

Economic Impact Report

This report depicts the economic impact of the following Scenarios:

ET 0058: Realign and Colocate AWC to Ft. Leavenworth

The data in this report is rolled up by Region of Influence

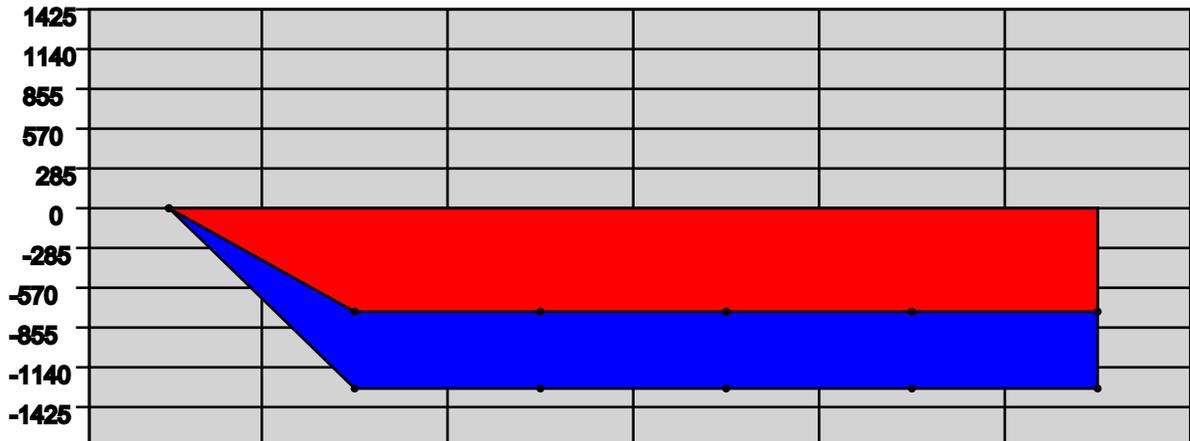
ECONOMIC IMPACT DATA

Scenario: All Selected (see title page)
Economic Region of Influence(ROI): Harrisburg-Carlisle, PA Metropolitan Statistical Area
Base: All Bases
Action: All Actions

Overall Economic Impact of Proposed BRAC-05 Action:

ROI Population (2002): 514,319
 ROI Employment (2002): 384,888
 Authorized Manpower (2005): 1,394
 Authorized Manpower(2005) / ROI Employment(2002): 0.36%
 Total Estimated Job Change: -1,299
 Total Estimated Job Change / ROI Employment(2002): -0.34%

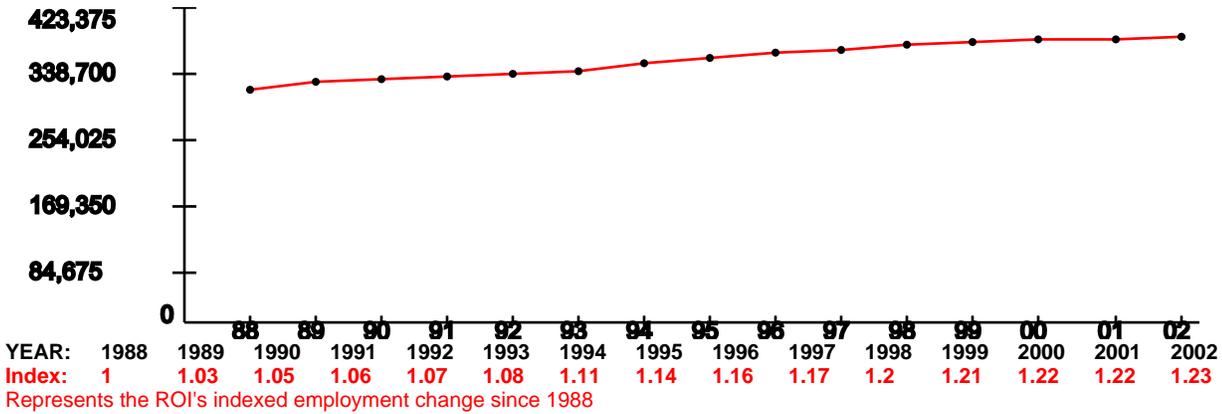
Cumulative Job Change (Gain/Loss) Over Time:



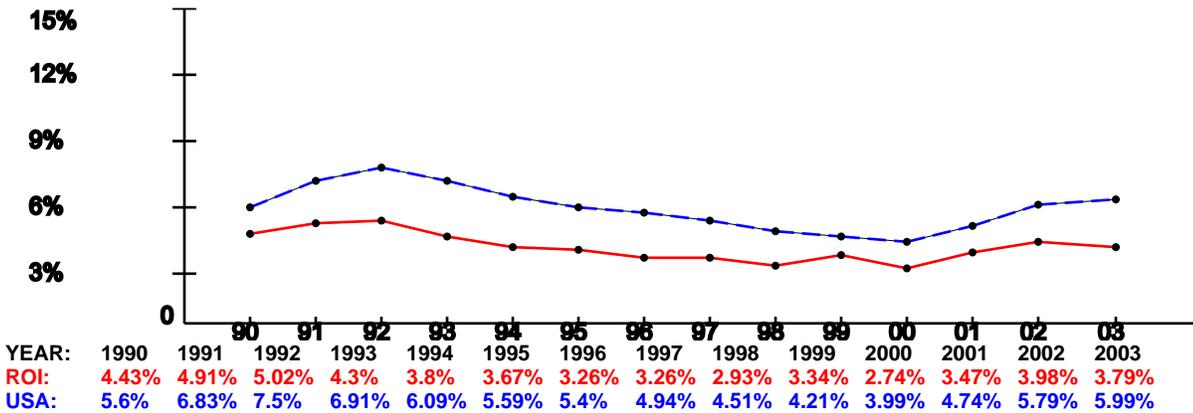
YEAR:	2006	2007	2008	2009	2010	2011
Direct Military:	0	-139	0	0	0	0
Direct Civilian:	0	-268	0	0	0	0
Direct Student:	0	-340	0	0	0	0
Direct Contractor:	0	0	0	0	0	0
Cumulative Direct:	0	-747	-747	-747	-747	-747
Cum Indlr/Induc:	0	-552	-552	-552	-552	-552
Cumulative Total:	0	-1299	-1299	-1299	-1299	-1,299

