indicated in Table 4-4, approximately 237,000 SF of additional facility space is proposed for construction during the next 2 years. Assuming parking and other associated facilities would require the same amount of space as these facilities, the total disturbed area would be approximately 11 acres. These MILCON projects are expected to cost nearly \$37 million, which will result in cumulative socioeconomic beneficial impacts to the ROI.

Table 4-4. Fort McCoy On-going and Future MILCON projects

Project No.	Project	Project Description	Project Scope
FY 06-07 Projects			
11272	Public Safety Center & Comm Tower	Construct a replacement facility for current Directorate of Protective Services Center in conjunction with a new installation communications tower	13,300 SF
11422	NCO Academy - PLDC training fac., billets, maintenance bldg. Addition, admin. Bldg., storage bldg., and dining facility (Strategic Business Plan Proj)	Construct a consolidated replacement campus for expanding NCO Academy operations (Phase 1)	65,223 SF
10822	General Purpose Warehouse	Construct a std. Design General Purpose Warehouse for Ft. McCoy to replace current WWII wood facilities in 2100 Blk.	80,000 SF
10937	RTS Med Classroom Facility	Construct administrative, training, and training support facilities	30,000 SF
11423	NCO Academy - ANOC, BNOC, BSC, FSC training bldg. And billets (Strategic Business Plan Proj)	Construct a consolidated replacement campus for expanding NCO Academy operations (Phase 2)	118,484 SF
FY 08-09 Projects			
11733	Central Issue Facility	Construct a replacement facility for current WWII wood warehouse facility	37,535 SF
11790	Operational Readiness Training Center	Provide reserve component billets and all supporting facilities specifically designed to support reserve component/MOB related training	235,000 SF
10821	Reserve Component Barracks	Provide 168 room reserve component billet including storage room	30,000 SF
TBD	Reserve Component Dining Facility	Battalion-sized dining facility to serve four reserve component barracks	14,000 SF
11978	Joint Armed Forces Training Complex	Provide administrative facilities and all supporting facilities for permanent training support mission	70,000 SF
FY 10 and Beyond Projects			
	NCOA Dining Facility (PH III)	Provide final phase of NCOA Academy	13,197 SF
11979	Transportation Complex	Construct a receiving facility for incoming mail and freight for screening and security.	18,000 SF
11831	Container Loading Facility/Rail Loading Complex	Construct a container loading facility to improve mobilization operations (PPP)	NA
11827	MUIC	Construct a mobilization unit inprocessing center (PPP)	13,400 SF
11828	Soldier Readiness Center	Construct an SRC to support mob/de-mob operations (PPP)	25,000 SF
11391	Elec Power/Fiber Opt Ranges	Construct a live-fire shoothouse to support light infantry and urban combat training (\$776 OPA)	NA
10946	DOIM Information Technology Facility	Construct a replacement facility for current WWII wood converted barracks building	20,000 SF

Table 4-4, continued

Project No.	Project	Project Description	Project Scope
TBD	Public Works Complex	Construct a PW complex. This will clear the current old buildings from the rail head area.	34,000 SF
Long Range Unprioritized Projects			
10857	RMO/ACA/DSS Complex	Construct an administration building to house resource management and contracting	40,000 SF
TBD	Consolidated Training Aids and Devices Complex (TSC & MILES)	Construct a facility for the storage and management of training equipment	20,000 SF
11830	ADAG / APOE	Construct operations buildings at Volk Field	TBD
52079 (PAX)	Youth Service Center	NAF PROJECT	NA
57072 (PAX)	13 Homes (Replacements)	AFH PROJECT	NA
62502 (PAX)	111 Homes	AFH PROJECT	NA
10819	Unaccompanied Quarters	Construct standard BOQ	24,000 SF
11832	Company Size Classroom/Admin Fac	Provide AT/MUTA facilities which are currently lacking	7033 SF
TBD	Reserve Component Barracks	Provide 168 room reserve component billet including storage room	30,000 SF
11826	Company Maintenance Building	Construct a replacement facility for current WWII wood warehouse facility	7,200 SF
59335 (PAX)	Chapel	Construct a replacement facility for current WWII wood warehouse facility	17,211 SF
10824	DTMS HQ w/EOC	Construct an Installation Headquarters building	10,000 SF
10825	TASC	Construct replacement TASC	11,000 SF
10841	Installation HQ	Construct an Installation Headquarters building	20,000 SF

Source: Lewis 2006 NA = not available TBD = to be determined

During FY 08 through FY 09, an additional 535,000 SF of buildings would be funded or constructed. The majority of this construction would occur for the NCO Academy and the Operations Readiness Training Center. Again, assuming parking and other facilities associated with these MILCON projects would require the same amount of area, the total disturbed area would be approximately 24 acres. These projects are expected to cost over \$119 million.

MILCON projects that are planned beyond FY 10 or have been identified as long-range planning projects would require over 310,000 SF and over 14 acres, including parking and other associated facilities. The planning estimates for these long-range projects identify the anticipated costs over \$120 million.

The proposed construction and operation of the NWRRC would increase the disturbed areas that would not be landscaped or regularly maintained on Fort McCoy by 7 acres, if the Preferred Alternative Site is selected. This action, combined with the other actions presented in Table 4-4 would impact a maximum of 56 acres; the majority of these impacts would be expected to occur within the cantonment area or other areas that have been previously disturbed. Combined with the on-going projects of the assault strip, water crossing site, and housing developments, the

total amount of land anticipated to be altered in the reasonably foreseeable future is less than 200 acres. Given the vast amount of land (60,000 acres) available on Fort McCoy, alteration of 200 acres (or less than 0.4 percent) would be considered an insignificant cumulative impact. Selection of either of the other two sites would not cause cumulative effects relative to disturbed vegetation or soils as these areas have all been developed previously.

The construction activities of the NWRRSC and these other projects would have moderate cumulative beneficial impacts within the ROI. The expenditure of over \$300 million in the next 5 years would provide additional employment opportunities, increased sales taxes, and increased personal income throughout Monroe County.

Operation of the NWRRSC at any of the alternative sites would not result in significant cumulative impacts to training ranges or air space, ambient noise levels, water quality or supply, air quality, or transportation routes or demands, or any other resources.

4.15 Mitigation Summary

This section of the EA describes those measures that could be implemented to reduce or eliminate potential adverse impacts to the human and natural environment. The mitigation measures are presented for each resource category that could be potentially affected. The proposed mitigation measures would be coordinated through the appropriate agencies and land managers and administrators.

4.15.1 Vegetation and Wildlife

Disturbed sites would be utilized to the maximum extent practicable for construction and construction support activities. Native seeds or plants, which are compatible with the enhancement of protected species, would be used to the extent feasible to reseed disturbed areas once construction is complete, as required under Section 7(c)(1) of the ESA and to comply with the installation's INRMP. If the Preferred Alternative Site is ultimately selected, a vegetation buffer should be allowed to remain between the facility and Highway 21 to ameliorate visual impacts and provide a travel corridor for wildlife.

If possible, all timber on the Preferred Alternative Site should be harvested rather than cleared. Timber sales or a deposit to Fort McCoy's forestry account is required to compensate for the loss of commercial timber. Cutting, pruning or otherwise damaging oak trees should be avoided between April 15 and August 1 to reduce the potential spread of oak wilt.

The Migratory Bird Treaty Act (MBTA) requires that private contractors obtain a construction permit if the clearing and grubbing is scheduled during the nesting season (May through August). Surveys would have to be performed to identify active nests, which would have to be avoided to the extent practicable. Another mitigation measure that would be considered is to schedule all clearing and grubbing outside the nesting season.

Additional mitigation measures would include BMPs, as described previously, during construction to minimize or prevent erosion and soil loss. If straw bales are used as part of the BMPs, weed seed-free straw bales should be used to eliminate the potential of spreading invasive species.

4.15.2 Air Quality

As mentioned previously, emissions associated with construction activities would be insignificant and well below *de minimus* thresholds, regardless of the alternative selected. Proper and routine maintenance of all vehicles and other equipment would be implemented to

ensure that emissions are within the design standards of all construction equipment. Dust suppression methods would be implemented to minimize fugitive dust. Fort McCoy will also continue to investigate methods to further reduce the installation's overall emissions.

4.15.3 Water Resources

The proposed construction activities would require a SWPPP, which would be prepared and submitted to the WDNR and EPA, as part of the WPDES permit process. The SWPPP would identify BMPs that would be implemented before, during, and after construction.

4.15.4 Cultural Resources

All Section 106 consultations shall be completed prior to any construction activities taking place. If any cultural resources are uncovered during construction, the Wisconsin SHPO would be notified and all construction activities would stop until a qualified archaeologist can assess the significance of the cultural remains.

4.15.5 Hazardous and Toxic Substances

Hazardous and toxic materials/wastes in the project area during construction would likely consist of POL. If hazardous waste is generated, it would be disposed of according to Federal, state and local regulations, as well as existing Army regulations and procedures. No maintenance to construction equipment would be conducted on-site, minimizing the potential for spills or direct contact with POLs. Equipment and vehicles parked overnight, or left for lengthy periods on site, would be fitted with drip pans. On-site use of construction equipment, use of chemical products, and wastes generated during construction would comply with all Federal, state, and local regulations relating to protecting the environment from hazardous materials and containing spills. No hazardous wastes would be stored on the site. There would be a Site Specific Spill Plan that describes what actions should be taken in case of a hazardous or toxic spill.

