FINDING OF NO SIGNIFICANT IMPACT

CONSTRUCTION OF 315TH AIRLIFT WING WAR READINESS MATERIAL WAREHOUSE CHARLESTON AIR FORCE BASE, SOUTH CAROLINA

Department of the Air Force, Air Mobility Command, Charleston Air Force Base (AFB), South Carolina.

BACKGROUND

Charleston AFB (the Base) has the requirement to construct a War Readiness Material (WRM) warehouse for the 315th Airlift Wing (315 AW), a tenant unit at the Base. Currently, WRM equipment is being stored in multiple facilities at the Base, thereby impacting the facilities because they were not designed to store the type or volume of equipment that the 315 AW possesses. The new WRM warehouse would provide space for storage, receiving, shipping, inspection, and war readiness storage of supplies and equipment necessary to support 315 AW training and real-world operations.

PROPOSED ACTION

An 8,000 square foot pre-engineered structure with climate controlled interior office and bathroom space, a standing seam sloped metal roof, and exterior finishes that complies with the Base Architectural Compatibility Plan will be constructed. The warehouse will have fire detection/alarm/suppression systems, communications support for voice and data systems, and material handling equipment. Utilities (*i.e.*, water, electricity, and natural gas distribution as well as wastewater collection) will be installed as needed and approximately 2,700 square feet of asphalt pavement for vehicle parking and access to the facility, along with concrete curbs and gutters, will be constructed. It is estimated that activities associated with the Proposed Action will begin in November of 2004 and will be completed in about nine months. There will be no change in the number of military active duty or reserve, government civilian, or contractor personnel at Charleston AFB

NO ACTION ALTERNATIVE

The Air Force Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] 989.8(d)) states: "...except in those rare instances where excused by law, the Air Force must always consider and assess the environmental impacts of the "no action" alternative. No construction activities at facilities needing repair, renovation, or replacement will occur. Personnel authorizations will remain at current levels.

SUMMARY OF FINDINGS

Pursuant to National Environmental Policy Act (NEPA) guidance, 32 CFR 989, and other applicable regulations, the Air Force completed an environmental assessment (EA) of the potential environmental consequences of multiple operations and maintenance and construction projects. The EA, which supports this Finding of No Significant Impact, evaluated the Proposed Action and No Action Alternative.

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
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13. SUPPLEMENTARY NOTES

14. ABSTRACT

Charleston AFB (the Base) has the requirement to construct a War Readiness Material (WRM) warehouse for the 315th Airlift Wing (315 A W), a tenant unit at the Base. Currently, WRM equipment is being stored in multiple facilities at the Base, thereby impacting the facilities because they were not designed to store the type or volume of equipment that the 315 A W possesses. The new WRM warehouse would provide space for storage, receiving shipping, inspection, and war readiness storage of supplies and equipment necessary to support 315 AW training and real-world operations. Under the No Action Alternative, the Base would continue to store 315 A W WRM in the facilities currently used for storage. Resources considered in the impact analysis were: air quality; noise; solid waste; hazardous materials and wastes; and envirorunental justice. No significant impacts would result from implementation of the Proposed Action or the No Action Alternative.

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**Same as Report (SAR)**	**88**	

EVALUATION OF THE PROPOSED ACTION

Air Quality. Emissions from construction activities will be temporary, lasting approximate nine months during the construction period. The greatest increase for any of the criteria air pollutants 0.77 tons per year for nitrogen oxide (NO_x), equating to 0.0011 percent of the NO_x emissions within t Trident Environmental Quality Control region. A Conformity Determination is not required.

Noise. Construction noise will be temporary, will occur only during daytime, and will cea when the project is completed.

Solid Waste. About 17 tons of construction debris will be generated by the project. Howev the exact amount that would be disposed in a landfill is unknown because the contractor will recyc debris to the maximum extent practicable.

Hazardous Materials and Wastes. Construction contractors will use and store hazardo materials in accordance with federal, state, and local regulations. It is anticipated the quantity hazardous wastes generated during construction would be negligible. The construction contractor w maintain records of all waste determinations in accordance with federal, state, and local regulatio Hazardous materials use, as well as hazardous wastes generation, from activities at the 315 AW WR warehouse will be managed or disposed of using the existing hazardous materials manageme procedures.

EVALUATION OF THE NO ACTION ALTERNATIVE

No significant impacts occur from the baseline activities.

ENVIRONMENTAL JUSTICE

Based on analysis conducted for this EA, it is determined that activities associated with t Proposed Action and No Action Alternative will not impose adverse environmental effects on adjace populations. Therefore, no disproportionately high and adverse effects will occur to minority and lo income populations.

DECISION

Based on my review of the facts and analyses contained in this EA, I conclude th implementation of the Proposed Action will not have a significant impact, either by itself or wh considering cumulative impacts. Accordingly, requirements of NEPA, regulations promulgated by t Council on Environmental Quality, and 32 CFR 989 are fulfilled and an environmental impact stateme is not required.

8 Dec 03

KARL B. YOUNG, Colonel, USAF
Vice Commander, 437th Airlift Wing
Chair, Environmental Protection Committee
Charleston AFB, SC

Date

PRIVACY ADVISORY NOTICE

Your comments on this environmental assessment (EA) are requested. Letters or other written or oral comments provided may be published in the final EA. Any personal information provided will be used only to identify your intention to make a statement during the public comment portion of any public meetings or hearings, or to fulfill requests for copies of the final EA or associated documents. Private addresses will be compiled to develop a mailing list for those requesting copies of the final EA. However, only names of the individuals making comments and specific comments will be disclosed. Personal home addresses and phone numbers will not be published in the final EA.

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COVER SHEET

ENVIRONMENTAL ASSESSMENT

CONSTRUCTION OF 315TH AIRLIFT WING WAR READINESS MATERIAL WAREHOUSE CHARLESTON AFB, SOUTH CAROLINA

Responsible Agency: Department of the Air Force, Air Mobility Command, Charleston Air Force Base (AFB), South Carolina.

Proposed Action: Construct 315th Airlift Wing War Readiness Material Warehouse at Charleston AFB.

Written comments and inquiries regarding this document should be directed to: Harold Deese, Environmental Flight, 437 CES/CEV, 100 West Stewart Ave., Charleston AFB, SC, 29404-4827, (843) 963-2701, email: harold.deese@charleston.af.mil.

Report Designation: Environmental Assessment

Abstract: Charleston AFB (the Base) has the requirement to construct a War Readiness Material (WRM) warehouse for the 315th Airlift Wing (315 AW), a tenant unit at the Base. Currently, WRM equipment is being stored in multiple facilities at the Base, thereby impacting the facilities because they were not designed to store the type or volume of equipment that the 315 AW possesses. The new WRM warehouse would provide space for storage, receiving, shipping, inspection, and war readiness storage of supplies and equipment necessary to support 315 AW training and real-world operations. Under the No Action Alternative, the Base would continue to store 315 AW WRM in the facilities currently used for storage. Resources considered in the impact analysis were: air quality; noise; solid waste; hazardous materials and wastes; and environmental justice. No significant impacts would result from implementation of the Proposed Action or the No Action Alternative.