Harrisburg-Carlisle, PA Metropolitan Statistical Area Trend Data

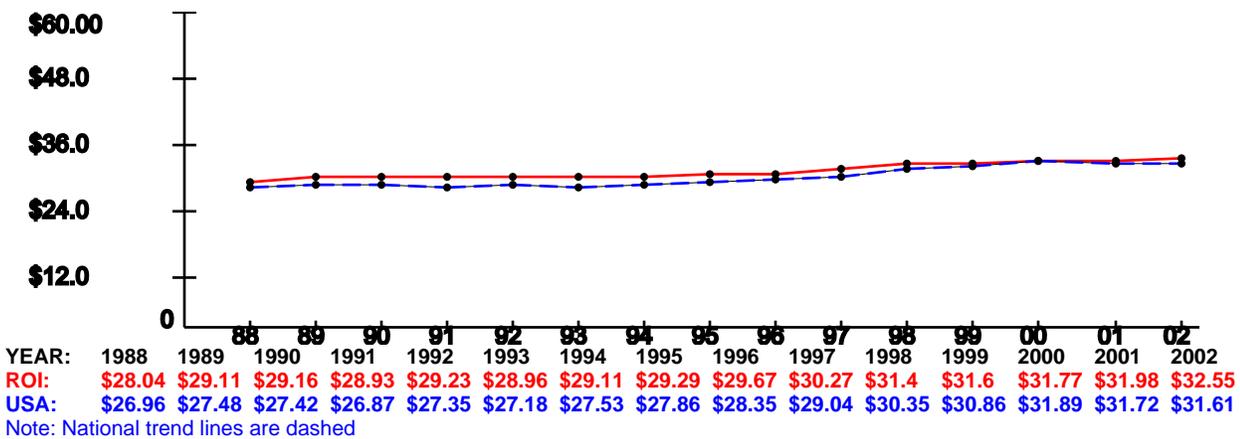
Employment Trend (1988-2002)



Unemployment Percentage Trend (1990-2003)



Per Capita Income x \$1,000 (1988-2002)



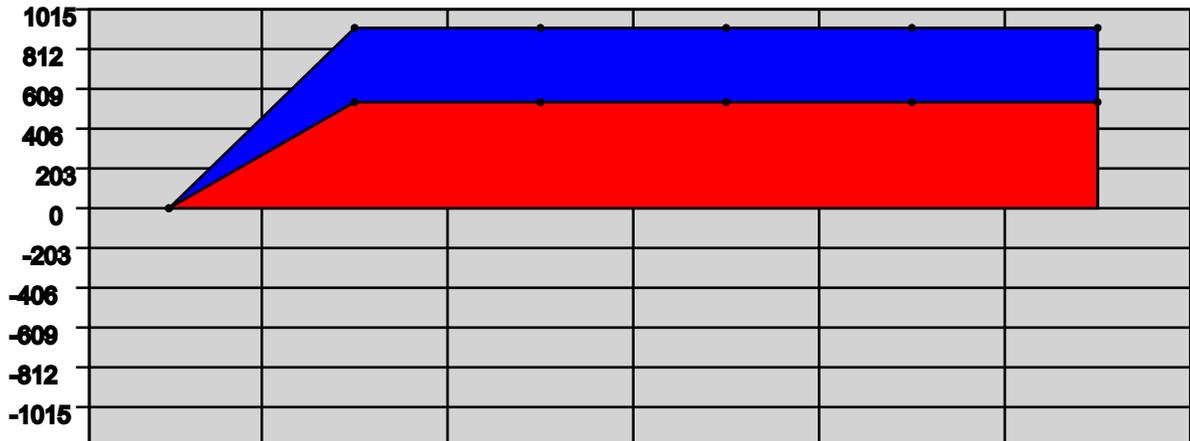
ECONOMIC IMPACT DATA

Scenario: All Selected (see title page)
Economic Region of Influence(ROI): Kansas City, MO-KS Metropolitan Statistical Area
Base: All Bases
Action: All Actions

Overall Economic Impact of Proposed BRAC-05 Action:

ROI Population (2002): 1,886,672
 ROI Employment (2002): 1,225,451
 Authorized Manpower (2005): 5,788
 Authorized Manpower(2005) / ROI Employment(2002): 0.47%
 Total Estimated Job Change: 924
 Total Estimated Job Change / ROI Employment(2002): 0.08%

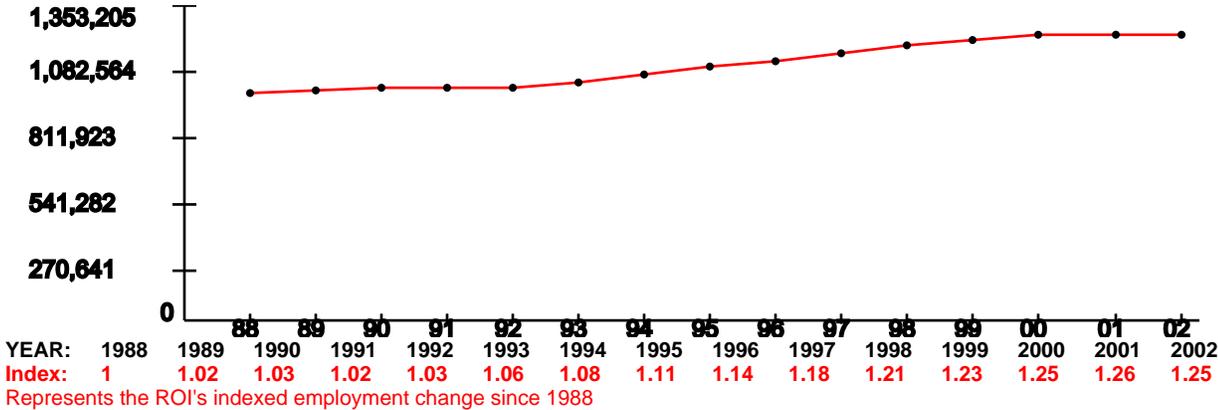
Cumulative Job Change (Gain/Loss) Over Time:



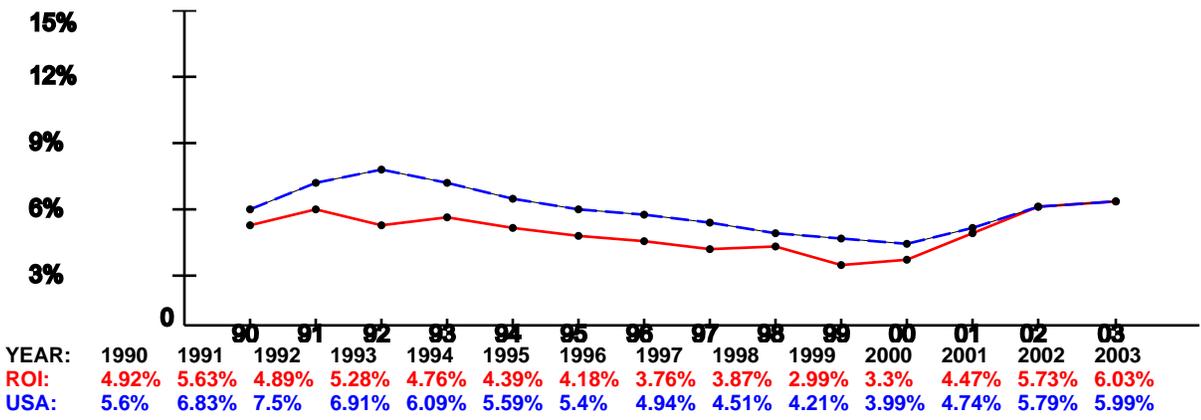
YEAR:	2006	2007	2008	2009	2010	2011
Direct Military:	0	68	0	0	0	0
Direct Civilian:	0	134	0	0	0	0
Direct Student:	0	340	0	0	0	0
Direct Contractor:	0	0	0	0	0	0
Cumulative Direct:	0	542	542	542	542	542
Cum Indir/Induc:	0	382	382	382	382	382
Cumulative Total:	0	924	924	924	924	924