SECTION 5.0
FINDINGS AND CONCLUSIONS

5.0 FINDINGS AND CONCLUSIONS

5.1 Findings

5.1.1 Consequences of the Preferred Alternative

The proposed action at the preferred location would result in the permanent conversion of 7 acres of forest to hard surfaces and buildings. The conversion is consistent with the installation's land use policies and guidelines. The loss of 7 acres of forest would be insignificant compared to the remaining forest land within and surrounding Fort McCoy. No impacts to Federal or state protected species would occur. No violations of the installation's air or water quality permits would be expected; BMPs would be implemented to ensure storm water during and after construction is controlled and downstream sedimentation is either eliminated or is negligible. Temporary increases in noise and vehicle traffic would be expected during the construction and in the short period during which both the NWRSC and the 84th ARRTC are collocated on post; however, once the 84th ARRTC is realigned to Fort Knox, noise would return to or below current conditions. Traffic congestion on the east side of the post, near the main gate, would be increased, especially during peak exit hours. Slight benefits to local and regional employment and personal income would be expected during the construction; however, due to the reduction in military personnel, long-term insignificant adverse impacts to the region's economy would occur. No long-term significant impacts relative to utilities or hazardous waste and materials would be expected from the proposed construction and operation of the NWRSC. A summary of the potential effects from the Preferred Alternative and the other two siting alternatives is presented in Table 5-1.

The cumulative effects of the proposed action and other planned or reasonably foreseeable projects on Fort McCoy would also be considered insignificant. The total amount of land that would be impacted by the proposed action, on-going projects and future projects would be less than 200 acres and would occur primarily within previously disturbed areas. Local expenditures required by the construction projects would result in moderate beneficial impacts to the ROI within the next 5 years.

5.1.2 Consequences of Other Alternatives

Similar impacts as described for the Preferred Alternative would be anticipated if the proposed construction were to occur at either of the alternative sites. However, selection of the Alternative 3 Site would require that the extant Marshalling Yard be relocated to the Marshalling Yard Relocation Area, which would effectively double the amount of ground of disturbance and the concomitant impacts. Still, the disturbance of up to 16 acres would be considered insignificant given the total area available on Fort McCoy and the lack of sensitive resources (e.g., wetlands, cultural resources, and protected species) at either location.

5.1.3 Consequences of the No Action Alternative

Under the No Action Alternative, the existing human and natural environment at Fort McCoy would remain status quo, at least for the short term. Since the area is under DoD control and managed for military training and other missions, there is a possibility that any or all three of the alternative sites could be developed at some point in the future.

Table 5-1. Summary Matrix of Potential Impacts

Affected Resource	No Action Alternative	Preferred Alternative	Alternative Site 2	Alternative Site 3
Land Use	No impacts to land use are expected.	Approximately 7 acres of oak/pine forest would be converted to the facility and parking areas. The facility is consistent with planned development on post.	Approximately 7 acres of disturbed grassland would be converted to the NWRSC and parking area. The facility is consistent with planned development on post.	Approximately 4 acres of disturbed grassland and 5 acres of surfaced/paved acres would be converted to the NWRSC and parking area. The Marshalling Yard would have to be relocated, which would result in an additional 7 to 9 acres being disturbed. The facility is consistent with planned development on post.
Aesthetics	No adverse impacts would occur.	Loss of 7 acres of forest community. Given the vast amount of similar habitat on post, the development surrounding the site, and the vegetative buffer that would be incorporated to the designs, the impacts would be insignificant.	Impacts to Tarr Creek recreational area would occur, but since this site is in a developed area, the impacts would be insignificant.	This site is located in a developed site adjacent to Highway 21; thus, no significant impacts would occur. Slight adverse impacts would occur at the relocation site.
Air Quality	No adverse effects are anticipated.	Minor temporary effects to air quality during construction would occur. Pre-project conditions would return upon cessation of construction activities. All emissions would be below <i>de minimus</i> thresholds.	Impacts would be the same as the Preferred Alternative.	Same as Preferred Alternative. Duration of construction would be expected to increase slightly, however.
Noise	No adverse impacts are expected.	Minor temporary increases in ambient noise levels during construction. Pre-project conditions would return upon cessation of construction activities. Construction would be limited to daylight hours only. Due to the distance to other noise receptors, construction noise would be attenuated. Operation of the facility would create insignificant increase in noise over the current conditions.	Impacts would be the same as the Preferred Alternative.	Impacts would be the same as the Preferred Alternative.

Table 5-1, continued

Affected Resource	No Action Alternative	Preferred Alternative	Alternative Site 2	Alternative Site 3
Soils	No impacts to soils are expected.	Approximately 7 acres of soil would be disturbed and permanently removed from potential biological productivity.	Impacts would be the same as the Preferred Alternative.	Approximately 14 acres of soil would be disturbed and permanently removed from potential biological productivity.
Water Resources	No adverse impacts would occur.	No significant impact to region's water supply or water quality. No potentially jurisdictional wetlands occur on the proposed site.	Impacts would be the same as the Preferred Alternative relative to water supply or quality; potential impacts to wetlands depending upon final design footprint.	Impacts would be the same as the Preferred Alternative.
Biological Resources	No impacts are expected.	About 7 acres of oak/pine forest habitat would be permanently removed.	Approximately 7 acres of disturbed grassland would be permanently removed from potential biological productivity.	Approximately 11 acres of disturbed grassland would be permanently altered. Approximately 5 acres at the Marshalling Yard are currently paved or surfaced.
Cultural Resources	No effects are anticipated.	No impacts are expected.	No impacts are expected.	No impacts are expected.
Socioeconomics	No effect on the regional or local economy would be expected.	Insignificant adverse effects on traffic and public utilities during construction are anticipated. Traffic will be increased on east side of post due to realignment. Slight adverse impacts to region of influence once the realignment of the 84 th ARRTC is complete since there would be a net loss of personnel on post.	Similar to Preferred Alternative. Impacts to traffic slightly higher during construction, but would return to pre-project conditions upon completion of the construction.	Similar to Preferred Alternative.
Transportation	No adverse impacts would occur.	Temporary and minor increases in traffic during construction and during the time when the NWRRC and the 84 th RRC are on post. Congestion would occur near the main gate and South O Street.	Impacts would be the same as the Preferred Alternative. Congestion would be at a different location, however.	Impacts would be the same as the Preferred Alternative. Congestion would be at a different location, however.

Table 5-1, continued

Affected Resource	No Action Alternative	Preferred Alternative	Alternative Site 2	Alternative Site 3
Utilities	No adverse impacts would occur.	Temporary and minor increases would occur during construction and during the time when the NWRSC and the 84 th RRC are on post simultaneously. Once the 84 th RRC realignment is completed, utility demands would return to or below pre-project conditions.	Impacts would be the same as the Preferred Alternative.	Impacts would be the same as the Preferred Alternative.
Hazardous Materials	No adverse impacts are expected.	No impacts are expected to occur.	No impacts are expected to occur.	No impacts are expected to occur.

5.2 Conclusions

Based on the information presented in the previous sections, it is concluded that the best available site for the proposed construction and operation of the NWRRC is at the preferred location and that development of this site would result in insignificant adverse impacts to the area's human and natural environment. Selection of the Marshalling Yard site would require relocation of that facility and, ultimately, impact 16 acres rather than 7 acres. Selection of the Tarr Creek site would require construction within the 100-year floodplain, in conflict with EO 11988. This site would also increase the potential for soil erosion/sedimentation into a Class 1 trout stream due its proximity to Tarr Creek. Therefore, issuance of a Finding of No Significant Impact (FONSI) is warranted and no additional NEPA documentation (i.e., Environmental Impact Statement) is required.

SECTION 6.0
LIST OF PREPARERS

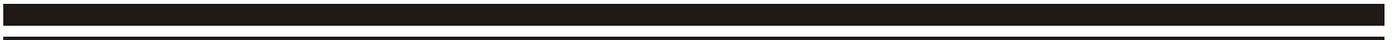


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The following people were primarily responsible for preparing this Environmental Assessment.

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7.0 DISTRIBUTION LIST

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SECTION 8.0
REFERENCES



8.0 REFERENCES

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SECTION 9.0
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9.0 PERSONS CONSULTED

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SECTION 10.0
ACRONYMS AND ABBREVIATIONS



10.0 ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
AR	Army Regulations
ARRTC	Army Reserve Regional Training Center
ASTs	above ground storage tanks
AT/FP	Anti-Terrorism/Force Protection
BMP	best management practices
BRAC Commission	Defense Base Closure and Realignment Commission
CC	Compliance-Related Cleanup
CCRG	Commonwealth Cultural Resources Group, Inc.
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CZMA	Coastal Zone Management Act
DNL	Day-Night Level
DoD	Department of Defense
DSS	Directorate of Support Services
EA	Environmental Assessment
EBS	Environmental Baseline Survey
ECT	Extended Combat Training
EO	Executive Order
EPA	Environmental Protection Agency
ERW	Exceptional Resource Water
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FY	Fiscal Year
GIS	Geographic Information System
HAP	Hazardous Air Pollutant
HVAC	heating, ventilation, and air conditioning
HVLP	high-volume, low-pressure
IAP	Installation Action Plan
ICRMP	Integrated Cultural Resources Management Plan
ICUZ	Installation Compatibility Use Zone
IGPBS	Integrated Global Presence and Basing Strategy
INRMP	Integrated Natural Resources Management Plan
IRP	Installation Restoration Plan
LQG	large quantity generator
MATES	Mobilization and Training Equipment Site
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NRCS	Natural Resource Conservation Service
NWRRSC	Northwest Regional Readiness Sustainment Command
OSHA	Occupational Safety and Health Administration
PAO	Public Affairs Office
PCPI	per capita personal income
POL	petroleum, oils, and lubricants
ROI	region of influence
SF	square feet
SHPO	State Historic Preservation Officer

SWPPP	Storm Water Pollution Prevention Plan
TPI	total personal income
TPY	tons per year
U.S.	United States
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WAC	Wisconsin Administration Code
WDNR	Wisconsin Department of Natural Resources
WHPA	Well Head Protection Area
WHPP	Well Head Protection Plan
WPDES	Wisconsin Pollution Discharge Elimination System

APPENDIX A
AIR QUALITY EMISSIONS DATA



**ANALYSIS AND PRELIMINARY DETERMINATION FOR THE
SIGNIFICANT REVISION OF OPERATION PERMIT
642024900-F10**

**FOR
FORT MCCOY ARMY BASE
LOCATED AT
2171 S. 8th AVENUE
FORT McCOY, MONROE COUNTY, WISCONSIN**

**ON THE OPERATION OF
MILITARY TRAINING OPERATIONS**

This review was performed by the Wisconsin Department of Natural Resources in accordance with Sections 285.60 to 285.66, Wis. Stats. and Chapter NR 407, Wis. Adm. Code. This review is for a Synthetic Minor Non-Part 70 source located in an area which is designated attainment/unclassified for all criteria pollutants.