APPENDICES

LIST OF FIGURES

LIST OF TABLES

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ACRONYMS AND ABBREVIATIONS

315 AW	315th Airlift Wing
437 AW	437th Airlift Wing
µg/m3	Micrograms per cubic meter
AFB	Air Force Base
AFCEE	Air Force Center for Environmental Excellence
AFI	Air Force Instruction
AICUZ	Air installation compatible use zone
BAQ	Bureau of Air Quality
CAA	Clean Air Act
C&D	Construction and demolition
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	Carbon monoxide
CO_2	Carbon dioxide
CY	Calendar year
dB	Decibel
dBA	A-weighted decibel
DNL	Day –Night average sound Level
EA	Environmental assessment
EIAP	Environmental impact analysis process
EIS	Environmental impact statement
EO	Executive order
EQC	Environmental quality control
ERP	Environmental restoration program
FICON	Federal Interagency on Noise
lb	pound(s)
N_2O	Nitrous oxide
NAAQS	National ambient air quality standards
NAS	National Academy of Science
NEPA	National Environmental Policy Act
NLR	Noise level reduction
NO	Nitric oxide
NO_2	Nitrogen dioxide
NO_x	Nitrogen oxides
O_3	Ozone
OCRM	Ocean and Coastal Resource Management
Pb	Lead
PM_{10}	Particulate matter
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SO_2	Sulfur dioxide
SO_x	Sulfur oxides
the Base	Charleston AFB
tpy	tons per year
TSP	Total suspended particulates
USAF	United States Air Force
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compound
WRM	War readiness material

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CHAPTER 1
PURPOSE OF AND NEED FOR THE PROPOSED ACTION

This chapter has six sections: Introduction; Need for the Action; Objective of the Action; Scope of the Environmental Review; Applicable Regulatory Requirements; and Organization of the Document.

1.1 INTRODUCTION

The 437th Airlift Wing (437 AW) is the host unit at Charleston Air Force Base (AFB) (the Base), South Carolina and reports to the Air Mobility Command headquartered at Scott AFB, Illinois. The mission of the 437 AW is to provide rapid mobility for America's armed forces to any problem area in the world through airlift of troops and equipment. During wartime, the 437 AW is responsible for deployment and resupply of major combat units of the United States. The 437 AW also provides administrative, logistical, and medical support to 437AW units and tenant units. One of the tenants is the 315th Airlift Wing (315 AW), a Reserve Associate unit of the Air Force Reserve Command that augments the 437 AW in its airlift mission. On a day-to-day basis, personnel from the 315 AW join active duty counterparts from the 437 AW to complete airlift missions, maintain aircraft, and accomplish base support activities.

Figure 1-1 shows the location of Charleston AFB, which is located 10 miles northwest of the City of Charleston, Charleston County, South Carolina near the center of the City of North Charleston. It is estimated that activities associated with the Proposed Action would begin in November of 2004.

1.2 NEED FOR THE ACTION

At the end of fiscal year 2002 (*i.e.*, August-September of calendar year 2002), the 315 AW received significant quantities of War Readiness Material (WRM)/mobility equipment potentially in preparation for response to real-world events. Adequate storage space is not available to accommodate this unexpected receipt of equipment. The items are currently being stored in multiple buildings on the base in whatever space is available. Storage at multiple locations prevents the mobility equipment from being readily available at a centralized location. Storing the 315 AW WRM in buildings not designed for the type or amount of equipment interferes with the daily activities at the facilities in which the mobility equipment is being stored. Thus, the 315 AW has a need for a dedicated facility in which the wing's mobility equipment can be stored.

1.3 OBJECTIVE OF THE ACTION

The objective of the action is to provide an adequately sized, properly configured, and suitably located facility that satisfies the 315 AW WRM/mobility storage requirements. The facility would provide space for storage, receiving, shipping, inspection, and war readiness

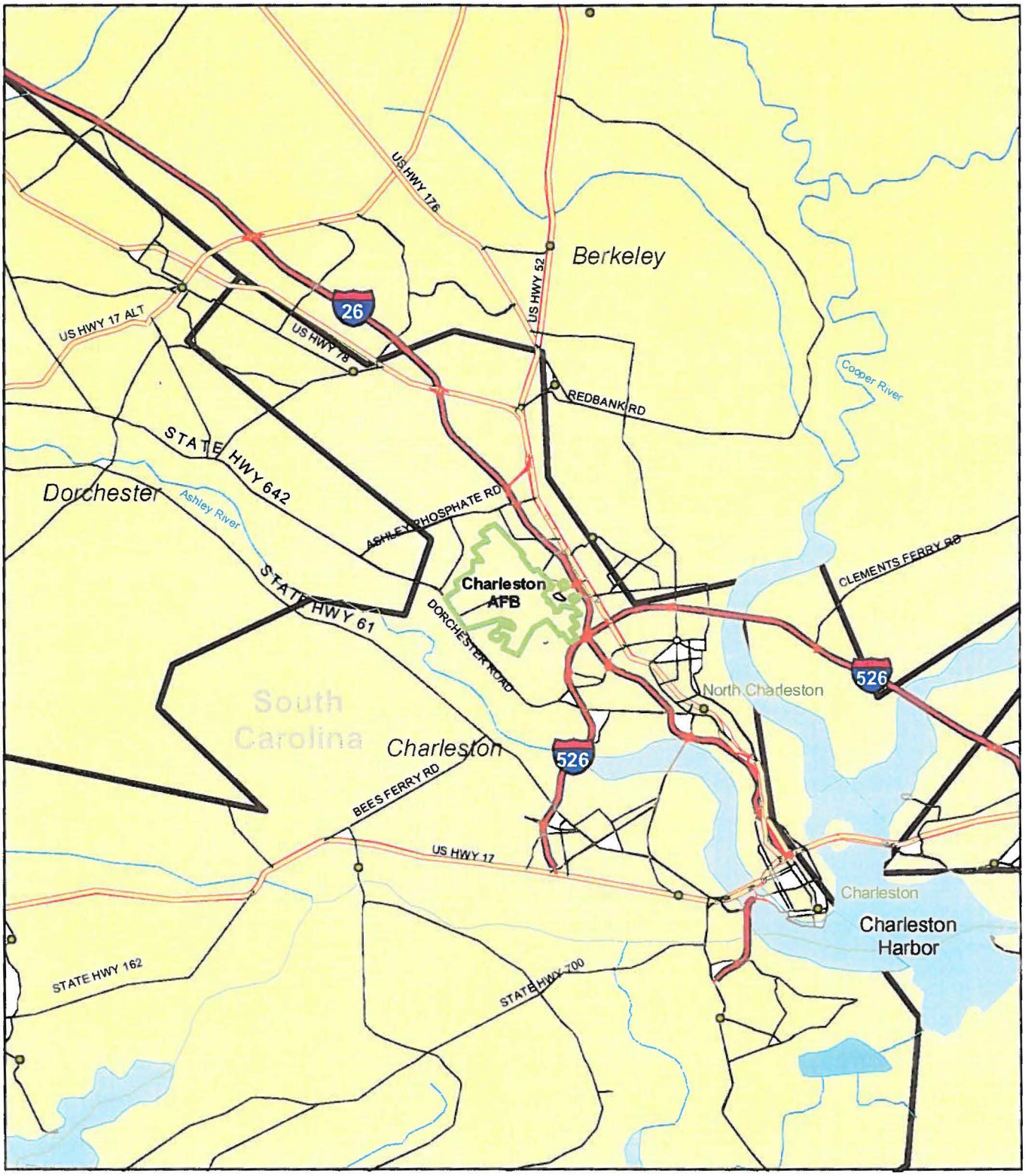
storage of supplies and equipment necessary to support 315 AW training and real-world operations.

1.4 SCOPE OF THE ENVIRONMENTAL REVIEW

The National Environmental Policy Act (NEPA) of 1969, as amended, requires federal agencies to consider environmental consequences in the decision-making process. The President's Council on Environmental Quality (CEQ) issued regulations to implement NEPA that include provisions for both the content and procedural aspects of the required environmental analysis. The Air Force Environmental Impact Analysis Process (EIAP) is accomplished through adherence to the procedures set forth in CEQ regulations (40 Code of Federal Regulations [CFR] Sections 1500-1508) and 32 CFR 989 (*Air Force Environmental Impact Analysis Process*), 15 Jul 99, and amended 28 Mar 01. These federal regulations establish both the administrative process and substantive scope of the environmental impact evaluation designed to ensure that deciding authorities have a proper understanding of the potential environmental consequences of a contemplated course of action. The CEQ regulations require that an environmental assessment (EA):

- Briefly provide evidence and analysis to determine whether the Proposed Action might have significant effects that would require preparation of an environmental impact statement (EIS). If analysis determines that the environmental effects would not be significant, a finding of no significant impact will be prepared;
- Facilitate the preparation of an EIS, when required; or
- Aid an agency's compliance with NEPA when no environmental impact statement is necessary.