Kansas City, MO-KS Metropolitan Statistical Area Trend Data

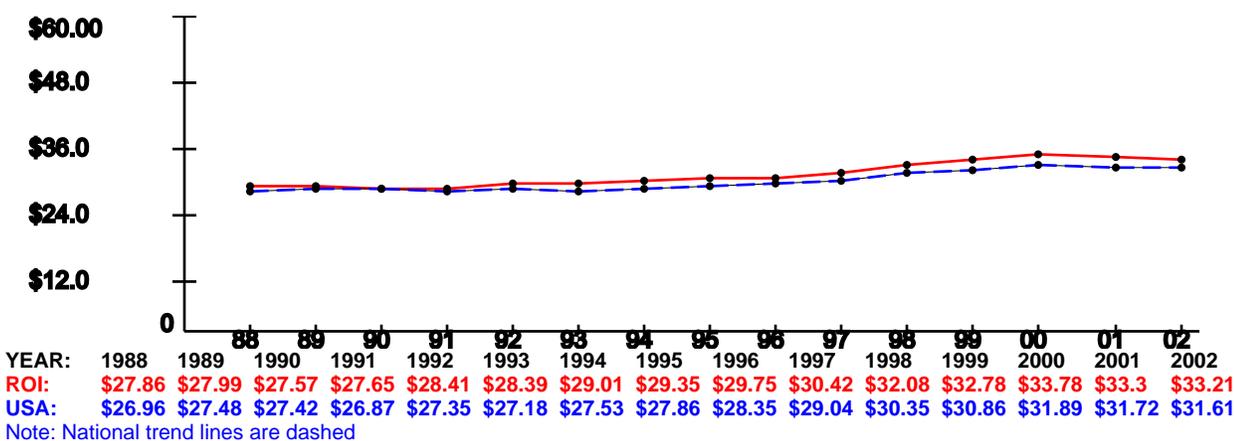
Employment Trend (1988-2002)



Unemployment Percentage Trend (1990-2003)



Per Capita Income x \$1,000 (1988-2002)



CARLISLE BARRACKS, PA

Demographics

The following tables provide a short description of the area near the installation/activity. CARLISLE BARRACKS is 93.7 miles from Baltimore, MD, the nearest city with a population of 100,000 or more. The nearest metropolitan statistical area (MSA) is

MSA	Population
Harrisburg-Lebanon-Carlisle MSA	629,410

The following entities comprise the military housing area (MHA):

County/City	Population
Cumberland	213674
Dauphin	251798
Lancaster	470658
Lebanon	120327
Perry	43602
York	381751
Total	1,481,810

Child Care

This attribute captures the number of nationally accredited child-care centers within the local community: 8

Cost of Living

Cost of Living provides a relative measure of cost of living in the local community. General Schedule (GS) Locality Pay provides a relative scale to compare local salaries with government salaries and Basic Allowance for Housing (BAH) is an indicator of the local rental market. In-state tuition is an indicator of the support provided by the state for active duty family members to participate in higher-level education opportunities.

Median Household Income	(US Avg \$41,994)	\$43,022	Basis: MSA
Median House Value	(US Avg \$119,600)	\$107,500	
GS Locality Pay	("Rest of US" 10.9%)	10.9%	
O-3 with Dependents BAH Rate		\$1,169	
In-state Tuition for Family Member		No	
In-state Tuition Continues if Member PCSs Out of State			

Education

This attribute defines the population in local school districts and identifies capacity. The pupil/teacher ratio, graduation rate, percentage of certified teachers and composite SAT I/ACT scores provide a relative quality indicator of education. This attribute also attempts to give communities credit for the potential intellectual capital they provide.

NOTE: “MFR” means a Memorandum For Record is on file at the installation/activity/agency to document problems in obtaining the required information. Reasons for not being able to obtain information may be that the school district refused to provide the information or the school district does not use or track the information.

If the installation/activity/agency has incomplete information from the local school system in order to accurately compute a score in this area, the number of school districts reporting information will be captured in addition to the computed answer.

		Basis
School District(s) Capacity	11,525	3 of 4 districts
Students Enrolled	13,657	4 of 4 districts
Average Pupil/Teacher Ratio	21.7:1	4 of 4 districts
High School Students Enrolled	6,991	5 of 5 districts
Average High School Graduation Rate (US Avg 67.3%)	90.1%	5 of 5 districts
Average Composite SAT I Score (US Avg 1026)	1059	5 of 5 districts
Average ACT Score (US Avg 20.8)	21	5 of 5 districts
Available Graduate/PhD Programs	11	
Available Colleges and/or Universities	17	
Available Vocational and/or Technical Schools	33	

Employment

Unemployment and job growth rates provide a relative merit of job availability in the local community. National rates from the Bureau of Labor Statistics are also provided.

The unemployment rates for the last five-years:

	1999	2000	2001	2002	2003
Local Data	3.3%	2.7%	3.4%	4.0%	3.8%
National	4.2%	4.0%	4.7%	5.8%	6.0%
Basis:	MSA	MSA	MSA	MSA	MSA

The annual job growth rate for the last five-years:

	1999	2000	2001	2002	2003
Local Data	-.2%	-.7%	1.4%	1.7%	-1.3%
National	1.5%	2.4%	.03%	-.31%	.86%
Basis:	MSA	MSA	MSA	MSA	MSA

Housing

This attribute provides an indication of availability of housing, both sales and rental, in the local community. Note: according to the 2000 Census, Vacant Sale and Vacant Rental Units do not equal Total Vacant Housing Units; Total Vacant Housing Units may also include units that are vacant but not on the market for sale or rent.