Air Pollution Control Operation Permit: 642024900-F11

Analysis, Preliminary Determination
and Draft Permit prepared by: Jeffery Johnson Date: 1/29/03

Approval Element	Initials and Date
Preliminary Determination Document (including calculations)	/s/ BKE 1/31/03
Applicable Requirement	
Compliance Documentation Methods (compliance inspector concurrence)	/s/ MFS 2/11/03
Compliance Plan and Schedule	
Federal Enforceability of Permit Conditions (synthetic minor conditions)	/s/ JEA 2/24/03

Approved for Public Review and Comment: Joseph E. Ancel Date: 02/24/2003

cc: AM/7 — OP or Appropriate Region/Service Center
Tomah Public Library, 716 Superior Ave., Tomah, WI 54660

INTRODUCTION

Any person holding an air pollution control permit who seeks a revision shall file a written petition for revision of the permit with the Department. The petition shall identify the permit to be revised, outline the specific provisions and reasons for which revision is sought. Subject sources shall follow the procedures set forth in s.NR407.13, Wis.Adm.Code. The application is reviewed by the Department following the provisions set forth in Sections 285.60 to 285.65.

Subject sources are to be reviewed for their air pollution control technology and for their impact upon the air quality. This is to insure compliance with all applicable rules and statutory requirements. The review will show why the source(s) operation should be approved, conditionally approved, or disapproved. It will encompass emission calculations and air quality analysis using US EPA models, if applicable. Emissions from volatile organic compound (VOC) sources and small sources whose emissions are known to be insignificant are normally not modeled. As a precautionary note, the emission estimates may be based on US EPA emission factors (AP-42) or theoretical data and can vary from actual stack test data.

GENERAL APPLICATION INFORMATION

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2171 S. 8th Ave.
Fort McCoy, WI 54656

Responsible Official: Michael R. Staczak, Commander
(608) 388-3545

Application Contact Person: Susan Herzog-Blumer, Env. Protection Specialist
(608) 388-4791

Application Submitted By: Susan Herzog-Blumer, Env. Protection Specialist
(608) 388-4791

Date of Administratively Complete Application: 07/02/02

Dates of Submittal: 07/02/02

SOURCE DESCRIPTION

Fort McCoy is a military base located between Sparta and Tomah, Wisconsin, in north central Monroe county. The immediate areas surrounding Fort McCoy are sparsely populated and land-use consists of farming, cranberry marshes and forest lands. The base is used primarily for Regular Army, Army Reserve, and National Guard training services. Over 2,600 boilers and space heaters fueled by natural gas and liquid propane gas provide heat for the base. Electric generators are available for emergency use. The base has two paint booths for coating tactical vehicles using high-volume, low-pressure (HVLP) spray guns with overspray filters for particulate control. Degreasing operations occur at various locations at Fort McCoy. Petroleum products are stored in three above ground storage tanks (ASTs). Fugitive emission sources at Fort McCoy include unpaved roads, sewage treatment, open storage piles, and a former landfill.

PROJECT DESCRIPTION

Fort McCoy received an exemption (02-JAJ-609-EXM) for the installation of a rock crushing unit (P02). The facility was required by exemption 02-JAJ-609-EXM to obtain a revised facility wide operation permit. This permit reviews the addition of the new rock crushing unit and the facility's current air pollution control permit, 642024900-F10. No other changes to the facility have been made, please see the preliminary determination of permit 642024900-F10 for description and emission analysis for all other units than P02.

Significant Emissions Units.

1. Process P02 – Emission Unit Information.

Process Parameter	Description
Process/boiler/furnace/ number:	P02
Unit description:	Rock Crushing Unit
Control technology status:	Yes, rock crushing dust emissions are controlled by wetting
Maximum continuous rating (mmBTU/hr):	7.30
Date of construction or last modification:	2002
Construction Permit Requirements:	No, exempt under 02-JAJ-609-exm

1. Process P02 – Process Fuel Information.

Fuel Parameter	Primary Fuel
Fuel Name:	Diesel Fuel
Higher Heating Value:	0.133 mmBtu/gal

1. Process P02 – Process Fuel Information.

Fuel Parameter	Primary Fuel
Maximum Sulfur Content (weight %):	N/A
Maximum Ash Content (weight %):	N/A
Maximum hourly consumption:	54.9 gal/hr

Stack S11 – Stack Information.

Stack Parameter	Description	Stack Parameter	Description
Stack Identification Number:	S11*	Exhaust flow rate, normal (ACFM):	6279
Exhausting Unit(s):	P02	Exhaust gas temperature, normal (°F):	500
This stack has an actual exhaust point:	Yes	Exhaust gas discharge direction:	Up
Discharge height above ground level (ft):	10 ft.	Stack equipped with any obstruction:	No
Inside dimensions at outlet (ft):	1 ft. 7 in.		

*Note: S11 is a combination of multiple stacks associated with this process unit. The lowest stack height is 9.1 feet, the highest stack height is 22 feet 9 inches. 10 feet is used to be conservative. The inside dimensions at outlet is the combined dimensions of all stacks (4 in., 4 in., 4in., 4in., and 3 in.). The exhaust flow rate is the combined rate from all stacks.

Stack Parameter Summary.

Stack ID	Actual Exhaust Point or Fugitive	Circular or Rectangular	Diameter or Width (if rect.)	Length (if rect.)	Height	Normal Flow Rate	Maximum Flow Rate
			ft (m)	ft (m)		ft (m)	ACFM
S11	Exhaust Point	Circular	1 ft. 7 in.	---	10 ft. 0 in.	6279	6279

Insignificant Emissions Units.

- Boiler, Turbine, and HVAC System Maintenance.
- Convenience Space Heating (< 5 million BTU/hr Burning Gas, Liquid, or Wood).
- Convenience Water Heating.
- Demineralization and Oxygen Scavenging of Water for Boilers.
- Fire Control Equipment.
- Fuel Oil Storage Tanks (< 10,000 gal.).
- Internal Combustion Engines Used for Warehousing and Material Transport.
- Janitorial Activities.
- Maintenance of Grounds, Equipment, and Buildings (lawn care, painting, etc.).
- Office Activities.
- Pollution Control Equipment Maintenance.
- Purging of Natural Gas Lines.
- Photo Processing.

- Woodworking.
- Graphic Arts.
- Chlorine use in the swimming pool.
- Coal Storage Pile.
- Media Blaster.
- Media Underground Storage Tanks (JP-4, diesel).
- Aboveground Non-gasoline Storage Tanks.
- Stockpiled Contaminated Soils.

SOURCE SPECIFIC EMISSION LIMIT CALCULATIONS

The facility is currently regulated by permit 642024900-F10, which includes a facility wide cap on nitrogen oxides (NO_x) emissions to below 100 tons per year (TPY). The facility requests to remain a synthetic minor source by limiting criteria pollutant emissions to below 100 TPY. The rock crushing unit (P02) has a production rate of 150 tons per hour (ton/hr), and has a maximum diesel fuel use rate of 54.9 gallons per hour (gal/hr). To find the allowable fuel usage limit for P02, emissions of NO_x are considered. The facility currently potentially emits 95.16 TPY of NO_x (see permit 642024900-F10). This leaves $(99.9 - 95.16 = 4.84)$ 4.74 TPY of NO_x available.

Using a diesel heat content of 19,300 Btu/lb and a density of 6.89 lb/gal, the total heat content input is:

$$19,300 * 6.89 / 1,000,000 = 0.133 \text{ million Btu/gallon (MMBtu/gal)}$$

Emission factors (EF) are obtained from AP-42, Chapter 3, Table 3.3-1. The emission factor for NO_x is 4.41 lb/MMBtu. The limit on fuel usage is therefore obtained from the following equation:

$$(4.41 \text{ lbNO}_x/\text{MMBTU}) * (0.133 \text{ MMBTU/gal}) * (X \text{ gal/yr}) * (1 \text{ ton} / 2000 \text{ lb}) = 4.74 \text{ TPY}$$

$$(X \text{ gal/yr}) = 16162 \text{ gal/yr (rounded down)}$$

Maximum theoretical emissions (MTE) and potential emissions (PTE) from the combustion of diesel fuel are calculated as follows:

$$\text{MTE (lb/hr)} = \text{EF(lb/MMBtu)} * (0.133 \text{ MMBtu/gal}) * (54.9 \text{ gal/hr})$$

$$\text{MTE (TPY)} = \text{MTE(lb/hr)} * (8,760 \text{ hr/yr}) / (2000 \text{ lb/ton})$$

$$\text{PTE (lb/hr)} = \text{MTE(lb/hr)}$$

$$\text{PTE (TPY)} = \text{EF(lb/MMBtu)} * (0.133 \text{ MMBtu/gal}) * (16162 \text{ gal/yr}) / (2000 \text{ lb/ton})$$

The operation of the rock crushing unit will also produce particulate matter emissions throughout various stages of the operation. The facility supplied DNR with the estimated emissions and DNR has accepted these estimations as accurate. The facility used emission factors from AP-42, Chapter 11, to calculate particulate matter (of which all has been assumed to be of 10 microns in size or less) emissions from such operation stages as: primary, secondary and tertiary crushers; conveyor transfer; and screening.

Total emissions from this process are included in the table under the "FACILITY EMISSIONS" section below.

The combustion of diesel fuel will also emit hazardous air pollutants (HAPs). Emissions are from the combustion of virgin fossil fuels and are exempt by s. NR 445.04(1)(c)1 and 2, Wis. Adm. Code. However emissions of these HAPs has been included to show that the level of the emissions are very

minimal and will have no effect on the synthetic minor source status; the facility shall remain below 10 TPY for any single HAP and below 25 TPY for all HAPs combined, facility wide. These emissions are included in the table under the "FACILITY EMISSIONS" section below.