This EA assesses the construction and operation of the proposed 315 AW WRM facility at Charleston AFB, as well as the No Action Alternative. This document identifies, describes, and evaluates the potential environmental impacts that may result from implementation of the Proposed Action as well as possible cumulative impacts from other reasonably foreseeable actions planned for the Base. This EA also identifies required environmental permits relevant to the Proposed Action. As appropriate, the affected environment and environmental consequences of the Proposed Action and No Action Alternative may be described in terms of site-specific descriptions or regional overview. Finally, this EA identifies mitigation measures to prevent or minimize environmental impacts, if required.



Legend

N

Miles
0 1 2 4

Base Boundary
Counties

Major Roads
Limited Access
Highways
Secondary Roads

Figure 1-1
Location of Charleston Air Force Base

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The following biophysical resources are assessed in the EA: air quality; noise; solid waste; hazardous materials and wastes; and environmental justice. As discussed in the following paragraphs, some resources were considered during the initial analysis for the project. However, for the reasons stated below, the resources have been eliminated from detailed consideration in this EA.

The project associated with the Proposed Action would be located in a portion of the Base that has been disturbed and altered by previous activities. For these reasons, no geologic, physiographic, or soils impacts would be anticipated from the proposed activities, and earth resources are not assessed in this EA.

There are no surface water features on the Proposed Action construction site. The water table below the proposed warehouse site is approximately 5-6 feet below ground surface, and construction activity is estimated to occur at 2 feet below the surface. The shortest distance from the 100-year floodplain to the project site is over 11,000 feet. Standard erosion control measures to would be implemented during facility construction to minimize soil disturbance, erosion, sedimentation, and storm water runoff at the work site. Measures to prevent discharge of contaminants into surface and ground waters would be followed during construction. For these reasons, no surface water, ground water, or floodplain impacts would be anticipated and the resources are not assessed in this EA.

The 315 AW WRM warehouse would be constructed on a site within the industrial land use category. The function of the warehouse would be compatible with this land use category as well as the activities in other nearby facilities. Thus, no land use impacts would be anticipated and the resource is not assessed in this EA.

The proposed activities would occur in an area within developed, maintained areas with a highly modified and disturbed landscape. There would be no disturbance of high quality and/or native vegetation outside the developed areas within the Base or outside the Base boundary. A 1993 field survey found no endangered, threatened, or special status species on the Base. One federal species-of-concern, the painted bunting, was observed at two locations at the southern edge of the Base at the south ends of runways 03/21 and 15/33 (USAF 2003). These locations are remote from the areas of proposed activity. There is a wetland to the west of the proposed construction site. Charleston AFB guidance requires that on-base construction activities remain 50 feet from a wetland. This distance, along with implementation of standard erosion and storm water control measures, would prevent discharge of contaminants and high volumes of water into the wetland, minimizing the potential for impacts to the wetland. Thus, no adverse effects would be anticipated to biological resources and the resource is not assessed in this EA.

There would be no change in the number of active duty and reserve military, government civilian, and contractor personnel at Charleston AFB as a result of the proposed activities. Therefore, there would be no long-term change from the current levels of water consumption or wastewater generation. It is likely water would be applied for dust suppression during construction activities. However, the amount of area that would be affected by construction would be small (*i.e.*, no more than one acre). Water applied to the construction areas would be needed for an approximate 2-month period to limit aerial dust. The amount of water that would

be applied would be minor when compared to current water system use and water application would not be long-term. It is anticipated that about 10,700 square feet of impervious surface would be added to the Base. This represents only 0.07 percent of the 162,609,480 square feet area of the Base. The storm water runoff from the additional impervious surface would be minimal when compared to the current storm water runoff at the Base. The electricity and natural gas usage for the proposed 8,000 square foot building would be minimal when compared to the existing consumption for the remainder of the Base. The short distance between the proposed site for the warehouse and the facilities where the equipment is temporarily stored would not change on-base traffic. Construction vehicles would use the route currently used for construction and other truck traffic, thereby reducing the potential with other base traffic. Additionally, any impacts from the construction vehicles would be temporary, lasting only as long as the project. For these reasons, infrastructure and utilities, which typically include potable water, wastewater, energy, storm water, solid waste, and transportation, is limited to solid waste.

No significant properties, structures, or sites eligible for the National Register of Historic Places or other formal recognition have been identified on Charleston AFB. A team from the US Army Corps of Engineers completed a review of the Base's records pertaining to the preservation of historical and archaeological sites during a visit in October 1993 and had no significant findings. The project site is located in an area of the Base that has been disturbed by previous activities. However, if any suspected archaeological sites are encountered during the project, the contractor must protect the site in place and report the discovery to the Charleston AFB Environmental Flight Office. No adverse effects to archaeological or historical resources would be anticipated as a result of the proposed activities at Charleston AFB. Therefore, archaeological and architectural resources are not addressed in this EA.

There would be no change to the number of active duty and reserve military, government civilian, and contractor personnel at Charleston AFB as a result of the proposed activities. Thus, no long-term changes would be anticipated to area population, housing requirements, school enrollment, or economic factors (*i.e.*, sales volume, income, or employment). It is not anticipated that construction workers would relocate to the Charleston, South Carolina area as a result of the proposed activities. Thus, there would be no short-term impacts to area population, housing requirements, or school enrollment. There could be a positive benefit to the economic factors from the proposed construction activities. However, these benefits would end when the project is completed. For these reasons, socioeconomic resources are not assessed in this EA.

The distance between the one proposed construction site and the nearest Environmental Restoration Program (ERP) site is about 500 feet. The site is an oil/water separator on the south side of Building 644. No ERP impacts would be anticipated due to the distance between the proposed construction site and the ERP site. No facilities demolition is anticipated under the proposed activities. Thus, asbestos containing materials and lead-based paint would not be encountered. The facility to be constructed would be constructed without either of these materials. It is possible that a transite pipe may be encountered underground at the site. Transite contains asbestos, which could become friable if crumbled, pulverized, or reduced to powder. The contractor would contact the Charleston AFB Environmental Flight should a

transite pipe be encountered during construction. Handling the pipe in accordance with the procedures established in the Charleston AFB transite pipe handling guidance would minimize the potential for significant impact. For these reasons, ERP, asbestos, and lead-based paint, which are typically included in hazardous materials and wastes, are not assessed in this EA.

Proposed construction of the 315 AW WRM warehouse would not result in any increase in safety or occupational health risks. Construction contractors would comply with Occupational Safety and Health Administration directives. For these reasons, occupational safety and health are not assessed in this EA.

"Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, was issued by the president on February 11, 1994. In the EO, the president instructed each federal agency to make "achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." The EO also required federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. Based on analysis conducted for this EA, it is determined that activities associated with the Proposed Action and No Action Alternative would not impose adverse environmental effects on adjacent populations. Therefore, no disproportionately high and adverse effects would occur to minority and low-income populations."

1.5 APPLICABLE REGULATORY REQUIREMENTS

Although the facility and associated parking would be about 0.33 acre, it is possible that more than one acre could be disturbed during project activities such as site preparation, construction of the structure, and installation of utilities. If more than one acre would be disturbed, the construction contractor would prepare and implement a Storm Water Pollution Prevention Plan to ensure compliance with Clean Water Act requirements to ensure water quality is not degraded.

1.6 ORGANIZATION OF THE DOCUMENT

This EA is organized into seven chapters.

Chapter 1 Contains an introduction; a statement of the need for the action; objective for the action; scope of the environmental review; presentation of the applicable regulatory requirements; and the organization of the EA.