Total Vacant Housing Units	17,414	Basis: MSA
Vacant Sale Units	3,596	
Vacant Rental Units	6,427	

Medical Providers

This attribute provides an indicator of availability of medical care for military and DoD civilians in the local community. The table reflects the raw number of physicians/beds and ratio of physicians/beds to population.

	# Physicians	# Beds	Population	Basis: MSA
Local Community	1,977	1,530	629,410	
Ratio	1:318	1:411		
National Ratio (2003)	1:421.2	1:373.7		

Safety/Crime

The local community's Uniform Crime Reports (UCR) Index for 2002 per 100,000 people and the national UCR based on information from the Federal Bureau of Investigation (FBI) for 2002:

Local UCR	2,563.0	Basis: MSA
National UCR	4,118.8	

Transportation

Distance to an airport shows convenience and availability of airline transportation. Public transportation shows potential for members and DoD civilians to use it to commute to/from work under normal circumstances and for leisure.

Distance from CARLISLE BARRACKS to nearest commercial airport: 32.0 miles
Is CARLISLE BARRACKS served by regularly scheduled public transportation?

Utilities

This attribute identifies a local community's water and sewer systems' ability to receive 1,000 additional people.

Does the local community's water system have the ability to meet an expanded need of an additional 1,000 people moving in the local community? Yes

Does the local community's sewer system have the ability to meet an expanded need of an additional 1,000 people moving in the local community? Yes

FORT LEAVENWORTH, MO

Demographics

The following tables provide a short description of the area near the installation/activity. FORT LEAVENWORTH is 32.3 miles from Kansas City, KS, the nearest city with a population of 100,000 or more. The nearest metropolitan statistical area (MSA) is

MSA	Population
Kansas City, MO-KS MSA	1,776,062

The following entities comprise the military housing area (MHA):

County/City	Population
Leavenworth	68691
Platte	73781
Total	142,472

Child Care

This attribute captures the number of nationally accredited child-care centers within the local community: 5

Cost of Living

Cost of Living provides a relative measure of cost of living in the local community. General Schedule (GS) Locality Pay provides a relative scale to compare local salaries with government salaries and Basic Allowance for Housing (BAH) is an indicator of the local rental market. In-state tuition is an indicator of the support provided by the state for active duty family members to participate in higher-level education opportunities.

Median Household Income	(US Avg \$41,994)	\$46,193	Basis: MSA
Median House Value	(US Avg \$119,600)	\$104,700	
GS Locality Pay	("Rest of US" 10.9%)	11.5%	
O-3 with Dependents BAH Rate		\$1,111	
In-state Tuition for Family Member		Yes	
In-state Tuition Continues if Member PCSs Out of State			

Education

This attribute defines the population in local school districts and identifies capacity. The pupil/teacher ratio, graduation rate, percentage of certified teachers and composite SAT

I/ACT scores provide a relative quality indicator of education. This attribute also attempts to give communities credit for the potential intellectual capital they provide.

NOTE: “MFR” means a Memorandum For Record is on file at the installation/activity/agency to document problems in obtaining the required information. Reasons for not being able to obtain information may be that the school district refused to provide the information or the school district does not use or track the information.

If the installation/activity/agency has incomplete information from the local school system in order to accurately compute a score in this area, the number of school districts reporting information will be captured in addition to the computed answer.

		Basis
School District(s) Capacity	66,442	14 of 14 districts
Students Enrolled	53,700	14 of 14 districts
Average Pupil/Teacher Ratio	14.7:1	14 of 14 districts
High School Students Enrolled	14,980	14 of 14 districts
Average High School Graduation Rate (US Avg 67.3%)	81.1%	14 of 14 districts
Average Composite SAT I Score (US Avg 1026)	667	14 of 14 districts
Average ACT Score (US Avg 20.8)	20	14 of 14 districts
Available Graduate/PhD Programs	11	
Available Colleges and/or Universities	14	
Available Vocational and/or Technical Schools	3	

Employment

Unemployment and job growth rates provide a relative merit of job availability in the local community. National rates from the Bureau of Labor Statistics are also provided.

The unemployment rates for the last five-years:

	1999	2000	2001	2002	2003
Local Data	3.0%	3.3%	4.4%	5.7%	6.0%
National	4.2%	4.0%	4.7%	5.8%	6.0%
Basis:	MSA	MSA	MSA	MSA	MSA

The annual job growth rate for the last five-years:

	1999	2000	2001	2002	2003
Local Data	1.9%	1.8%	-1.9%	-1.2%	1.9%

National	1.5%	2.4%	.03%	-.31%	.86%
Basis:	MSA	MSA	MSA	MSA	MSA

Housing

This attribute provides an indication of availability of housing, both sales and rental, in the local community. Note: according to the 2000 Census, Vacant Sale and Vacant Rental Units do not equal Total Vacant Housing Units; Total Vacant Housing Units may also include units that are vacant but not on the market for sale or rent.

Total Vacant Housing Units	46,416	Basis: MSA
Vacant Sale Units	9,125	
Vacant Rental Units	20,197	

Medical Providers

This attribute provides an indicator of availability of medical care for military and DoD civilians in the local community. The table reflects the raw number of physicians/beds and ratio of physicians/beds to population.

	# Physicians	# Beds	Population	
Local Community	4,720	5,244	1,776,062	Basis: 2 of 2 counties
Ratio	1:376	1:339		
National Ratio (2003)	1:421.2	1:373.7		

Safety/Crime

The local community's Uniform Crime Reports (UCR) Index for 2002 per 100,000 people and the national UCR based on information from the Federal Bureau of Investigation (FBI) for 2002:

Local UCR	506.0	Basis: 2 of 2 counties
National UCR	4,118.8	

Transportation

Distance to an airport shows convenience and availability of airline transportation. Public transportation shows potential for members and DoD civilians to use it to commute to/from work under normal circumstances and for leisure.

Distance from FORT LEAVENWORTH to nearest commercial airport: 16.9 miles
Is FORT LEAVENWORTH served by regularly scheduled public transportation? No

Utilities

This attribute identifies a local community's water and sewer systems' ability to receive 1,000 additional people.