AIR QUALITY REVIEW

Fort McCoy is a military base located between Sparta and Tomah, Wisconsin, in north central Monroe County. The immediate areas surrounding Fort McCoy are sparsely populated and land-use consists of farming, cranberry marshes and forest lands. The nearest fence line from the rock crushing unit is approximately 3 miles (4,830 meters) away, to the East. The particulate matter PSD baseline was set in Monroe County at Sparta Manufacturing on January 29, 1996.

The "Screen2" model was run for PM₁₀, carbon monoxide, sulfur dioxide, and nitrogen oxides from stack S11, by Jeff Johnson on January 29, 2003. A discrete distance was also defined, 4,830 meters, to show what the highest concentration would be at the property boundary. The following data was used to run the model (stack S11 represents multiple stacks, however the model uses the lowest stack height but combines the stack diameters and exhaust rates):

Pollutant	PM10	TSP	CO	NOx	SO2
Source Type	Point	Point	Point	Point	Point
Emission Rate	2.26	2.26	6.94	32.2	2.12
Stack Height (ft)	10	10	10	10	10
Stack Inside Diameter (ft)	1.5833	1.5833	1.5833	1.5833	1.5833
Stack Exit Velocity (acfm)	6279	6279	6279	6279	6279
Stack Exit Gas Temperature (°F)	500	500	500	500	500
Receptor Height (ft)	0.0 (default)				
Urban/Rural Option	Rural	Rural	Rural	Rural	Rural
Building Height (ft)	5	5	5	5	5
Minimum Horizontal Building Dimension (ft)	160	160	160	160	160
Maximum Horizontal Building Dimension (ft)	220	220	220	220	220
Maximum 1-hour concentration (mg/m3)	8.736	8.736	26.83	124.5	8.195

Pollutant	Maximum concentration (mg/m3)	Background concentration (mg/m3)	Total concentration (mg/m3)	Standard (mg/m3)	% Standard
TSP 24-hr	3.4944	41.8	45.2944	150	30%
PM10 24-hr	3.4944	29.8	33.2944	150	22%
PM10 Annual	0.69888	9.8	10.49888	50	21%
CO 1-hr	26.83	3188	3214.83	40000	8%
CO 8-hr	18.781	890.4	909.181	10000	9%
NOx Annual	9.96	4.7	14.66	100	15%
SO2 3-hr	7.3755	137.1	144.4755	1300	11%
SO2 24-hr	3.278	35.2	38.478	365	11%
SO2 Annual	0.6556	7.9	8.5556	80	11%

Modeling Results: The results of the Screen2 modeling showed all pollutants would attain and maintain

ambient air quality standards, and none exceeded 75% of the standard. Therefore, a refined modeling request has not been submitted.

FACILITY EMISSIONS

Actual emissions are the total emissions generated by the emission sources identified below over the specified time period taking into account any reductions made by a control device or technique. Maximum theoretical emissions are the quantity of air contaminants that theoretically could be emitted by the emissions sources identified below, without considering emission control devices, based on the design capacity of the source. Potential to emit is the maximum capacity of the emission sources identified below to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air contaminant shall be treated as part of its design if the limitation is Federally enforceable.

A. Stack Emissions.

Stack S11 – Criteria Pollutants Emissions (Stack Height - 10 ft.).

Pollutant	Maximum Theoretical Emissions (MTE)		Potential to Emit (PTE)
	Pounds per hour	Tons per year	Tons per year
PM10	2.97	13.0	0.437
Nitrogen oxides	32.2	141	4.74
Carbon monoxide	6.94	30.4	1.02
Volatile Organic Compounds	2.63	11.5	0.387
Sulfur dioxide	2.12	9.27	0.312

Stack S11 – Hazardous Air Pollutant Emissions (Stack Height - 10 ft.).

Pollutant	Potential to Emit (PTE)		NR 445 Values			
	lb/hr	tpy	<i>de minimus</i>		Unit	NR 445 Table
			Tbl. 1-4	Tbl. 5		
1,3-Butadiene	2.85E-04	4.20E-05	4.164		lb/hr	1
Acetaldehyde	5.60E-03	8.24E-04	14.9904		lb/hr	1
Acrolein	6.75E-04	9.94E-05	0.02088		lb/hr	1
Benz(a)anthracene **	1.23E-05	1.81E-06	250		lb/yr	3B
Benzene	6.81E-03	1.00E-03	300		lb/yr	3A
Benzo(a)pyrene **	1.37E-06	2.02E-07	250		lb/yr	3B
Benzo(b)fluoranthene **	7.23E-07	1.06E-07	250		lb/yr	3B

Dibenzo(a,h)anthracene **	4.26E-06	6.26E-07	250		lb/yr	3B
Formaldehyde	8.61E-03	1.27E-03	250		lb/yr	3B
Indeno(1,2,3-cd)pyrene **	2.74E-06	4.03E-07	250		lb/yr	3B
Naphthalene	6.19E-04	9.11E-05	4.164		lb/hr	1
Toluene	2.99E-03	4.40E-04	31.2312	84157	lb/hr (lb/yr)	1 & 5
Xylenes	2.08E-03	3.06E-04	36.228		lb/hr	1
TOTAL: 112(b) only	0.0277	0.00407				

** Not a 112(b) listed compound

B. Facility Emissions Summary.

I. Criteria Pollutants Emissions.

Pollutant	Potential to Emit (PTE) Tons per Year
Particulate Matter Emissions	8.98
PM10	0.437
Nitrogen oxides	99.9
Carbon monoxide	62.3
Volatile Organic Compounds	40.8
Sulfur dioxide	0.712

II. Hazardous Air Pollutant Emissions.

Pollutant	Maximum Theoretical (MTE)		Potential to Emit (PTE) tpy	NR 445 <i>de minimus</i> Values				Unit	Table No.
	lb/hr	tpy		Tbl. 1 - 4		Tbl. 5			
				< 25 ft	≥ 25 ft	< 25 ft	≥ 25 ft		
1,3-Butadiene	2.85E-04	1.25E-03	0.00	4.164	17.472			lb/hr	1
Acetaldehyde	5.60E-03	2.45E-02	0.00	14.9904	62.952			lb/hr	1
Acrolein	6.75E-04	2.96E-03	0.00	0.02088	0.0864			lb/hr	1
Benz(a)anthracene **	1.23E-05	5.37E-05	0.00	250	250			lb/yr	3B
Benzene	6.81E-03	2.98E-02	0.00	300	300			lb/yr	3A
Benzo(a)pyrene **	1.37E-06	6.01E-06	0.00	250	250			lb/yr	3B
Benzo(b)fluoranthene **	7.23E-07	3.17E-06	0.00	250	250			lb/yr	3B
Chlorine	1.74E-01	7.62E-01	0.53	0.2496	1.032			lb/hr	1
Chromium (VI) **	5.65E-01	2.48E+00	0.01	2	2			lb/yr	3A
Dibenzo(a,h)anthracene **	4.26E-06	1.86E-05	0.00	250	250			lb/yr	3B
Ethyl benzene	8.00E-03	3.50E-02	0.04	36.228	152.136	210391	912636	lb/hr (lb/yr)	1 & 5
Formaldehyde	6.25E-01	2.74E+00	0.24	250	250			lb/yr	3B
Indeno(1,2,3-cd)pyrene **	2.74E-06	1.20E-05	0.00	250	250			lb/yr	3B
Methyl Chloroform	7.99E-03	3.50E-02	0.04						---

Methyl Ethyl Ketone	2.16E+00	9.46E+00	4.50						---
Methyl Isoamyl Ketone **	7.55E+00	3.31E+01	15.70	19.9872	83.928			lb/hr	4
Methyl Isobutyl Ketone	5.45E-01	2.39E+00	1.10	17.0736	71.688			lb/hr	1
Mineral Spirits **	3.42E+00	1.50E+01	7.10	43.7232	183.624			lb/hr	4
Naphthalene	6.19E-04	2.71E-03	0.00	4.164	17.472			lb/hr	1
POM **	4.50E-06	1.97E-05	0.003	250	250			lb/yr	3B
Toluene	2.41E+00	1.06E+01	4.10	31.2312	131.16	84157	365054	lb/hr (lb/yr)	1 & 5
Xylenes	5.63E-01	2.47E+00	6.60	36.228	152.136			lb/hr	1
TOTAL: 112(b) only	6.51	28.5	17.1						

** Not a 112(b) listed compound

FACILITY STATUS UNDER PART 70

To qualify as a Synthetic minor non-Part 70 source, Fort McCoy has elected to limit fuel consumption rates for all heating units and coating usage rates for surface coating operations. This will ensure that potential criteria emissions are under 100 tons per year, individual potential HAP emissions under 10 tons per year and total potential HAP emissions under 25 tons per year. Fugitive emissions at Fort McCoy are not considered in determining major source status (s. NR 407.02(4)(b), Wis. Adm. Code). When considering hazardous air pollutants, only federal HAPs are used to determine Part-70 status (s. NR 407.02(4)(a), Wis. Adm. Code). The facility will remain a Part-70 source after the issuance of the revised permit.

COMPLIANCE DEMONSTRATION MONITORING RECORDS

The facility will have new requirements for the monitoring of process P02 – Rock Crushing Unit. P02 is limited to 16162 gallons per year, which is equivalent to 1346.8 gallons per month (gal/mo). The permit will contain this monthly limitation, based on a 12 month rolling average. The facility will be required to maintain monthly records of fuel usage, and the 12 month rolling average.

Process P02 is also subject to limitations for particulate matter emissions and visible emissions. Particulate emissions are limited to the potential emission rates in order to attain and maintain ambient air quality standards. Compliance will be demonstrated by showing that diesel fuel is the only fuel used in the rock crushing unit. This will be accomplished through recordkeeping.