Chapter 2 Has an introduction; lists the selection criteria for alternatives; describes the alternatives considered but eliminated from further consideration; details the proposed alternatives; presents information on past and reasonably foreseeable future actions; identifies the preferred alternative; and summarizes the environmental impacts for all alternatives.

Chapter 3 Contains a general description of the biophysical resources and baseline conditions that potentially could be affected by the Proposed Action or No Action Alternative.

Chapter 4 Discusses the environmental consequences.

Chapter 5 Lists preparers of this document.

Chapter 6 Lists the persons and agencies consulted in preparation of this EA.

Chapter 7 Lists the sources of the information used in preparation of this EA.

Appendix A Air Force Form 813

Appendix B Department of Defense Forms 1391

CHAPTER 2
DESCRIPTION OF THE ALTERNATIVES

This chapter has seven sections: introduction, selection criteria for the alternatives, alternatives considered but eliminated from further consideration, proposed alternatives, information on past and reasonably foreseeable future actions, the preferred alternative, and summary of the environmental impacts for all alternatives.

2.1 SELECTION CRITERIA FOR ALTERNATIVES

Charleston AFB must ensure it has the facilities and infrastructure to support its assigned mission. To meet this need, the Base manages an ongoing planning process that evaluates how well existing facilities and infrastructure meet mission requirements. This evaluation process also considers the long-term and assesses the capability of facilities and infrastructure to meet expected future requirements. When a facility no longer meets the mission of the function housed in the building, or it becomes apparent there will be a future insufficiency, multiple options are explored on how to best resolve the deficiency.

Potential solutions include building alteration, adding on to an existing structure, relocating the function to another facility, or constructing a new facility. Factors considered include issues such as: the anticipated number of assigned personnel; the economic efficiency of continued operation of a building or infrastructure element; the ability of the Base to accommodate potential mission changes; how well a certain building supports the function of the mission housed in the facility; the combined effectiveness of using multiple buildings for a single function such as civil engineering; and the realization that facilities require repair.

With this process as the background, Charleston AFB personnel have identified the need to construct a facility to ensure the Base continues to support its assigned mission. Once a facility is identified as not satisfying the mission of the function housed in a building, the base planning process is used to determine how best to resolve the deficiency. This process includes: the development of alternatives that consider issues such as the need for the facility; where the facility should be located to best accomplish the mission of the function; what is the required completion date to ensure there is no degradation of mission; and what is the most cost effective and efficient manner to correct the deficiency.

Specifically, Charleston AFB personnel developed the following criteria for use in developing and evaluating alternatives for a site for the 315 AW WRM warehouse:

- The site should be in the current warehouse district to consolidate all WRM activities in the same area.
- The site should be vacant and not require demolition of an existing structure.
- The site should be consistent with the General Plan.
- The required space could be as an addition to an existing warehouse.

2.2 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER CONSIDERATION

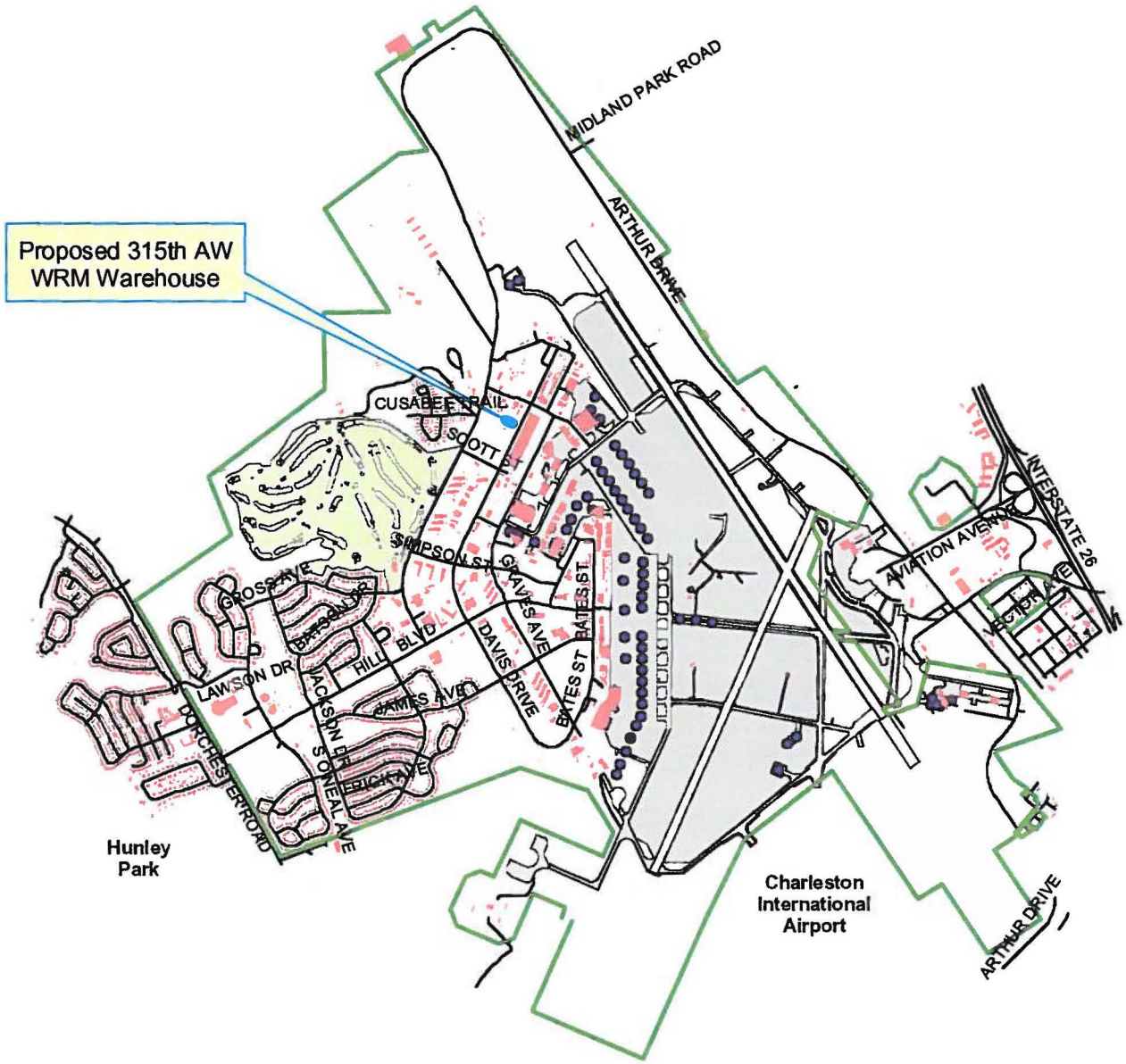
Two sites along Davis Drive (one on the west side and one on the east side) and north of Scott Street in the warehouse area are vacant. Another warehouse is planned for the site on the east side of Davis Drive. The areas around existing warehouses do not have adequate space to support the size of an addition to an existing warehouse needed for the 315 AW WRM facility. Thus, an addition to an existing warehouse was not an option. For these reasons, the only viable site for the 315 AW WRM warehouse is on the west side of Davis Drive and north of Scott Street. This site is assessed as the Proposed Action in this EA.

Charleston AFB would continue to store 315 AW WRM in the facilities currently used to store the equipment as the No Action Alternative. The Air Force EIAP (32 CFR 989.8(d)) states: "...except in those rare instances where excused by law, the Air Force must always consider and assess the environmental impacts of the "no action" alternative." The No Action Alternative relative to the action that will be assessed in the EA would not be excused by law. Therefore, the No Action Alternative is assessed in the EA.

2.3 DESCRIPTION OF THE PROPOSED ACTION

Under the Proposed Action, a warehouse would be constructed to provide storage for 315 AW WRM equipment. Figure 2-1 depicts the vacant property proposed as the location for the warehouse. There would be no change in the number of military active duty or reserve, government civilian, or contractor personnel at Charleston AFB as a result of the Proposed Action.