Does the local community's water system have the ability to meet an expanded need of an additional 1,000 people moving in the local community? Yes

Does the local community's sewer system have the ability to meet an expanded need of an additional 1,000 people moving in the local community? Yes

SUMMARY OF SCENARIO ENVIRONMENTAL IMPACTS**[TABS WORKING DRAFT]**SCENARIO # 79TITLE: WAR COLLEGE TO LEAVENWORTHGENERAL DESCRIPTION: Close Carlisle Barracks and move the Army War College (Carlisle) to LeavenworthANALYST SUSAN PANZITTADATE: 22 SEPT. 04(UPDATED 13 DEC 2004)

Env Resource Area	<i>Gaining</i> Installation Assessment Inst Name: Ft. Leavenworth	Analyst Comments (& data source(s) that drive assessment)
Air Quality	May need to consider Carbon Monoxide Impact.	#213- Currently in non-attainment for Carbon Monoxide. No SIP growth allowance & no emissions credit program. #211,220- ok- Synthetic minor op permit #218/ISR - No restr
Cultural/Archaeological/Tribal Resources	If new construction is required , may need to generate documentation	#230 - Approx 54 arch resources reported; #232 High potential identified #231 - No Native People sites #234 - 100% surveyed #235 - 231 Historical properties
Dr ed g- ing	No impact.	
Land Use Constraints/	No impact.	Buildable Acres - 36 req'd, >1400 acres available.
Mar ine Mammals/ Marine	No impact.	
Noise	No impact - no noise generated by proposal.	
Threatened & Endangered Species/ Critical Habitat	No impact.	#259 - 1 Federally listed species (bald eagle), with no impact on installation. #260-264 - No habitat/candidate species
Waste Management	No impact.	#269 - No RCRA Subpart X
Water Resources	No impact.	#276,278,293 - No restr IREM - Water infr can support addl 38767 pers, scenario adds 973
Wetlands	No impact.	

SUBJECT: SUMMARY OF SCENARIO ENVIRONMENTAL IMPACTS (CONTINUED); [TABS WORKING DRAFT]

SCENARIO # 79

Env Resource Area	<i>Lossing</i> Installation Assessment Inst Name: Carlisle Barracks	Analyst Comments (& data source(s) that drive assessment)
Air Quality	Installation is projected to be in non-attainment for O3 (8 hr). Closure should impact positively.	#213 - All NAAQS is in marginal non-attainment for O3 (1 Hr), and projected to be in non-attainment for O3 (8 hr).
Cultural/Archeological/Tribal Resources	Archeological and historical resources present. Survey and consultation with the SHPO will be required to ensure protection of resources.	#230 - 2 cultural resources reported; #232 High potential identified #231 - No Native People sites #234 - 100% surveyed #235 - 77 Historical properties
Dredging	No impact.	
Land Use Constraints/Sensitive Resource Areas	Minimal impact - MMRP sites reported, but no operational ranges require cleanup.	#240 - No DERA sites #273 - No MMRAs (DERP 2003 shows new MMRP site added - \$2.56M CTC.) No operational ranges
Marine Mammals/Marine Resources / Marine Sanctuaries	No impact.	
Noise	Positive impact.	
Threatened & Endangered Species/Critical Habitat	No impact.	#259 -264 - No TES/habitat/candidate species
Waste Management	No impact.	#265 - No RCRA TSDF #269 - No RCRA Subpart X #272 - No permitted solid waste disposal facility.
Water Resources	No impact.	#275 - No groundwater contamination. #281 - No surface water contamination.
Wetlands	No impact.	

SUBJECT: SUMMARY OF SCENARIO ENVIRONMENTAL IMPACTS (CONTINUED); [TABS WORKING DRAFT]

SCENARIO # 79

IMPACTS OF COSTS

Env Resource Area	Gaining Installation Inst Name: <u>Ft. Leavenworth</u>	Losing Installation Inst Name: <u>Carlisle Barracks</u>
Environmental Restoration*		DERP 2003 - MMRP sites with \$2.56M CTC.
Waste Management		
Environmental Compliance		Environmental Baseline Survey (EBS) \$200K-300K. Asbestos/Lead-Based Paint Removal - \$200K – \$1M Access controls/Caretaker Management - \$500K - \$1M
COBRA Costs:		

Candidate Recommendation E&T # 0058

Candidate Recommendation: Realign Carlisle Barracks, Pennsylvania, by relocating the United States Army War College to Fort Leavenworth, Kansas, and consolidating it with the United States Army Command and General Staff College at Fort Leavenworth, Kansas, to create the Land Warfare University.

Justification: This recommendation provides a Service-centric approach to senior level education and is based upon the foundational Education and Training Joint Cross Service Group Guiding Principles of “Achieving Synergy” and “Minimizing Redundancy.” The recommendation promotes the concept of an Army Land Warfare University by placing officer strategic and operational level education at one location, promoting training effectiveness and functional efficiencies.

Payback: The total estimated one-time cost to the Department of Defense to implement this recommendation is \$45.979 million. The net of all costs and savings to the Department during the implementation period is a savings \$43.788 million. Annual recurring savings to the Department after implementation are \$19.627 million, with payback expected in two years. The net present value of the costs and savings to the Department over 20 years is a savings of \$220.390 million.

Impacts:

Economic Impact:

Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 1,299 jobs (747 direct jobs and 552 indirect jobs) over the 2006-2011 period in the Harrisburg-Carlisle, PA Metropolitan Statistical Area, which is 0.34% of economic area employment.

Community Infrastructure: A review of community attributes indicates no issues regarding the ability of the infrastructure of the communities to support missions, forces, and personnel.

Environmental Impact: This recommendation may impact air quality at Fort Leavenworth, which is currently in nonattainment for CO. Added operations will require New Source Review permitting and Air Conformity Analysis. Archeological and historical resources are present at Carlisle Barracks. Survey and consultation with the SHPO will be required to ensure protection of resources. Special waste management areas at Carlisle Barracks include MMRP sites. Restoration, monitoring/sweeps, access controls, and/or deed restrictions may be required. Federally listed species at Ft Leavenworth include Bald Eagle, with no impact to mission or training land. Additional operations may impact Threatened/Endangered species possibly leading to restrictions on operations. This recommendation has no impact on dredging; marine mammals, resources or sanctuaries; noise; waste management; water resources; or wetlands. This

recommendation will require an air conformity analysis, new source review analysis and permitting, and National Environmental Policy Act documentation at Fort Leavenworth and National Environmental Policy Act documentation at Carlisle Barracks. The approximately \$1.55M cost for these actions was included in the payback calculation. This recommendation does not otherwise impact the costs of environmental restoration, waste management, and environmental compliance activities.

8 Attachments:

- 1) Competing Recommendations
- 2) Force Structure Capabilities
- 3) Military Value Summary
- 4) Capacity Analysis
- 5) COBRA Results
- 6) Economic Impact Report
- 7) Installation Criterion 7 Profile
- 8) Summary of Scenario Environmental Impacts

Attachment 1

Competing Recommendations: This recommendation competes with HSA-0022 and HSA-0005 for limited capacity at Fort Leavenworth.

Attachment 2

Force Structure Capabilities. This recommendation has been constructed to accommodate the current and surge requirements. This recommendation is consistent with the 20-Year Force Structure Plan.