FACILITY COMPLIANCE STATUS

The Department finds that:

1. The source will meet applicable emission limits and other requirements.
2. The source will not cause nor exacerbate a violation of an ambient air quality standard or ambient air increment.

PRELIMINARY DETERMINATION

The Wisconsin Department of Natural Resources has reviewed the permit application and other materials submitted by Fort McCoy Army Base and hereby makes a preliminary determination that an operation permit may be issued with the following Draft Applicable Limits and Draft Permit Conditions.

APPENDIX B
CORRESPONDENCE





DEPARTMENT OF THE ARMY
INSTALLATION MANAGEMENT AGENCY
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT MCCOY
2171 SOUTH 8TH AVENUE
FORT MCCOY, WI 54656-5136
May 5, 2006

Directorate of Support Services

Ms. Louise Clemency
US Fish and Wildlife Service
Division of Ecological Services
2661 Scott Tower Road
New Franken, WI 54229

Dear Ms. Clemency:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made by the Defense Base Closure and Realignment Commission ("BRAC Commission") during the fall of 2005. One of the proposed actions is to establish the Northwest Regional Readiness Management Command (RMC) Headquarters at Fort McCoy. This action will be accomplished by realigning units from the Wichita US Army Reserve Center and Fort Douglas, Utah. The Army Reserve Regional Training Center that is currently stationed at Fort McCoy will be realigned to Fort Knox, Kentucky.

A new facility will be required to provide training and administrative support for the RMC. The design standards indicate that an approximately 100,000 square feet (SF) are required to accommodate the 300 to 400-member RMC operations. To reduce impacts from ground disturbing actions, a 2-story building (50,000 SF each floor) will be constructed. Parking facilities and storage areas will also be incorporated into the design. The total amount of disturbed area is expected to be less than 7 acres. No additional weapons systems or demands on training ranges are required for the proposed action.

Three sites were considered for the construction of the RMC facility. These sites are shown on the attached figure. The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new RMC at one of these three sites. If the Marshalling Yard site (Alternative 3) were ultimately selected, the Marshalling Yard would need to be relocated to the area depicted on the attached figure (Relocation Area). This connected action will also be addressed in the EA.

Surveys for sensitive resources are currently schedule to be completed for all three sites and the relocation area. We respectfully request that you provide us with any concerns or issues that you feel should be addressed in this EA. We will send you a copy of the EA when it is released to the public, which is currently anticipated to occur in late July. If you have any questions, please do not hesitate to call me at (608) 388-4776.

Sincerely,

Alan L. Balliett
Chief, Environmental Branch

Enclosure



DEPARTMENT OF THE ARMY
INSTALLATION MANAGEMENT AGENCY
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT MCCOY
2171 SOUTH 8TH AVENUE
FORT MCCOY, WI 54656-5136

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APR 28 2006

Directorate of Support Services

Mr. Sherman Baker
Compliance Division
The State Historical Society of Wisconsin
816 State Street
Madison, WI 53706

Dear Mr. Baker:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made by the Defense Base Closure and Realignment Commission ("BRAC Commission") during the fall of 2005. One of the proposed actions is to establish the Northwest Regional Readiness Management Command (RMC) Headquarters at Fort McCoy. This action will be accomplished by realigning units from the Wichita US Army Reserve Center and Fort Douglas, Utah. The Army Reserve Regional Training Center that is currently stationed at Fort McCoy will be realigned to Fort Knox, Kentucky.

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Surveys for sensitive resources are currently schedule to be completed for all three sites and the relocation area. The results of these pedestrian surveys will be forwarded to you and the Ho-Chunk Nation with the appropriate request for determination in accordance with 36 CFR 800. We will send you a copy of the EA when it is released to the public, which is currently anticipated to occur in late July. If you have any questions, please do not hesitate to call me at (608) 388-4776.

Sincerely,

Alan L. Balliett
Chief, Environmental Branch

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2171 SOUTH 8TH AVENUE
FORT MCCOY, WI 54656-5136

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APR 28 2006

Directorate of Support Services

Mr. James Doperalski Jr.
Environmental Analysis and Review Specialist
Wisconsin Department of Natural Resources
La Crosse Service Center
3550 Mormon Coulee
La Crosse, WI 54601

Dear Mr. Doperalski:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made by the Defense Base Closure and Realignment Commission ("BRAC Commission") during the fall of 2005. One of the proposed actions is to establish the Northwest Regional Readiness Management Command (RMC) Headquarters at Fort McCoy. This action will be accomplished by realigning units from the Wichita US Army Reserve Center and Fort Douglas, Utah. The Army Reserve Regional Training Center that is currently stationed at Fort McCoy will be realigned to Fort Knox, Kentucky.

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Sincerely,

Alan L. Balliett
Chief, Environmental Branch

Enclosure

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INSTALLATION MANAGEMENT AGENCY
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT MCCOY
2171 SOUTH 8TH AVENUE
FORT MCCOY, WI 54656-5136

APR 28 2006

Directorate of Support Services

Ms. Helen Kitchel
Environmental Reviewer
Bureau of Endangered Resources
Wisconsin Department of Natural Resources
101 South Webster
Madison, WI 53703

Dear Ms. Kitchel:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made by the Defense Base Closure and Realignment Commission ("BRAC Commission") during the fall of 2005. One of the proposed actions is to establish the Northwest Regional Readiness Management Command (RMC) Headquarters at Fort McCoy. This action will be accomplished by realigning units from the Wichita US Army Reserve Center and Fort Douglas, Utah. The Army Reserve Regional Training Center that is currently stationed at Fort McCoy will be realigned to Fort Knox, Kentucky.

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Alan L. Balliett
Chief, Environmental Branch

Enclosure



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2171 SOUTH 8TH AVENUE
FORT MCCOY, WI 54656-5136

COPY

APR 28 2006

Directorate of Support Services

Mr. Larry Garvin, Tribal Historic Preservation Officer
Ho-Chunk Nation
P.O. Box 667
Black River Falls, WI 54615

Dear Mr. Garvin:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made by the Defense Base Closure and Realignment Commission ("BRAC Commission") during the fall of 2005. One of the proposed actions is to establish the Northwest Regional Readiness Management Command (RMC) Headquarters at Fort McCoy. This action will be accomplished by realigning units from the Wichita US Army Reserve Center and Fort Douglas, Utah. The Army Reserve Regional Training Center that is currently stationed at Fort McCoy will be realigned to Fort Knox, Kentucky.

A new facility will be required to provide training and administrative support for the RMC. The design standards indicate that an approximately 100,000 square feet (SF) are required to accommodate the 300 to 400-member RMC operations. To reduce impacts from ground disturbing actions, a 2-story building (50,000 SF each floor) will be constructed. Parking facilities and storage areas will also be incorporated into the design. The total amount of disturbed area is expected to be less than 7 acres. No additional weapons systems or demands on training ranges are required for the proposed action.

Three sites were considered for the construction of the RMC facility. These sites are shown on the attached figure (Attachment A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new RMC at one of these three sites. If the Marshalling Yard site (Alternative 3) were ultimately selected, the Marshalling Yard would need to be relocated to the area depicted on the attached figure (Relocation Area). This connected action will also be addressed in the EA.

Surveys for sensitive resources are currently scheduled to be completed for all three sites and the relocation area. Pre-survey research indicates that there are 17 previously identified archaeological sites within 1 mile of the proposed construction sites (see Attachment B). The results of these pedestrian surveys will be forwarded to you and the State Historical Society of Wisconsin with the appropriate request for determination in accordance with 36 CFR 800. If you are aware of any Sacred Sites or other Traditional Cultural Properties that might be affected by the proposed action, please contact us immediately so that we can avoid them. We will send you a copy of the EA when it is released to the public, which is currently anticipated to occur in late July. If you have any questions, please do not hesitate to call me at (608) 388-4776.

Sincerely,

Alan L. Balliett
Chief, Environmental Branch

Enclosure



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary
Scott Humrickhouse, Regional Director



West Central Region Headquarters
1300 W. Clairemont Avenue
PO Box 4001
Eau Claire, Wisconsin 54702-4001
Telephone 715-839-3700
FAX 715-839-6076
TTY Access via relay - 711

May 5, 2006

IN REPLY REFER TO:

Alan L. Balliett
Fort McCoy
2171 South 8th Avenue
Fort McCoy, WI 54656-5136

SUBJECT: Construction of the Northwest Regional Readiness Management Command (RMC) Headquarters

Dear Mr. Balliett:

I have completed review of your letter dated April 28, 2006. In your letter you are proposing to build 100,000 square foot 2-story building. The attached map shows three alternative sites and identifies the preferred alternative. The letter also requests the Department provide any concerns or issues that should be addressed in the EA.

Although the attached map outlines the boundary of the three alternatives and the marshalling yard relocation area it is difficult to assess the potential impacts associated with each alternative. Alternatives 2 and 3 appear to be located on a disturbed or open field site which would require little or no tree removal while alternative three appears to be largely undisturbed and mostly wooded.

From the information you were able to provide during our May 5, 2006 phone conversation it appears that Alternative 2 has the greatest potential for direct impacts to Tarr Creek, which is a class I trout stream. Alternative 3 is a gravel parking lot with the relocation area consisting of an open field. The preferred alternative would be located adjacent to the existing parking lot along the north side and the storm water would be diverted in to a detention basin away from Tarr Creek. The preferred alternative also would not require removal all the trees within the project boundary.

Impacts to Tarr Creek including storm water management, and erosion control will need to be fully discussed. As mentioned above Tarr Creek is a class I trout stream and will need to be protected both during and after construction. Storm water treatment options which do not divert water directly to Tarr Creek are preferred. Erosion control methods which minimize impacts to Tarr Creek should be described in the EA.

Your letter states that surveys for sensitive species are currently being conducted. If the survey finds any sensitive species the EA will need to address the impacts and any mitigation efforts to minimize the impacts.

You mentioned that the dominant tree species in the wooded area of the preferred alternative is oak. You should consider the potential for oak wilt with the proposed site disturbance. It is best to avoid cutting, pruning or otherwise wounding oak trees from April 15th to July 1st.