The 315 WRM warehouse would be an 8,000 square foot pre-engineered structure with climate controlled interior office and bathroom space, a standing seam sloped metal roof, and exterior finishes that would comply with the Base Architectural Compatibility Plan. The warehouse would have fire detection/alarm/suppression systems, communications support for voice and data systems, and material handling equipment. Utilities (*i.e.*, water, electricity, and natural gas distribution as well as wastewater collection) would be installed as needed and approximately 2,700 square feet of asphalt pavement for vehicle parking and access to the facility, along with concrete curbs and gutters, would be constructed. It is estimated that activities associated with the Proposed Action would begin in November of 2004 and would be completed in about nine months.



Project location is approximate and not to scale.

N

Feet

0 750 1,500 3,000

Legend

- Base Boundary
- Airfield
- Buildings
- Golf Course
- Parking

Figure 2-1
Location of Proposed
315th AW WRM Warehouse
Charleston
Air Force Base

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2.4 DESCRIPTION OF THE NO ACTION ALTERNATIVE

Under the No Action Alternative, the 315 WRM equipment would continue to be stored in the multiple facilities currently being used. No construction activities would occur. The number of active duty and reserve military, government civilian, and contractor personnel at Charleston AFB would remain at the existing levels.

2.5 DESCRIPTION OF PAST AND REASONABLY FORESEEABLE FUTURE ACTIONS

Complete environmental impact analysis of the Proposed Action and alternative actions must consider cumulative impacts due to other actions. A cumulative impact, as defined by the CEQ (40 CFR 1508.7), is the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of which agency (federal or non-federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." Charleston AFB staff identified two other reasonably foreseeable actions that would occur concurrently with the Proposed Action, as shown on Table 2-1. Additionally, the Charleston International Airport has one project. The locations of the projects are shown on Figure 2-2.

Table 2-1 Construction Project Information, Cumulative Condition, Charleston AFB

PROJECT	LOCATION NUMBER	SIZE (SQUARE FEET)	START DATE	DURATION
Repair airfield lighting system	RLV-1	3,600	2004	12 months
Charleston International Airport Parking Garage	CIA-1	622,095	January 2004	18 months
120-Person Dormitory	--	104,535	November 2004	18 months

Note: Location number corresponds to project location on Figure 2-2. Size depicts total surface area for the facility. Start date reflected as CY. The size for the dormitory includes an approximate 56,190 square foot, two-story structure and a 48,345 square foot parking lot.

Repair Airfield Lighting System. This project would construct a modern, adequately sized and securely located facility capable of housing state of the art airfield lighting systems and switching equipment. This facility would conform to all Air Force, Federal Aviation Administration, and regulatory agency requirement for joint use airfields.

120-Person Dormitory. This project would construct a two-story dormitory and accompanying vehicle parking. The structure would have a reinforced concrete foundation and floor slabs, insulated masonry walls, brick veneer, and metal roof.

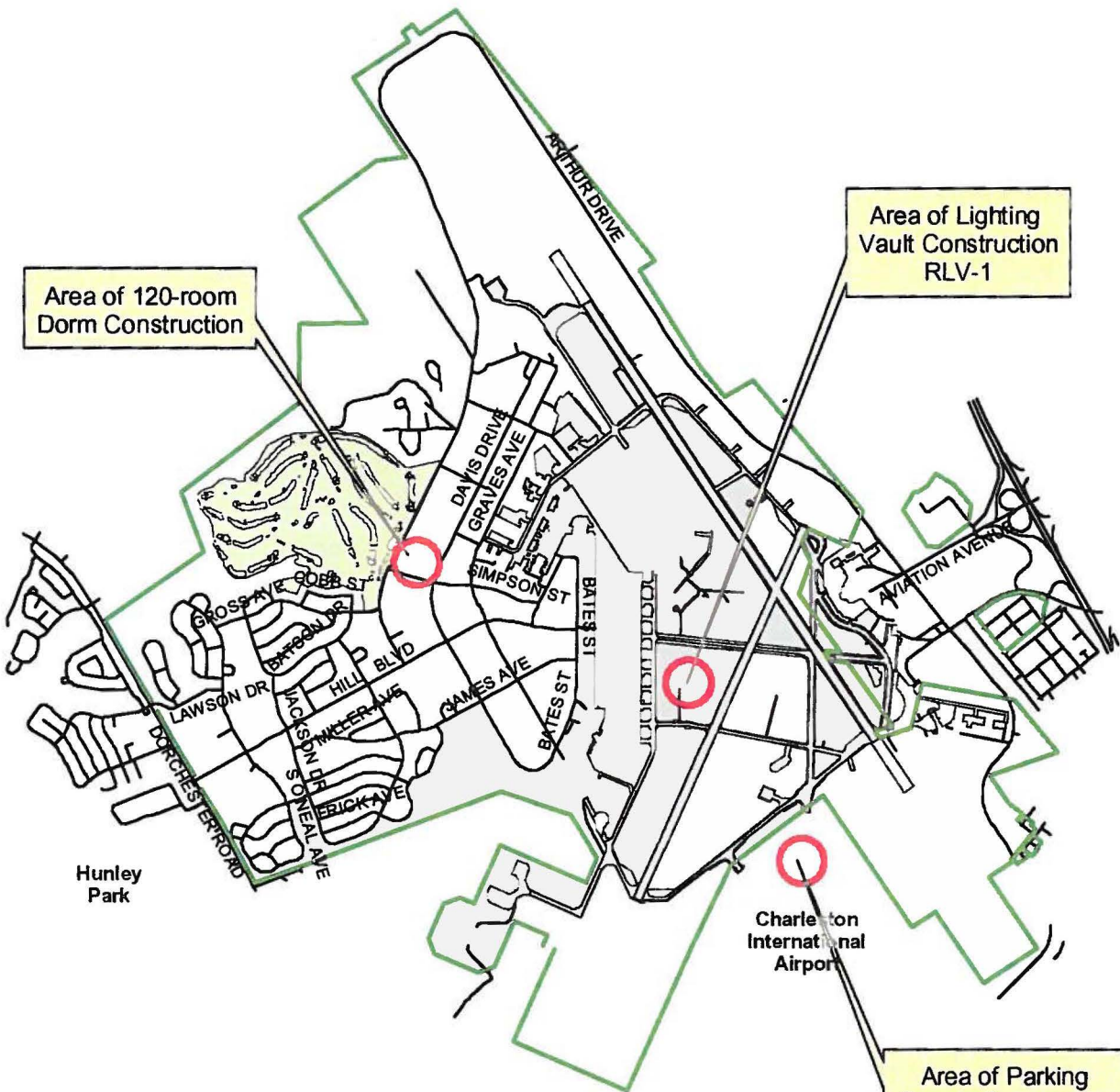
Charleston International Airport Parking Garage. The Charleston International Airport, which is located southeast of the Charleston AFB airfield and which uses the airfield, would construct a parking garage.

2.6 PREFERRED ALTERNATIVE

The Proposed Action is the preferred alternative.

2.7 SUMMARY OF THE ENVIRONMENTAL IMPACTS FOR ALL ALTERNATIVES

Table 2-2 summarizes the impacts of the Proposed Action and No Action Alternative.



Project locations are approximate and not to scale.