Attachment 3 - Military Value Analysis

The chart below depicts the military value scores for Joint Professional Military Education (JPME) functions. (E&T-0058: Realign the US Army War College with the US Army Command and General Staff College and Co-locate at Ft. Leavenworth, KS)

Education and Training JCSG	
Professional Development Education (PDE) Subgroup	
PME	
Installation/Location	Numerical Military Value Score
Marine Corps Base Quantico	62.8
Ft. McNair	61.2
Ft. Leavenworth	59.8
Maxwell AFB	54.1
Carlisle Barracks	53.8
Naval Station Newport RI	52.7

Attachment 4 - Capacity Analysis

The chart below depicts the capacity analysis information for Joint Professional Military Education (JPME) functions. (E&T-0058: Realign the US Army War College with the US Army Command and General Staff College and Co-locate at Ft. Leavenworth, KS)

Activity	Current Capacity	Current Usage	Max Potential Capacity	Capacity Available to Surge	**Capacity Required to Surge	Excess Capacity
MCB Quantico	2440.0	1841.6	12166.7	10325.1	0	598.4
Ft. Leavenworth	1369146.9	121136.0	1369146.9	1248010.9	0	153443.6
Maxwell AFB	67416.6	11192.6	336161.9	324969.3	0	56224.0
Carlisle Barracks	85893.0	28672.0	428291.6	399619.6	0	57221.0
NAVSTA Newport	92244.5	63230.6	459962.4	396731.8	0	29013.9
Ft. McNair	49000.2	31109.3	244331.6	213222.3	0	17890.9

* Installation PDE capacity is measured in classroom equivalent hours available each year

** The “Capacity Required to Surge” value of “0” = n/a

INSTALLATION ENVIRONMENTAL PROFILE
CARLISLE BARRACKS

1. Air Quality (DoD Question #210-225):

- a. The Clean Air Act (CAA) establishes health-based standards for air quality and all areas of the country are monitored to determine if they meet the standards. A major limiting factor is whether the installation is in an area designated nonattainment or maintenance (air quality is not meeting the standard) and is therefore subject to more stringent requirements, including the CAA General Conformity Rule. Conformity requires that any new emissions from military sources brought into the area must be offset by credits or accounted for in the State Implementation Plan (SIP) emissions budget. The criteria pollutants of concern include: CO, O₃ (1 hour & 8 Hour), and PM (PM₁₀, and PM_{2.5}). Installations in attainment areas are not restricted, while activities for installations in non-attainment areas may be restricted. Non-attainment areas are classified as to the degree of non-attainment: Marginal, Moderate, Serious, and in the case of O₃, Severe and Extreme. SIP Growth Allowances and Emission Reduction Credits are tools that can be used to accommodate increased emissions in a manner that conforms to a state's SIP. All areas of the country require operating permits if emissions from stationary sources exceed certain threshold amounts. Major sources already exceed the amount and are subject to permit requirements. Synthetic minor means the base has accepted legal limits to its emissions to stay under the major source threshold. Natural or true minor means the actual and potential emissions are below the threshold.
- b. **CARLISLE BARRACKS is in Marginal Nonattainment for Ozone (1 hr). It holds a CAA Synthetic Minor Operating Permit. Emission credit programs may be available. No SIP growth allowance has been allocated for this installation. CARLISLE BARRACKS is in an area projected or proposed to be designated nonattainment for the 8-hour Ozone or the PM_{2.5} NAAQS.**

2. Cultural/Archeological/Tribal Resources (DoD Question #229-237):

- a. Many installations have historical, archeological, cultural and Tribal sites of interest. These sites and access to them often must be maintained, or consultation is typically required before changes can be made. The sites and any buffers surrounding them may reduce the quantity or quality of land or airspace available for training and maneuvers or even construction of new facilities. The presence of such sites needs to be recognized, but the fact that restrictions actually occur is the overriding factor the data call is trying to identify. A programmatic agreement with the State Historic Preservation Office (SHPO) facilitates management of these sites.
- b. **Historic property has been identified on CARLISLE BARRACKS. There is a programmatic agreement for historic property in place with the SHPO. It has sites with high archeological potential identified, which restrict construction and do not restrict operations. Formal consultation with Native Tribes has occurred within the last two years.**

3. Dredging (DoD Question # 226-228):

- a. Dredging allows for free navigation of vessels through ports, channels, and rivers. Identification of sites with remaining capacity for the proper disposal of dredge spoil is the

primary focus of the profile. However, the presence of unexploded ordnance or any other impediment that restricts the ability to dredge is also a consideration.

- b. **CARLISLE BARRACKS** has no impediments to dredging.

4. Land Use Constraints/Sensitive Resource Areas (DoD Question #198-201, 238, 240-247, 254-256, 273):

- a. Land use can be encroached from both internal and external pressures. This resource area combines several different types of possible constraints. It captures the variety of constraints not otherwise covered by other areas that could restrict operations or development. The areas include electromagnetic radiation or emissions, environmental restoration sites (on and off installation), military munitions response areas, explosive safety quantity distance arcs, treaties, underground storage tanks, sensitive resource areas, as well as policies, rules, regulations, and activities of other federal, state, tribal and local agencies. This area also captures other constraining factors from animals and wildlife that are not endangered but cause operational restrictions. This resource area specifically includes information on known environmental restoration costs through FY03 and the projected cost-to-complete the restoration.
- b. **CARLISLE BARRACKS** reports that 45 unconstrained acres are available for development out of 458 total acres. **CARLISLE BARRACKS** has spent \$0M thru FY03 for environmental restoration, and has estimated the remaining Cost to Complete at \$0M. **CARLISLE BARRACKS does not have** Explosive Safety Quantity Distance Arcs.

5. Marine Mammal/Marine Resources/Marine Sanctuaries (DoD Question #248-250, 252-253):

- a. This area captures the extent of any restrictions on near shore or open water testing, training or operations as a result of laws protecting Marine Mammals, Essential Fish Habitat, and other related marine resources.
- b. **CARLISLE BARRACKS is not** impacted by laws and regulations pertaining to Marine Mammal Protection Act, Essential Fish Habitats & Fisheries and Marine Sanctuaries, which may adversely restrict navigation and operations.

6. Noise (DoD Question # 202-209, 239):

- a. Military operations, particularly aircraft operations and weapons firing, may generate noise that can impact property outside of the installation. Installations with significant noise will typically generate maps that predict noise levels. These maps are then used to identify whether the noise levels are compatible with land uses in these noise-impacted areas. Installations will often publish noise abatement procedures to mitigate these noise impacts.
- b. **CARLISLE BARRACKS does not have** noise contours that extend off the installation's property. It **does not have** published noise abatement procedures for the main installation.