Thank you for the opportunity to review and comment on the above project. The Department may be able to provide more specific comments once the EA is written and more information is available. Should you have any questions, please contact me at 715-839-1609.

Sincerely,

A handwritten signature in cursive script that reads "James P. Doperalski Jr.".

James P. Doperalski Jr.
Environmental Analysis and Review Specialist



DEPARTMENT OF THE ARMY
INSTALLATION MANAGEMENT AGENCY
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT MCCOY
2171 SOUTH 8TH AVENUE
FORT MCCOY, WI 54656-5136

July 17, 2006

Directorate of Support Services

Mr. Joel Trick
U.S. Fish and Wildlife Service
Ecological Services
2661 Scott Tower Road
New Franken, WI 54229

Dear Mr. Trick:

As indicated in my previous letter to your office dated May 5, 2006, the U.S. Army Corps of Engineers (USACE), Mobile District is preparing an Environmental Assessment (EA) for the proposed construction and operation of the new Northwest Regional Readiness Sustainment Command (NWRRC) at Fort McCoy, Wisconsin. The proposed action is the response to the Defense Base Closure and Realignment (BRAC) Commission's recommendation. Units from the Wichita U.S. Army Reserve Center and Fort Douglas, Utah would be realigned to the new NWRRC at Fort McCoy and the Army Reserve Regional Training Center (AARTC), which is currently stationed at Fort McCoy, will be realigned to Fort Knox, Kentucky.

To accommodate the realignment, a new facility will be constructed. The construction activities would consist of approximately 100,000 square feet of administration, education, classroom, weapons simulators, and library; parking areas; and storage facilities. The total amount of disturbed area is expected to be less than 7 acres. No additional weapons systems or demands on training ranges are required for the proposed action. Therefore, the primary effects to wildlife would result from the construction of the facility.

Three sites were considered for the NWRRC facility. These sites are shown on the attached figure (Attachment A) and are the same sites presented to your office in the previous letter. All three sites have been surveyed for sensitive species and wetlands. However, after careful consideration of all environmental, installation planning and mission requirements, the site located near the intersection of South O Street and South 8th Avenue has been selected as the preferred site. The site is located approximately 750 feet south of Tarr Creek and outside of the creek's 100-year floodplain. No wetland communities were observed at or near the preferred site.

The preferred location is situated within a 25-acre forested site on the southeastern portion of the cantonment area. Again, only 7 acres of the 25 acres would be impacted by the proposed construction. This site consists of mixed oak/pine community. The canopy was dominated by burr oak (*Quercus macrocarpa*), white oak (*Q. alba*), black oak (*Q. velutina*), red pine (*Pinus resinosa*) and white pine (*P. strobes*). The shrub layer consisted of large colonies of blueberry (*Vaccinium* spp.) and the herbaceous layer consisted of a moderate cover of sedges, grasses, and forbs (Attachment B).

This site does not contain lupine (*Lupinus* spp.), which is a key element for the Karner blue butterfly (*Lycaeides melissa samuelis*). Neither lupine nor Karner blue butterfly were observed at the site. These results are consistent with previous surveys, as documented in Fort McCoy's 2006 Integrated Natural Resources Management Plan. Furthermore, no state-listed species were observed at the site.

The only other species that could occur on Fort McCoy would be the gray wolf (*Canis lupus*). This species generally prefers large blocks of forest and highly unlikely to use patches of forest within a cantonment area.

Based on these surveys and the knowledge that Fort McCoy has regarding its protected species populations, we have determined that the proposed action would have no effect on the Karner blue butterfly or gray wolf. Because of the limited size and quality of the habitat, especially in relation to the surrounding forested areas within Fort McCoy and Monroe County, insignificant impacts to other wildlife populations would occur as a result of the construction of the NWRRC.

We respectfully ask that you provide written concurrence with our determination. We would appreciate your prompt attention and response. If you have any questions, please do not hesitate to call me at (608) 388-4776.

Sincerely,



Alan L. Balliett
Chief, Environmental Branch

Attachments (2)



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Green Bay ES Field Office
2661 Scott Tower Drive
New Franken, Wisconsin 54229-9565
Telephone 920/866-1717
FAX 920/866-1710

July 24, 2006

Alan Balliett, Environmental Chief
Installation Management Agency
Headquarters, United States Army Garrison, Fort McCoy
2171 South 8th Avenue
Fort McCoy, Wisconsin 54656-5136

re: Request for Concurrence
New NWRRC Facility
Fort McCoy
Monroe County, Wisconsin

Dear Mr. Balliett:

The U.S. Fish and Wildlife Service (Service) has received your letter dated July 17, 2006, requesting our concurrence with your determination of effects to federally-listed threatened and endangered species resulting from the referenced project. This project entails the construction of a new Northwest Regional Readiness Sustainment Command (NWRRC) facility at Fort McCoy, Wisconsin. Our comments follow.

Based on the information presented for our review, we agree that since suitable habitat for the Karner blue butterfly and gray wolf are not present, these species would not be affected by construction of the NWRRC facility. Therefore, we concur with your determination of no effect to federally-listed species as a result of this project.

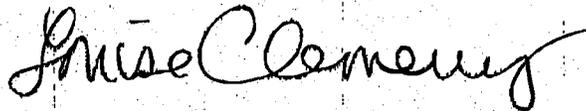
With respect to future project reviews, we have the following comments. For projects funded or authorized by a federal agency, that agency, or its designated agent, is responsible for making a determination under Section 7 of the Endangered Species Act of 1973, as amended (ESA), as to whether the project alternative may affect federally-listed threatened or endangered species or designated critical habitat. *If the federal agency or its designated agent determines that there are no federally listed species or designated critical habitat present in or near the project area, or that the project would have no effect on federally listed species or designated critical habitat, concurrence from the Service is not required.* In such instances, we recommend that the agency or its agent document how that determination was reached and include that information in the project file for the Record of Decision.

If the proposed project may affect, but is unlikely to adversely affect federally-listed threatened or endangered species or designated critical habitat, the federal action agency must obtain written concurrence from the Service. If the project may affect, and is likely to adversely affect

federally-listed species or adversely modify designated critical habitat, the federal agency must initiate formal consultation with the Service in accordance with section 7 of the ESA. Further information on the section 7 consultation process can be obtained by contacting the staff person identified at the end of this letter.

Questions pertaining to these comments can be directed to Mr. Joel Trick at 920-866-1737.

Sincerely,

A handwritten signature in cursive script that reads "Louise Clemency". The signature is written in black ink and is positioned above the printed name and title.

Louise Clemency
Field Supervisor



DEPARTMENT OF THE ARMY
INSTALLATION MANAGEMENT AGENCY
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT MCCOY
110 E. HEADQUARTERS ROAD
FORT MCCOY, WI 54656-5226

August 03, 2006

Biological and Cultural Resources Branch

Sherman Banker
Office of Preservation Planning
Wisconsin Historical Society
Headquarters Building
816 State Street
Madison, WI 53706-1482

Dear Mr. Banker:

Enclosed, please find two copies of the report entitled "Phase I Archaeological Survey of Proposed Realignment Areas - Fort McCoy Monroe County, Wisconsin," prepared by Commonwealth Cultural Resources Group, Inc. staff, for your review and comment.

If you have any questions or concerns, please contact me at (608) 388-4919.

FORT MCCOY TOTAL FORCE TRAINING CENTER.

Sincerely,

Stephen Wagner
Cultural Resources Contractor
CEMML/Colorado State University
Fort McCoy, WI 54656-5226

APPENDIX C
EIFS



Analysis of Socioeconomic Effects For Fort McCoy/BRAC05

Introduction

The socioeconomic analysis requirements of NEPA have been established over the years through successful early NEPA litigation (“McDowell vs Schlesinger”, US District Court, Western District of Missouri, Western Division, No. 75-CV-234-W-4 (June 19,1975) and “Breckinridge vs Schlesinger”, US District Court, Eastern District of Kentucky, No. 75-100 (October 31,1975)), as well as the practical need for communication and collaboration with affected communities. The social and economic effects of Base Realignment and Closure (BRAC) actions are especially relevant and important, as these issues are often the source of community concerns and subsequent controversies.

The Economic Impact Forecast System (EIFS) and the Hierarchical Approach.

The Model:

The Economic Impact Forecast System (EIFS) (Huppertz, Claire E.; Bloomquist, Kim M.; Barbehenn, Jacinda M.; EIFS 5.0 Economic Impact Forecast System, User’s Reference Manual; USACERL Technical Report TA-94/03; July 1994.) has been a mainstay of Army NEPA practice since its initial development and implementation in the mid-70s. EIFS provides a mechanism to estimate impacts, and ascertain the "significance" of projected impacts, using the Rational Threshold Value (RTV) technique. This analysis and determination can be readily documented, and if significance thresholds are not exceeded, the analysis can be completed. EIFS was designed to address NEPA applications, providing a “two-tier” approach to the process; (1) a simple and quick aggregate model (sufficient to ascertain the overall magnitude of impacts) and (2) a more detailed, sophisticated input-output (I-O) model to further analyze impacts that appear significant, in NEPA terms, and worthy of additional expenditures and analyses. This “two-tier” approach is consistent with the two common levels of NEPA analysis, the Environmental Assessment (EA) and the Environmental Impact Statement (EIS). EIFS has facilitated efficient and effective completion of such analyses for approximately 3 decades.

Complete documentation of the model, its development, and applicable theoretical underpinnings is available in numerous publications:

Huppertz, Claire E.; Bloomquist, Kim M.; Barbehenn, Jacinda M.; EIFS 5.0 Economic Impact Forecast System, User’s Reference Manual; USACERL Technical Report TA-94/03; July 1994.

Isard, W., Methods of Regional Analysis, MIT Press, 1960.

Isard, W. and Langford, T., Regional Input-Output Study: Recollections, Reflections, and Diverse Notes on the Philadelphia Experience, MIT Press, 1971.