N

Feet
0 750 1,500 3,000

Legend

- Base Boundary
- Airfield
- Golf Course

Figure 2-2
Location of Other Actions
Charleston
Air Force Base

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Table 2-2 Summary of Impacts, Proposed Action and No Action Alternative

RESOURCE *(Applicable Sections)*	PROPOSED ACTION	NO ACTION ALTERNATIVE
Air Quality	There would be temporary increases in emissions as a result of construction of the Proposed Action. The greatest increase for any of the criteria air pollutants would be 0.77 tons per year (tpy) for nitrogen oxide (NO_x), which equates to 0.0011 percent of the NO_x emissions within the Trident Environmental Quality Control region. These emissions would be temporary conditions, lasting approximately nine months during the construction period. A Conformity Determination would not be required.	No significant impacts occur from the current activities.
Noise	Construction noise would be temporary, would occur only during daytime, and would cease when the project is completed. Noise levels during operation of the Proposed Action would be identical to current conditions.	No significant impacts occur from the current activities.
Solid Waste	About 17 tons of construction debris would be generated by the project. However, the exact amount that would be disposed in a landfill is unknown because the contractor would recycle material to the maximum extent practicable.	No significant impacts occur from the current activities.
Hazardous Materials and Wastes	Construction contractors would use and store hazardous materials in accordance with all federal, state, and local regulations. Any hazardous materials used in the 315 AW WRM warehouse would be managed using the existing hazardous materials management procedures. It is anticipated the quantity of hazardous wastes generated during construction would be negligible. The construction contractor would maintain records of all waste determinations in accordance with all federal, state, and local regulations. The potential for hazardous waste generation from warehouse activities would be negligible. Any hazardous waste generated by operations at the facility would be handled in accordance with federal, state, and local laws and regulations.	No significant impacts occur from the current activities.

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CHAPTER 3
DESCRIPTION OF THE AFFECTED ENVIRONMENT

This chapter describes the relevant environment at Charleston AFB, providing baseline information to allow evaluation of potential environmental impacts that could result from the Proposed Action or the No Action Alternative. Only relevant resource areas are described; resource areas that would not be impacted are not described in this chapter, nor evaluated in Chapter 4.

3.1 AIR QUALITY

3.1.1 Air Pollutants and Regulations

Air quality in any given region is measured by the concentration of various pollutants in the atmosphere, typically expressed in units of parts per million (ppm) or in units of micrograms per cubic meter ($\mu g/m^3$). Air quality is not only determined by the types and quantities of atmospheric pollutants, but also by surface topography, size of the air basin, and by prevailing meteorological conditions.

The Clean Air Act (CAA), as amended in 1977 and 1990, provides the basis for regulating air pollution to the atmosphere. Different provisions of the CAA apply depending on where the source is located, which pollutants are being emitted, and in what amounts. The CAA required the United States Environmental Protection Agency (USEPA) to establish ambient ceilings for certain criteria pollutants. These criteria pollutants are usually referred to as the pollutants for which the USEPA has established National Ambient Air Quality Standards (NAAQS). The ceilings were based on the latest scientific information regarding the effects a pollutant may have on public health or welfare. Subsequently, the USEPA promulgated regulations that set NAAQS. Two classes of standards were established: primary and secondary. Primary standards define levels of air quality necessary, with an adequate margin of safety, to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards define levels of air quality necessary to protect public welfare (*e.g.,* decreased visibility, damage to animals, crops, vegetation, wildlife, and buildings) from any known or anticipated adverse effects of a pollutant.

Air quality standards are currently in place for six "criteria" pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), sulfur oxides (SO_x) measured as sulfur dioxide (SO_2), lead (Pb), and particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (PM_{10}). There are many suspended particles in the atmosphere with aerodynamic diameters larger than 10 micrometers. The collective of all particle sizes is commonly referred to as total suspended particulates (TSP). TSP is defined as particulate matter as measured by the methods outlined in 40 CFR Part 50.. The NAAQS are the cornerstone of the CAA. Although not directly enforceable, they are the benchmark for the establishment of emission limitations by the states for the pollutants USEPA determines may endanger public health or welfare.

Ozone (ground-level ozone), which is a major component of "smog," is a secondary pollutant formed in the atmosphere by photochemical reactions involving previously emitted pollutants or precursors. Ozone precursors are mainly NO_x and volatile organic compounds (VOC). NO_x is the designation given to the group of all oxygenated nitrogen species, including nitric oxide (NO), NO_2, nitrous oxide (N_2O), and others. However, only NO, NO_2, and N_2O are found in appreciable quantities in the atmosphere. VOCs are organic compounds (containing at least carbon and hydrogen) that participate in photochemical reactions and include carbonaceous compounds except metallic carbonates, metallic carbides, ammonium carbonate, carbon dioxide (CO_2), and carbonic acid. Some VOCs are considered non-reactive under atmospheric conditions and include methane, ethane, and several other organic compounds.

As noted above, ozone is a secondary pollutant and is not directly emitted from common emissions sources. Therefore, to control ozone in the atmosphere, the effort is made to control NO_x and VOC emissions. For this reason, NO_x and VOCs emissions are calculated and reported in emission inventories.

The CAA does not make the NAAQS directly enforceable. However, the Act does require each state to promulgate a State Implementation Plan (SIP) that provides for "implementation, maintenance, and enforcement" of the NAAQS in each Air Quality Control Region in the state. The CAA also allows states to adopt air quality standards more stringent than the federal standards. The ambient air quality standards for South Carolina are contained in the South Carolina Department of Health and Environmental Control (SCDHEC) Regulation 61 - 62, Air Pollution Control Regulations and Standards, Standard No. 2 Ambient Air Quality Standards (SCDHEC 2003).

Based on the requirements outlined in EPA's general conformity rule published in 58 Federal Register 63214 (November 30, 1993) and codified at 40 CFR part 93, subpart B (for federal agencies), a conformity analysis is required to analyze whether the applicable criteria air pollutant emissions associated with the project equal or exceed the threshold emission limits that trigger the need to conduct a formal conformity determination. The intent of the conformity rule is to encourage long range planning by evaluating the air quality impacts from federal actions before the projects are undertaken. This rule establishes an elaborate process for analyzing and determining whether a proposed project in a non-attainment area conforms to the SIP and federal standards.

3.1.2 Regional Air Quality

The fundamental method by which the USEPA tracks compliance with the NAAQS is the designation of a particular region as "attainment" or "non-attainment". Based on the NAAQS, each state is divided into three types of areas for each of the criteria pollutants. The areas are:

- Those areas that are in compliance with the NAAQS (attainment);
- Those areas that don't meet the ambient air quality standards (non-attainment); and

- Those areas where a determination of attainment/non-attainment cannot be made due to a lack of monitoring data (unclassifiable – treated as attainment until proven otherwise).

Generally, areas in violation of one or more of the NAAQS are designated non-attainment and must comply with stringent restrictions until all of the standards are met. In the case of O_3, CO, and PM_{10}, USEPA divides non-attainment areas into different categories, depending on the severity of the problem in each area. Each non-attainment category has a separate deadline for attainment and a different set of control requirements under the SIP.

Charleston AFB is located within USEPA Air Quality Control Region IV that has generally good air quality and is in attainment with NAAQS. The Base has a Title V Operating Permit from SCDHEC (Number 560-0019). The emergency generators used throughout the Base are exempt from permit requirements because they are operated 250 hours or less per year in addition to emergency operation (AFCEE/ECS 2003).

The Bureau of Air Quality (BAQ) of SCDHEC has regulatory authority for air pollution control in the state of South Carolina. Charleston, Dorchester, and Berkeley Counties comprise the Trident Environmental Quality Control (EQC) District of South Carolina. The BAQ indicated that the Trident District is currently in attainment of all state and federal air quality standards (Eller 2003). The national and South Carolina air quality standards are shown in Table 3-1.

3.1.3 Baseline Air Emission

An air emissions inventory is an estimate of total mass emissions of pollutants generated from a source or sources over a period of time, typically a year. Accurate air emissions inventories are needed for estimating the relationship between emissions sources and air quality. Quantities of air pollutants are generally measured in pounds (lbs) per year or tons per year (tpy). All emission sources may be categorized as either mobile or stationary emission sources. Stationary emission sources may include boilers, generators, fueling operations, industrial processes, and burning activities, among others. Mobile emission sources typically include vehicle operations.