7. Threatened and Endangered Species/Critical Habitat (DoD Question #259-264)

- a. The presence of threatened and endangered species (TES) can result in restrictions on training, testing and operations. They serve to reduce buildable acres and maneuver space. The data in this section reflects listed TES as well as candidate species, designated critical habitat as well as proposed habitat, and restrictions from Biological Opinions. The legally binding conditions in Biological Opinions are designed to protect TES, and critical habitat. The data call seeks to identify the presence of the resource, TES, candidate or critical habitat, even if they don't result in restrictions, as well places where restrictions do exist.
- b. **CARLISLE BARRACKS** reported that federally-listed TES **are not present**, candidate species **are not present**, critical habitat **is not present**, and the installation **does not have** a Biological **Opinion**.

8. Waste Management (DoD Question # 265-272):

- a. This resource area identifies whether the installation has existing waste treatment and/or disposal capabilities, whether there is additional capacity, and in some case whether the waste facility can accept off-site waste. This area includes Resource Conservation and Recovery Act (RCRA) Treatment, Storage and Disposal facilities, solid waste disposal facilities, RCRA Subpart X (open/burning/open detonation) and operations.
- b. **CARLISLE BARRACKS does not have** a permitted RCRA Treatment Storage and Disposal Facility (TSDF) . **CARLISLE BARRACKS does not have** an interim or final RCRA Part X facility . **CARLISLE BARRACKS does not have an on-base solid waste disposal facility** .

9. Water Resources (DoD Question # 258, 274-299):

- a. This resource area asks about the condition of ground and surface water, and the legal status of water rights. Water is essential for installation operations and plays a vital role in the proper functioning of the surrounding ecosystems. Contamination of ground or surface waters can result in restrictions on training and operations and require funding to study and remediate. Federal clean water laws require states to identify impaired waters and to restrict the discharge of certain pollutants into those waters. Federal safe drinking water laws can require alternative sources of water and restrict activities above groundwater supplies particularly sole source aquifers. Water resources are also affected by the McCarran Amendment (1952), where Congress returned substantial power to the states with respect to the

management of water. The amendment requires that the Federal government waive its sovereign immunity in cases involving the general adjudication of water rights. On the other hand existence of Federal Reserve Water Rights can provide more ability to the government to use water on federal lands.

- b. **CARLISLE BARRACKS does not discharge** to an impaired waterway. Groundwater contamination **is not** reported. Surface water contamination **is not** reported. **The installation reported restrictions or controls that limited the production or distribution of potable water.**

(The following water quantity data is from DoD Question # 282, 291, 297, 822, 825, 826):

CARLISLE BARRACKS has **2688** Acre-Feet of surplus water potentially available for expansion. On average, it uses **0.450000000000000001** MGD of potable and non-potable water, with the capacity to produce **0.87** MGD. It processed on average **0.239999999999999999** MGD of domestic wastewater in the peak month (past 3 years), with the capacity to process **6** MGD. It processed on average **0** MGD of industrial wastewater in the peak month (past 3 years), with the capacity to process **(No Capacity Reported)** MGD.

10. Wetlands (DoD Question # 251, 257):

- a. The existence of jurisdictional wetlands poses restraints on the use of land for training, testing or operations. In the data call the installations were asked to report the presence of jurisdictional wetlands and compare the percent of restricted acres to the total acres. The presence of jurisdictional wetlands may reduce the ability of an installation to assume new or different missions, even if they do not presently pose restrictions, by limiting the availability of land.
- b. **CARLISLE BARRACKS** reported **1.3%** wetland restricted acres on the main installation, and **no** wetland restricted acres on ranges.

INSTALLATION ENVIRONMENTAL PROFILE
FORT LEAVENWORTH

1. Air Quality (DoD Question #210-225):

- a. The Clean Air Act (CAA) establishes health-based standards for air quality and all areas of the country are monitored to determine if they meet the standards. A major limiting factor is whether the installation is in an area designated nonattainment or maintenance (air quality is not meeting the standard) and is therefore subject to more stringent requirements, including the CAA General Conformity Rule. Conformity requires that any new emissions from military sources brought into the area must be offset by credits or accounted for in the State Implementation Plan (SIP) emissions budget. The criteria pollutants of concern include: CO, O₃ (1 hour & 8 Hour), and PM (PM₁₀, and PM_{2.5}). Installations in attainment areas are not restricted, while activities for installations in non-attainment areas may be restricted. Non-attainment areas are classified as to the degree of non-attainment: Marginal, Moderate, Serious, and in the case of O₃, Severe and Extreme. SIP Growth Allowances and Emission Reduction Credits are tools that can be used to accommodate increased emissions in a manner that conforms to a state's SIP. All areas of the country require operating permits if emissions from stationary sources exceed certain threshold amounts. Major sources already exceed the amount and are subject to permit requirements. Synthetic minor means the base has accepted legal limits to its emissions to stay under the major source threshold. Natural or true minor means the actual and potential emissions are below the threshold.
- b. **FORT LEAVENWORTH is in Nonattainment for CO. It holds a CAA Synthetic Minor Operating Permit. No emission credit program available. No SIP growth allowance has been allocated for this installation.**

2. Cultural/Archeological/Tribal Resources (DoD Question #229-237):

- a. Many installations have historical, archeological, cultural and Tribal sites of interest. These sites and access to them often must be maintained, or consultation is typically required before changes can be made. The sites and any buffers surrounding them may reduce the quantity or quality of land or airspace available for training and maneuvers or even construction of new facilities. The presence of such sites needs to be recognized, but the fact that restrictions actually occur is the overriding factor the data call is trying to identify. A programmatic agreement with the State Historic Preservation Office (SHPO) facilitates management of these sites.
- b. **Historic property has been identified on FORT LEAVENWORTH. There is a programmatic agreement for historic property in place with the SHPO. It has sites with high archeological potential identified, which do not restrict construction and do not restrict operations. Formal consultation with Native Tribes has occurred within the last two years.**

3. Dredging (DoD Question # 226-228):

- a. Dredging allows for free navigation of vessels through ports, channels, and rivers. Identification of sites with remaining capacity for the proper disposal of dredge spoil is the primary focus of the profile. However, the presence of unexploded ordnance or any other impediment that restricts the ability to dredge is also a consideration.

- b. FORT LEAVENWORTH has no impediments to dredging.