Isserman, A., "The Location Quotient Approach to Estimating Regional Economic Impacts", AIP Journal, January, 1977, pp. 33-41.

- Isserman, A., "Estimating Export Activity in a Regional Economy: A Theoretical and Empirical Analysis of Alternative Methods", International Regional science Review, Vol. 5, 1980, pp. 155-184.
- Leigh, R., " The Use of Location Quotients in Urban Economic Base Studies", Land Economics, Vol 46, May, 1970, pp 202-205.
- Mathur, V.K. and Rosen, H.S. , "Regional Employment Multiplier: A new Approach", Land Economics, Vol 50, 1974, pp 93-96.
- Mayer, W. and Pleeter, S., "A Theoretical Justification for the Use of Location Quotients", Regional Science and Urban Economics, Vol 5, 1975, pp 343-355.
- Robinson, D.P., Hamilton, J.W., Webster, R.D., and Olson, M.J., Economic Impact Forecast System (EIFS) II: User's Manual, Updated Edition, Technical Report N-69/ADA144950, U.S. Army Construction Engineering Research Lab (USACERL),1984.
- Robinson, D.P. and Webster,R.D., Enhancements to the Economic Impact Forecast System (EIFS), Technical Report N-175/ADA142652, USACERL, April, 1984.
- Rogers, Claudia and Webster, Ron, "Qualitative Answers to Quantitative Questions", Impact Assessment, IAIA, Vol.12, No.1, 1999.
- Thompson, W., A Preface to Urban Economics, Johns Hopkins Press, 1965.
- Tiebout, C., The Community Economic Base, New York Committee for Economic Development, 1962.
- USACERL, " Methods for Evaluating the Significance of Impacts: The RTV and FSI Profiles"; USACERL EIFS Tutorial; July 1987.
- U.S. Army, Department of the Army, DA Pamphlet 200-2, "Economic Impact Forecast System-User Instructions", 1980.
- U.S. Army, "Base Realignment and Closure "How-To" Manual for Compliance with the National Environmental Policy Act", revised and published as official Department of Army Guidance, 1995.
- U.S. Army, Army Regulation 5-20, "Commercial Activities"
- U.S. Army, Department of the Army, DA Pamphlet 200-2, "Economic Impact Forecast System-User Instructions", 1980
- Webster, R.D.and Shannon, E.; The Rational Threshold Value (RTV) Technique for the Evaluation of Regional Economic Impacts; USACERL Technical Report TR N-49/ADA055561; 1978.
- Webster, R.D., Hamilton, J.W., and Robinson, D.P., "The Two-Tier Concept for Economic Analysis: Introduction and User Instructions", USACERL Technical Report N-127/ADA118855.

These efforts reflect development of a tool for specific NEPA application, following the successful NEPA litigation referenced in the Introduction. As EIFS has been used for Army NEPA analyses, the results of EIFS analyses have been reviewed by stakeholder (affected community) representatives, and, as a result of BRAC application, twice reviewed by the Government Accounting Office (GAO). During such reviews, the analyses and resultant decisions were upheld, and EIFS was lauded as a uniform (non-arbitrary and non-capricious) approach to such requirements. Drawing from a national, uniform database, and using a common, systematic approach, EIFS allowing the improved comparison of project alternatives (the heart of NEPA analysis), and provides comparable analyses across the U.S.

NEPA Process Improvement:

Since NEPA was implemented, it has been commonly criticized as expensive and time-consuming. While these criticisms have been often justified, the President's Council on Environmental Quality (CEQ) has actively promoted NEPA process improvements; first

in the publication of the CEQ NEPA regulations (CEQ, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, Reprint, 40 CFR Parts 1500-1508, Executive Office of the President, Council on Environmental Quality, 1992.), and, more recently, through a NEPA anniversary introspective (CEQ, The National Environmental Policy Act: A Study of its Effectiveness After Twenty-five Years, Executive Office of the President, Council on Environmental Quality, January, 1997.) and the formal CEQ NEPA Task Force (CEQ, The NEPA Task Force Report to the Council on Environmental Quality: Modernizing NEPA Implementation; September, 2003.). All three CEQ initiatives call for more "focus" on NEPA documents, eliminating the analyses of minor or unimportant issues, and focusing, instead, on those issues that should be part of an informed agency decision. The use of EIFS, and the "two-tier" approach is consistent with these CEQ recommendations.

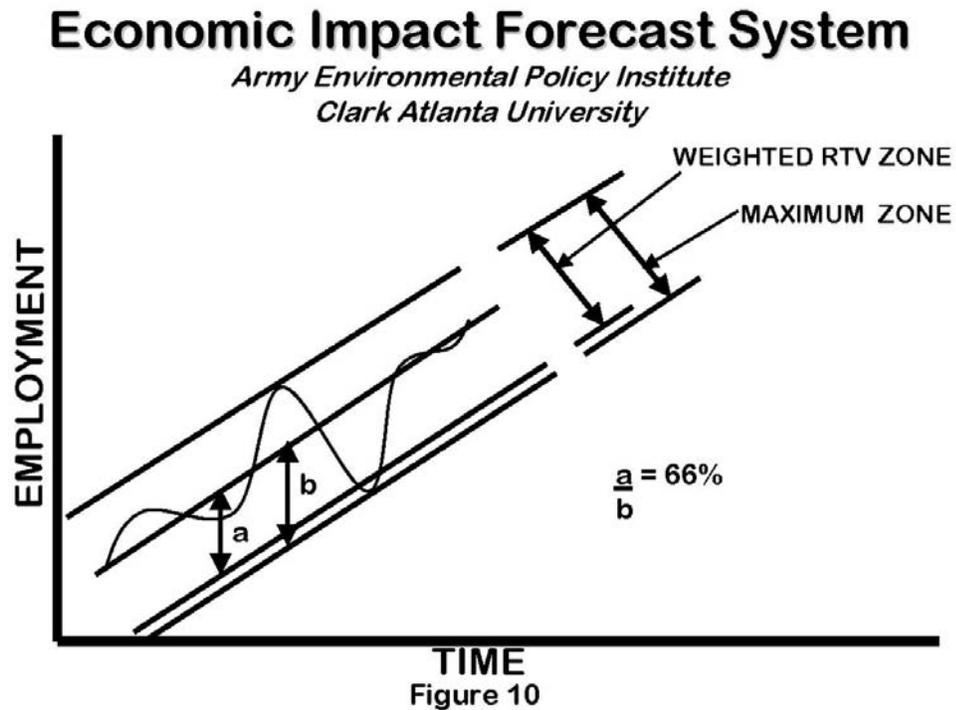
Determining Significance:

While EIFS was being developed, communities began to question the rationale for determining the significance of socioeconomic impacts. USACERL was directed to develop a defensible procedure for such a determination, resulting in the Rational Threshold Value (RTV) technique (Webster, R.D.; and Shannon, E.; The Rational Theshold Value (RTV) Technique for the Evaluation of Regional Economic Impacts; USACERL Technical Report TR N-49/ADA055561; 1978). This technique relies on the yearly Bureau of Economic Analysis (BEA) time series data on employment, income, and population to evaluate historical trends within a subject community (region); and uses those trends to measure the "resilience" of the local community to change, or its ability to accommodate such change. This approach has worked well when communicating with affected communities. The combined use of RTV with the EIFS model meet the two pronged approach for significance determinations, intensity and context (CEQ, 1992)

The initial EIFS implementation (USACERL, 1975) included the analysis of numerous variables: business volume, personal income, employment, government revenues and expenditures, income and employment distribution, local housing impacts, regional economic stability, school system impacts, government bond obligations, population, welfare and dependency, social control, and aesthetic considerations. The selection of these variables was based on the predictive capability of forecasting techniques and data availability. Over some 30 years of practice, pragmatism and sufficiency led to the use of sales volume, employment, personal income, and population as indicators of impacts (as a "first tier" approximation of effects). These effects can also be readily evaluated (and significance determined) using the BEA time series data. Population, important in its own right, is also a valuable indicator of other factors (e.g., impact on local government revenues and expenditures, housing, local school systems, and the change in welfare and dependency), as impacts on such variables are driven, to a large extent, by a population change.

Using BEA time series data is used to analyze the four variables for the ROI, the RTV model produces thresholds for assessing the magnitude of impacts. The RTV technique is

simple, starting with a straight line between the first year of record and the last year of record for that variable, establishing the average rate of change over time. Then, each yearly deviation from that growth rate is calculated and converted to a percentage. The largest historical changes (both increase and decrease) are used to define significance thresholds. The following figure illustrates the RTV concept:



A "factor of safety" is applied to negative thresholds, as shown in the figure, to produce a conservative analysis; while 100% of the maximum positive thresholds is used; as indicated below:

	<u>Increase</u>	<u>Decrease</u>
Total sales volume	100 percent	75 percent
Total employment	100 percent	66 percent
Personal Income	100 percent	66 percent
Total population	100 percent	50 percent

The maximum positive historical fluctuation is used because of the positive connotations generally associated with economic growth. While economic growth can produce

unacceptable impacts and the "smart growth" concept is increasingly favored, the effects of reductions and closures are usually much more controversial. These adjustments, while arbitrary, are sensible. The negative sales volume threshold is adjusted by 75%, as sales volume impacts can be absorbed by such factors as the manipulation of inventory, new equipment, etc; and the impacts on individual workers or proprietors is indirect, if at all. Changes in employment and income, however, are impacts that immediately affect individuals; thus they are adjusted by 66%. Population is extremely important, as an indicator of other social issues, and is thus adjusted by 50%.

To adjust dollar amounts for inflation (to create "constant dollars" prior to calculations), the Consumer Price Index (CPI) is used for appropriate years, and all dollar values are adjusted to 1987 equivalents.

The main strength of the RTV approach stems from its reliance on data for each individual ROI. This approach addressed previous criticism of more simple approaches that applied arbitrary criteria to all communities. This approach establishes unique criteria, representative of local community patterns, and, while a community may not completely agree, a common frame of reference is established. Critics of the RTV technique have questioned the arbitrary selection of the maximum allowable deviations to indicate impact significance, but the process has proven workable over the years.