Table 3-1 United States and South Carolina Ambient Air Quality Standards

CRITERIA POLLUTANT	AVERAGING TIME	PRIMARY NAAQS[A,C]	SECONDARY NAAQS[B,C]	SOUTH CAROLINA STANDARDS [C]
Carbon Monoxide	8-hour 1-hour	10 mg/m^3 40 mg/ m^3	No standard No standard	10 mg/ m^3 40 mg/ m^3
Lead	Quarterly	1.5 µg/ m^3	1.5 µg/ m^3	1.5 µg/ m^3
Nitrogen Oxides (measured as NO_2)	Annual	0.053 ppm (100 µg/ m^3)	0.053 ppm (100 µg/ m^3)	0.053 ppm (100 µg/ m^3)
Ozone [f]	8-hour [d] 1-hour [d]	0.08 ppm (157 µg/ m^3) 0.12 ppm (235 µg/ m^3)	0.08 ppm (157 µg/ m^3) 0.12 ppm (235 µg/ m^3)	0.12 ppm (235 µg/ m^3)
Particulate Matter (measured as PM_{10})	Annual [d] 24-hour [d]	50 µg/ m^3 150 µg/ m^3	50 µg/ m^3 150 µg/ m^3	50 µg/ m^3 150 µg/ m^3

CRITERIA POLLUTANT	AVERAGING TIME	PRIMARY NAAQS[A,C]	SECONDARY NAAQS[B,C]	SOUTH CAROLINA STANDARDS [C]
Particulate Matter (measured as $PM_{2.5}$) [e f]	Annual 24-hour	15 µg/ m^3 66 µg/ m^3	15 µg/ m^3 66 µg/ m^3	No standard
Total Suspended particulates	Annual Geometric Mean	No standard	No standard	75 µg/ m^3
Sulfur Oxides (measured as SO_2)	Annual 24-hour [e] 3-hour [e]	0.03 ppm (80 µg/ m^3) 0.14 ppm (365 µg/ m^3) No standard	No standard No standard 0.50 ppm (1,300 µg/ m^3)	0.03 ppm (80 µg/ m^3) 0.14 ppm (365 µg/ m^3) 0.50 ppm (1,300 µg/ m^3)

a National Primary Standards: The levels of air quality necessary to protect the public health with an adequate margin of safety. Each state must attain the primary standards no later than three years after the state implementation plan is approved by the USEPA.

b National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after the state implementation plan is approved by the USEPA.

c The NAAQS and South Carolina standards are based on standard temperature and pressure of 25 degrees Celsius and 760 millimeters of mercury.

d Attainment determinations will be made based on the criteria contained in 40 CFR 50, July 1, 1987.

e National and state standards, other than those based on an annual or quarterly arithmetic mean, are not to be exceeded more than once per year. .

f The ozone 8-hour standard and PM2.5 standards are included for information only. A 1999 federal court ruling blocked implementation of these standards, which the USEPA proposed in 1997. The USEPA has asked the U.S. Supreme Court to reconsider that decision.

Table 3-2 lists the calendar year (CY) 1999 air emissions inventory summary for the Trident EQC District and the 2003 estimated emissions generated by activities at Charleston AFB. Annual tonnages include emissions from permitted stationary, mobile, and grandfathered air emission sources.

Table 3-2 Baseline Air Emissions (tons per year)

CRITERIA AIR POLLUTANT	CO (TPY)	VOC (TPY)	NO_X (TPY)	SO_X (TPY)	PM_{10} (TPY)	$PM_{2.5}$ (TPY)
Trident EQC District CY 99 Totals:	247,389	46,010	70,038	83,330	25,007	9,360
Charleston AFB CY 2003 Estimates	6.0	48.0	9.1	0.25	0.7	NA

Note: VOC is not a criteria air pollutant. However, VOC is reported because, as an ozone precursor, it is a controlled pollutant. $PM_{2.5}$ included for information only.

Source: USEPA, 2003a

3.2 NOISE

3.2.1 Background Information

The characteristics of sound include parameters such as amplitude (loudness), frequency (pitch), and duration. Sound varies over an extremely large range of amplitudes. The decibel (dB), a logarithmic unit that accounts for the large variations in amplitude, is the accepted standard unit for describing levels of sound.

Different sounds have different frequency contents. Because the human ear is not equally sensitive to sound at all frequencies, a frequency-dependent adjustment, called A-weighting and expressed as dBA, has been devised to measure sound similar to the way the human hearing system responds. The adjustments in amplitude, established by the American National Standards Institute (ANSI 1983), are applied to the frequency content of the sound. Figure 3-1 depicts typical A-weighted sound pressure levels (dBA) for various sources. For example, 65 dBA is equivalent to normal speech at a distance of 3 feet.

Noise is defined as sound that is undesirable because it interferes with speech and hearing, is intense enough to damage hearing, or is otherwise annoying. Noise levels often change with time. To compare sound levels over different time periods, several descriptors have been developed that take into account this time-varying nature. These descriptors are used to assess and correlate the various effects of noise on humans.

The day-night average noise level (DNL) metric is a measure of the total community noise environment. DNL is the average A-weighted sound level over a 24-hour period, with a 10 dBA adjustment added to the nighttime levels (between 10:00 p.m. and 7:00 a.m.). This adjustment is an effort to account for increased human sensitivity to nighttime noise events. DNL was endorsed by the USEPA for use by federal agencies and has been adopted by the Department of Housing and Urban Development, Federal Aviation Administration, and Department of Defense. DNL is an accepted unit for quantifying annoyance to humans by general environmental noise, including aircraft noise. Federal Interagency Committee on Urban Noise-developed land use compatibility guidelines for noise (USDOT 1980). Compatible or incompatible land use is determined by comparing the predicted DNL level at a site with the recommended land uses.

Methods used to quantify the effects of noise, such as annoyance, speech interference, and health and hearing loss, have undergone extensive scientific development during the past several decades. The most reliable measures are noise-induced annoyance and hearing loss. The effects of noise exposure are summarized in the following paragraphs.

Annoyance. Noise annoyance is defined by the USEPA as any negative subjective reaction to noise by an individual or group. Table 3-3 presents the results of over a dozen studies of the relationship between noise and annoyance levels. This relationship has been suggested by the National Academy of Sciences (NAS 1977) and was reevaluated (Fidell *et al.* 1988) for use in describing people's reaction to semi-continuous (transportation) noise. These data are shown to provide a perspective on the level of annoyance that might be anticipated. For example, 15 to 25 percent of persons exposed on a long-term basis to DNL of 65 to 70 dBA would be expected to be highly annoyed by noise events.