4. Land Use Constraints/Sensitive Resource Areas (DoD Question #198-201, 238, 240-247, 254-256, 273):

- a. Land use can be encroached from both internal and external pressures. This resource area combines several different types of possible constraints. It captures the variety of constraints not otherwise covered by other areas that could restrict operations or development. The areas include electromagnetic radiation or emissions, environmental restoration sites (on and off installation), military munitions response areas, explosive safety quantity distance arcs, treaties, underground storage tanks, sensitive resource areas, as well as policies, rules, regulations, and activities of other federal, state, tribal and local agencies. This area also captures other constraining factors from animals and wildlife that are not endangered but cause operational restrictions. This resource area specifically includes information on known environmental restoration costs through FY03 and the projected cost-to-complete the restoration.
- b. FORT LEAVENWORTH reports that 300 unconstrained acres are available for development out of 5637 total acres. FORT LEAVENWORTH has spent \$17M thru FY03 for environmental restoration, and has estimated the remaining Cost to Complete at \$12M. FORT LEAVENWORTH has Explosive Safety Quantity Distance Arcs, some of which require safety waivers, and none with the potential for expansion.

5. Marine Mammal/Marine Resources/Marine Sanctuaries (DoD Question #248-250, 252-253):

- a. This area captures the extent of any restrictions on near shore or open water testing, training or operations as a result of laws protecting Marine Mammals, Essential Fish Habitat, and other related marine resources.
- b. FORT LEAVENWORTH is not impacted by laws and regulations pertaining to Marine Mammal Protection Act, Essential Fish Habitats & Fisheries and Marine Sanctuaries, which may adversely restrict navigation and operations.

6. Noise (DoD Question # 202-209, 239):

- a. Military operations, particularly aircraft operations and weapons firing, may generate noise that can impact property outside of the installation. Installations with significant noise will typically generate maps that predict noise levels. These maps are then used to identify whether the noise levels are compatible with land uses in these noise-impacted areas. Installations will often publish noise abatement procedures to mitigate these noise impacts.
- b. FORT LEAVENWORTH does not have noise contours that extend off the installation's property. It does not have published noise abatement procedures for the main installation. It does not have published noise abatement procedures

for the training and/or RDT&E range. It does not have published noise abatement procedures for the auxiliary airfield.

7. Threatened and Endangered Species/Critical Habitat (DoD Question #259-264)

- a. The presence of threatened and endangered species (TES) can result in restrictions on training, testing and operations. They serve to reduce buildable acres and maneuver space. The data in this section reflects listed TES as well as candidate species, designated critical habitat as well as proposed habitat, and restrictions from Biological Opinions. The legally binding conditions in Biological Opinions are designed to protect TES, and critical habitat. The data call seeks to identify the presence of the resource, TES, candidate or critical habitat, even if they don't result in restrictions, as well places where restrictions do exist.
- b. FORT LEAVENWORTH reported that federally-listed TES are present, candidate species are not present, critical habitat is not present, and the installation does not have a Biological Opinion.

8. Waste Management (DoD Question # 265-272):

- a. This resource area identifies whether the installation has existing waste treatment and/or disposal capabilities, whether there is additional capacity, and in some case whether the waste facility can accept off-site waste. This area includes Resource Conservation and Recovery Act (RCRA) Treatment, Storage and Disposal facilities, solid waste disposal facilities, RCRA Subpart X (open/burning/open detonation) and operations.
- b. FORT LEAVENWORTH does not have a permitted RCRA Treatment Storage and Disposal Facility (TSDF) . FORT LEAVENWORTH does not have an interim or final RCRA Part X facility . FORT LEAVENWORTH has an on-base solid waste disposal facility that is 20% filled.

9. Water Resources (DoD Question # 258, 274-299):

- a. This resource area asks about the condition of ground and surface water, and the legal status of water rights. Water is essential for installation operations and plays a vital role in the proper functioning of the surrounding ecosystems. Contamination of ground or surface waters can result in restrictions on training and operations and require funding to study and remediate. Federal clean water laws require states to identify impaired waters and to restrict the discharge of certain pollutants into those waters. Federal safe drinking water laws can require alternative sources of water and restrict activities above groundwater supplies particularly sole source aquifers. Water

resources are also affected by the McCarran Amendment (1952), where Congress returned substantial power to the states with respect to the management of water. The amendment requires that the Federal government waive its sovereign immunity in cases involving the general adjudication of water rights. On the other hand existence of Federal Reserve Water Rights can provide more ability to the government to use water on federal lands.

- b. **FORT LEAVENWORTH does not discharge** to an impaired waterway. Groundwater contamination **is** reported. Surface water contamination **is not** reported. **The state requires permits for the withdrawal of groundwater. (The following water quantity data is from DoD Question # 282, 291, 297, 822, 825, 826):**
FORT LEAVENWORTH has **5437.5** Acre-Feet of surplus water potentially available for expansion. On average, it uses **1.5529999999999999** MGD of potable and non-potable water, with the capacity to produce **5.5** MGD. It processed on average **1.2** MGD of domestic wastewater in the peak month (past 3 years), with the capacity to process **6.8799999999999999** MGD. It processed on average **0** MGD of industrial wastewater in the peak month (past 3 years), with the capacity to process **(No Capacity Reported)** MGD.

10. Wetlands (DoD Question # 251, 257):

- a. The existence of jurisdictional wetlands poses restraints on the use of land for training, testing or operations. In the data call the installations were asked to report the presence of jurisdictional wetlands and compare the percent of restricted acres to the total acres. The presence of jurisdictional wetlands may reduce the ability of an installation to assume new or different missions, even if they do not presently pose restrictions, by limiting the availability of land.
- b. **FORT LEAVENWORTH** reported **no** wetland restricted acres on the main installation, and **no** wetland restricted acres on ranges.

Candidate E&T 0058



Candidate Recommendation: Realign Carlisle Barracks, Pennsylvania, by relocating the United States Army War College to Fort Leavenworth, Kansas, and consolidating it with the United States Army Command and General Staff College at Fort Leavenworth, Kansas, to create the Land Warfare University.

Justification

- ✓ Consolidates Officer Strategic and Operational Education.
- ✓ Promotes Training Effectiveness and Functional Efficiencies.

Military Value

- | | |
|---------------------|------|
| ✓ MCB Quantico | 62.8 |
| ✓ Ft. McNair | 61.1 |
| ✓ Ft. Leavenworth | 59.8 |
| ✓ Maxwell AFB | 54.1 |
| ✓ Carlisle Barracks | 53.8 |
| ✓ NAVSTA Newport | 52.7 |

Payback

- | | |
|-------------------------------|-----------|
| ✓ One Time Cost: | \$ 45.98M |
| ✓ Net Implementation Savings: | \$ 43.79M |
| ✓ Annual Recurring Savings | \$19.63M |
| ✓ Payback Period | 2 Years |
| ✓ NPV (savings) | \$220.39M |

Impacts

- ✓ Criterion 6: -1299 jobs (747 direct; 552 indirect); 0.34%
- ✓ Criterion 7: No issues
- ✓ Criterion 8: No impediments