The Application of EIFS to the Proposed Action

To effect these analyses, the inputs to the EIFS model must be estimated. The normal EIFS inputs include:

- Number of affected (moving) civilians and their salaries
- Number of affected (moving) military employees and their salaries
- Percentage of affected military employees living on-post
- Changes in local procurement, contracting, and purchases
- Definition of the multi-county region of influence (ROI)

This data has often proven difficult to obtain, given the current immaturity of the proposed BRAC actions, or the inability to produce an early, detailed Description of Proposed Action and Alternatives (DOPAA), from which these input data could be extracted. In order to produce the required analyses, numerous data sources can be used as potential sources for EIFS input data. To initiate this analysis, Appendix B of the BRAC Commission announcement was reviewed; followed by inquiries from the affected installations, a part of DOPAA development. This data source provides no indication of timing, or the number of years required to implement the BRAC recommendations in the ROI. The changes in military and civilian employment were verified, estimates of salary levels were derived, and major changes in local procurements were ascertained (primarily any major construction required to support the proposed action). For the Fort McCoy BRAC 05 action, a \$21 million construction estimate was obtained.

Once input data, describing the nature of the proposed BRAC action, has been determined, the EIFS region of influence (ROI), a multi-county determination, must be defined. The regional definitions were taken directly from Appendix B of the BRAC announcement, which used the Metropolitan Statistical Areas (MSAs) where available, or counties in which the installation resides, if MSAs were not applicable. In the case of Fort McCoy, Monroe County was used.

The estimated inputs were used to produce EIFS reports (model results) for changes in total business volume, employment, income, and population. These are best shown as percentages (of the activity in the total ROI), and can be prepared to the RTVs for that variable in that ROI. The following EIFS documentation is provided; detailing the inputs, documenting projected changes, and evaluating the potential significance of the predicted change, based on the RTV technique:

FORECAST INPUT

Change In Local Expenditures	\$21,000,00	0
Change In Civilian Employment	51	
Average Income of Affected Civilian	\$45,000	
Percent Expected to Relocate	100	
Change In Military Employment	-282	
Average Income of Affected Military	\$43,500	
Percent of Militart Living On-post	0	

FORECAST OUTPUT

Employment Multiplier	2.67	
Income Multiplier	2.67	
Sales Volume - Direct	\$8,981,449	
Sales Volume - Induced	\$14,999,020	
Sales Volume - Total	\$23,980,470	0.81%
Income - Direct	-\$7,614,770	
Income - Induced)	\$2,691,786	
Income - Total(place of work)	-\$4,922,984	-0.14%
Employment - Direct	-187	
Employment - Induced	73	

Employment - Total	-114	-0.22%
Local Population	-575	
Local Off-base Population	-575	-0.41%

As indicated in the output, the positive effects of the construction and small civilian increase create a net positive effect of sales or business volume; but are offset, producing net negative effects for income employment, and population. As a result, the following positive RTV applies for sales volume, and the negative RTVs apply for income, employment, and population.

RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	12.43 %	7.4 %	5.07 %	2.23 %
Negative RTV	-11.05 %	-4.98 %	-5.17 %	-1.26 %

To further clarify the basis for the significance determination, the following time series data and RTV calculations are provided:

SALES VOLUME

Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	198511	867493	0	0	0
1970	203069	838675	-28818	-61473	-7.33
1971	226533	897071	58396	25741	2.87
1972	265066	1015203	118132	85477	8.42
1973	306557	1106671	91468	58813	5.31
1974	321070	1043478	-63193	-95848	-9.19
1975	327441	975774	-67703	-100358	-10.28
1976	376992	1063117	87343	54688	5.14
1977	437237	1154306	91188	58533	5.07
1978	487325	1198820	44514	11859	0.99
1979	519715	1148570	-50249	-82904	-7.22
1980	531915	1031915	-116655	-149310	-14.47
1981	618226	1088078	56163	23508	2.16
1982	661030	1097310	9232	-23423	-2.13
1983	728707	1173218	75909	43254	3.69
1984	682456	1050982	-122236	-154891	-14.74
1985	701711	1045549	-5433	-38088	-3.64

1986	843349	1231290	185740	153085	12.43
1987	892631	1383578	152288	119633	8.65
1988	1003823	1365199	-18379	-51034	-3.74
1989	1080090	1393316	28117	-4538	-0.33
1990	1132861	1393419	103	-32552	-2.34
1991	1154821	1362689	-30730	-63385	-4.65
1992	1270486	1448354	85665	53010	3.66
1993	1326062	1471929	23575	-9080	-0.62
1994	1446349	1562057	90128	57473	3.68
1995	1552315	1629931	67874	35219	2.16
1996	1595111	1627013	-2917	-35572	-2.19
1997	1685313	1685313	58300	25645	1.52
1998	1791911	1756073	70760	38105	2.17
1999	1955854	1877620	121547	88892	4.73
2000	2056403	1912455	34835	2180	0.11

INCOME

Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	438453	1916040	0	0	0
1970	446258	1843046	-72994	-132576	-7.19
1971	487393	1930076	87031	27449	1.42
1972	556579	2131698	201621	142039	6.66
1973	635976	2295873	164176	104594	4.56
1974	681921	2216243	-79630	-139212	-6.28
1975	727402	2167658	-48585	-108167	-4.99
1976	832796	2348485	180827	121245	5.16
1977	951512	2511992	163507	103925	4.14
1978	1068541	2628611	116619	57037	2.17
1979	1188638	2626890	-1721	-61303	-2.33
1980	1288947	2500557	-126333	-185915	-7.43
1981	1392091	2450080	-50477	-110059	-4.49
1982	1439271	2389190	-60890	-120472	-5.04
1983	1540078	2479526	90336	30754	1.24
1984	1651688	2543599	64074	4492	0.18
1985	1756910	2617796	74196	14614	0.56
1986	1917301	2799260	181464	121882	4.35
1987	1991881	3087415	288156	228574	7.4
1988	2160379	2938115	-149300	-208882	-7.11

1989	2259648	2914946	-23170	-82752	-2.84
1990	2330376	2866363	-48583	-108165	-3.77
1991	2361495	2786564	-79799	-139381	-5
1992	2535527	2890501	103937	44355	1.53
1993	2733686	3034391	143891	84309	2.78
1994	2980725	3219183	184792	125210	3.89
1995	3120403	3276423	57240	-2342	-0.07
1996	3237891	3302649	26226	-33356	-1.01
1997	3442427	3442427	139778	80196	2.33
1998	3643533	3570662	128235	68653	1.92
1999	3836830	3683357	112694	53112	1.44
2000	4110397	3822669	139313	79731	2.09

EMPLOYMENT

Year	Value	Change	Deviation	%Deviation
1969	28273	0	0	0
1970	28386	113	-845	-2.98
1971	29043	657	-301	-1.04
1972	30768	1725	767	2.49
1973	32201	1433	475	1.48
1974	32581	380	-578	-1.77
1975	31335	-1246	-2204	-7.03
1976	32541	1206	248	0.76
1977	33950	1409	451	1.33
1978	34959	1009	51	0.15
1979	34965	6	-952	-2.72
1980	33348	-1617	-2575	-7.72
1981	34822	1474	516	1.48
1982	34466	-356	-1314	-3.81
1983	35122	656	-302	-0.86
1984	34092	-1030	-1988	-5.83
1985	35164	1072	114	0.32
1986	38050	2886	1928	5.07
1987	39899	1849	891	2.23
1988	41075	1176	218	0.53
1989	43585	2510	1552	3.56
1990	45678	2093	1135	2.48
1991	46388	710	-248	-0.53

1992	46668	280	-678	-1.45
1993	47291	623	-335	-0.71
1994	49130	1839	881	1.79
1995	50461	1331	373	0.74
1996	51087	626	-332	-0.65
1997	52624	1537	579	1.1
1998	54352	1728	770	1.42
1999	56953	2601	1643	2.88
2000	58915	1962	1004	1.7

POPULATION

Year	Value	Change	Deviation	%Deviation
1969	116021	0	0	0
1970	119640	3619	2668	2.23
1971	121589	1949	998	0.82
1972	123422	1833	882	0.71
1973	124301	879	-72	-0.06
1974	124906	605	-346	-0.28
1975	126297	1391	440	0.35
1976	127148	851	-100	-0.08
1977	129995	2847	1896	1.46
1978	132450	2455	1504	1.14
1979	134285	1835	884	0.66
1980	134732	447	-504	-0.37
1981	134729	-3	-954	-0.71
1982	132334	-2395	-3346	-2.53
1983	130888	-1446	-2397	-1.83
1984	130851	-37	-988	-0.76
1985	130386	-465	-1416	-1.09
1986	131150	764	-187	-0.14
1987	131852	702	-249	-0.19
1988	132040	188	-763	-0.58
1989	132700	660	-291	-0.22
1990	133892	1192	241	0.18
1991	134664	772	-179	-0.13
1992	135277	613	-338	-0.25
1993	135623	346	-605	-0.45
1994	136783	1160	209	0.15

1995	138631	1848	897	0.65
1996	140123	1492	541	0.39
1997	141725	1602	651	0.46
1998	143009	1284	333	0.23
1999	144525	1516	565	0.39
2000	146450	1925	974	0.67

Summary of Results

The EIFS analyses indicated that the proposed action will produce no major socioeconomic effects in the ROI (community).

The EIFS analyses indicated that the proposed action will produce no major socioeconomic effects in the ROI (community). The projected changes compare the appropriate RTVs as follows:

	<u>projected change</u>	<u>RTV</u>
business (sales) volume	0.81%	12.43%
income	-0.14%	-4.98%
employment	-0.22%	-5.17%
population	-0.41%	-1.26%

This significance determination is "conservative"--well within any errors produced through assumed EIFS input values. While these inputs could be refined, the results of the analysis (final determination) will certainly remain unchanged.