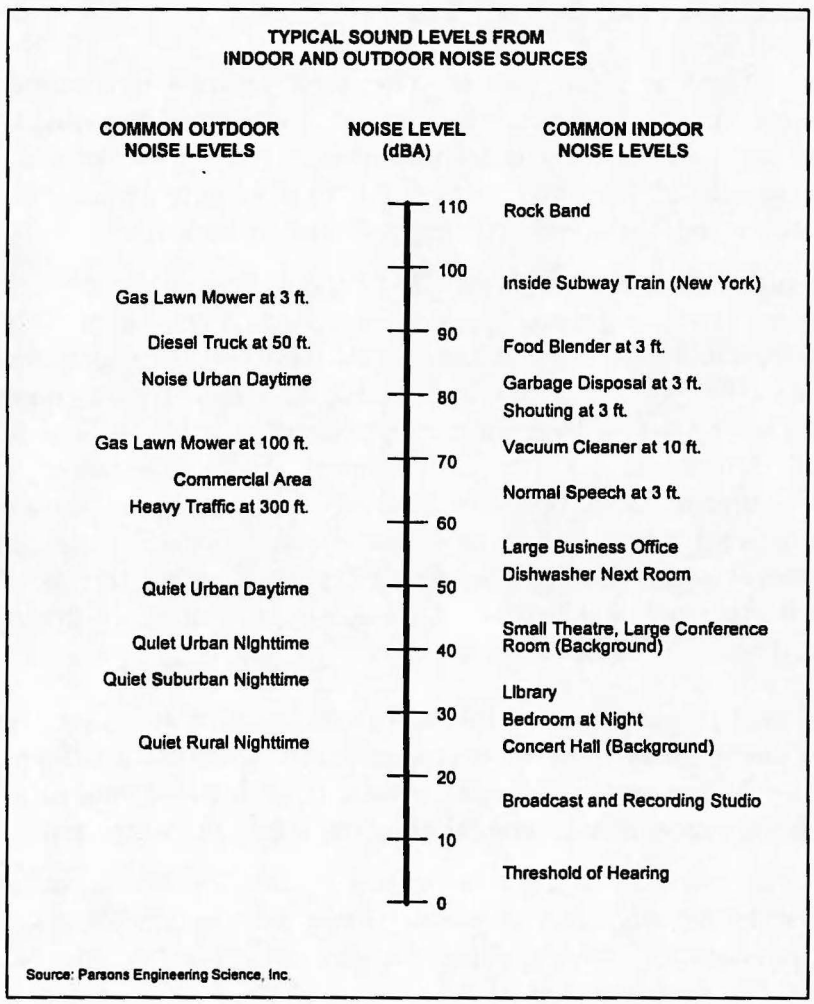
Table 3-3 Percentage of Persons Highly Annoyed by Noise Exposure

NOISE EXPOSURE ZONE (DNL DBA)	PERCENTAGE OF PERSONS HIGHLY ANNOYED
<65	<15
65-70	15-25
70-75	25-37
75-80	37-52
>80	61

Note: Noise impacts on individuals vary. The "low" numbers above indicate individuals with higher tolerance of noise while the "high" numbers indicate individuals with higher sensitivity to noise.

Source: Adapted from NAS 1977.

Figure 3-1 Typical A-Weighted Noise Levels



Speech Interference. One of the ways noise affects daily life is by prevention or impairment of speech communication. In a noisy environment, understanding speech is diminished when speech signals are masked by intruding noises. Reduced speech intelligibility also may have other effects. For example, if speech understanding is interrupted, performance may be reduced, annoyance may increase, and learning may be impaired. Elevated noise levels can interfere with speech, causing annoyance or communication difficulties. Based on a variety of studies, DNL 75 dBA indicates a good probability for frequent speech disruption. This level produces ratings of "barely acceptable" for intelligibility of spoken material. Increasing the level of noise to 80 dB reduces the intelligibility to zero, even if people speak in loud voices.

Hearing Loss. Hearing loss is measured in decibels and refers to a permanent auditory threshold shift of an individual's hearing. The USEPA (USEPA 1974) recommended a limiting daily equivalent energy value or equivalent sound level of 70 dBA to protect against hearing impairment over a period of 40 years. This daily energy average would translate into a DNL value of approximately 75 dBA or greater. Based on a USEPA study, hearing loss is not expected in people exposed to a DNL of 75 dBA or less (USEPA 1974). The potential for hearing loss involves direct exposure to DNL levels above 75 dBA on a regular, continuing, long-term basis. The Federal Interagency on Noise (FICON) states that hearing loss due to noise: 1) may begin to occur in people exposed to long-term noise at or above a DNL of 75 dBA; 2) will not likely occur in people exposed to noise between a DNL of 70 and 75 dBA; and 3) will not occur in people exposed to noise less than a DNL of 70 dBA (USDOT 1980).

An outdoor DNL of 75 dBA is considered the threshold above which the risk of hearing loss is evaluated. Following guidelines recommended by the Committee on Hearing, Bioacoustics, and Biomechanics, the average change in the threshold of hearing for people exposed to DNL equal to or greater than 75 dBA was evaluated. Results indicated that an average of 1 dBA hearing loss could be expected for people exposed to DNL equal to or greater than 75 dBA. For the most sensitive 10 percent of the exposed population, the maximum anticipated hearing loss would be 4 dBA. These hearing loss projections must be considered conservative as calculations are based on an average daily outdoor exposure of 16 hours (7:00 a.m. to 10:00 p.m.) over a 40-year period. It is doubtful any individual would spend this amount of time outdoors within the DNL equal to or greater than 75 dBA noise exposure area.

3.2.2 Existing Noise Levels

Aircraft operations, which include aircraft and aircraft maintenance operations, are the primary source of noise at Charleston AFB. During periods of no flying activity, noise results primarily from aircraft maintenance shop operations, ground traffic movement, occasional construction, and similar sources. This noise is almost entirely restricted to the Base itself and is comparable to sounds that occur in typical communities. It is during periods of aircraft ground or flight activity that the noise environment changes.

The draft 2003 AICUZ Study for Charleston AFB describes "Average Busy Day Noise Contours for Future Aircraft Operations" (see Figure 3-2). The proposed site for the 315 AW WRM is located in the DNL 65-70 dBA noise exposure area.

FICON developed land use compatibility guidelines for noise in terms of DNL (USDOT 1980). DNL is the metric used by the Air Force in determining noise impacts of military airfield operations for land use planning. Air Force land use compatibility guidelines (relative to DNL values) are documented in the Air Installation Compatible Use Zone (AICUZ) Program Manager's Handbook (USAF 1999). Four noise zones are used in AICUZ studies to identify noise impacts from aircraft operations. These noise zones range from DNL of 65 dBA to DNL of 80 dBA. For example, it is recommended that no residential uses, such as homes, multifamily dwellings, dormitories, hotels, and mobile home parks be located where the noise is expected to exceed a DNL of 65 dBA. If noise sensitive structures are located in areas within a DNL range of 65 to 75 dBA, the structures should be designed to achieve a 25 to 30 dBA interior noise reduction. For outdoor activities, the USEPA recommends DNL of 55 dBA as the sound level below which there is no reason to suspect that the general population will be at risk from any noise effects (USEPA 1974).

Air Force policy for many years has been to implement, where feasible, noise level reduction (NLR) measures in on-Base residential and public use buildings. NLR measures are intended to reduce indoor noise levels to DNL 45 dBA or less. Recommended NLR for housing is 25 dBA for units in the DNL 65 to 70 dBA noise zone and 30 dBA for those in the DNL 70 to 75 dBA zone. Buildings constructed prior to implementation of the Noise Reduction Policy were not necessarily built to NLR standards. Since implementation of the NLR standards, all new buildings are designed and constructed to comply with the appropriate NLR standards (USAF 1978).

3.3 SOLID WASTE MANAGEMENT

Solid waste at Charleston AFB is managed in accordance to the guidelines specified in Air Force Instruction (AFI) 32-7042, *Solid and Hazardous Waste Compliance*. The instruction incorporates by reference the requirements of Subtitle D, 40 CFR Parts 240 through 244, 257, and 258, and other applicable federal regulations, AFIs and Department of Defense Directives. In general, AFI 32-7042 establishes the requirement for installations to have a solid waste management program to incorporate the following: a solid waste management plan; procedures for handling, storage, collection, and disposal of solid waste; record-keeping and reporting; and pollution prevention.

The RCRA Part B permit identifies 111 sites (95 Solid Waste Management Units and 16 Areas of Concern) at Charleston AFB as potentially impacted by past hazardous material or hazardous waste activities that require investigation and remediation. Charleston AFB removes solid waste from the installation using a solid waste disposal contractor. The contractor collects the waste from receptacles and transports them to a waste to an energy incinerator. No on-Base landfills or hardfills are in operation. Large items that cannot be incinerated are placed in roll-offs and taken to a municipal landfill. Industrial wastes are taken to the HazMat Pharmacy and disposed of using the Blanket Purchasing Agreement set up through the Defense Reutilization and Marketing Office (USAF 2002b).

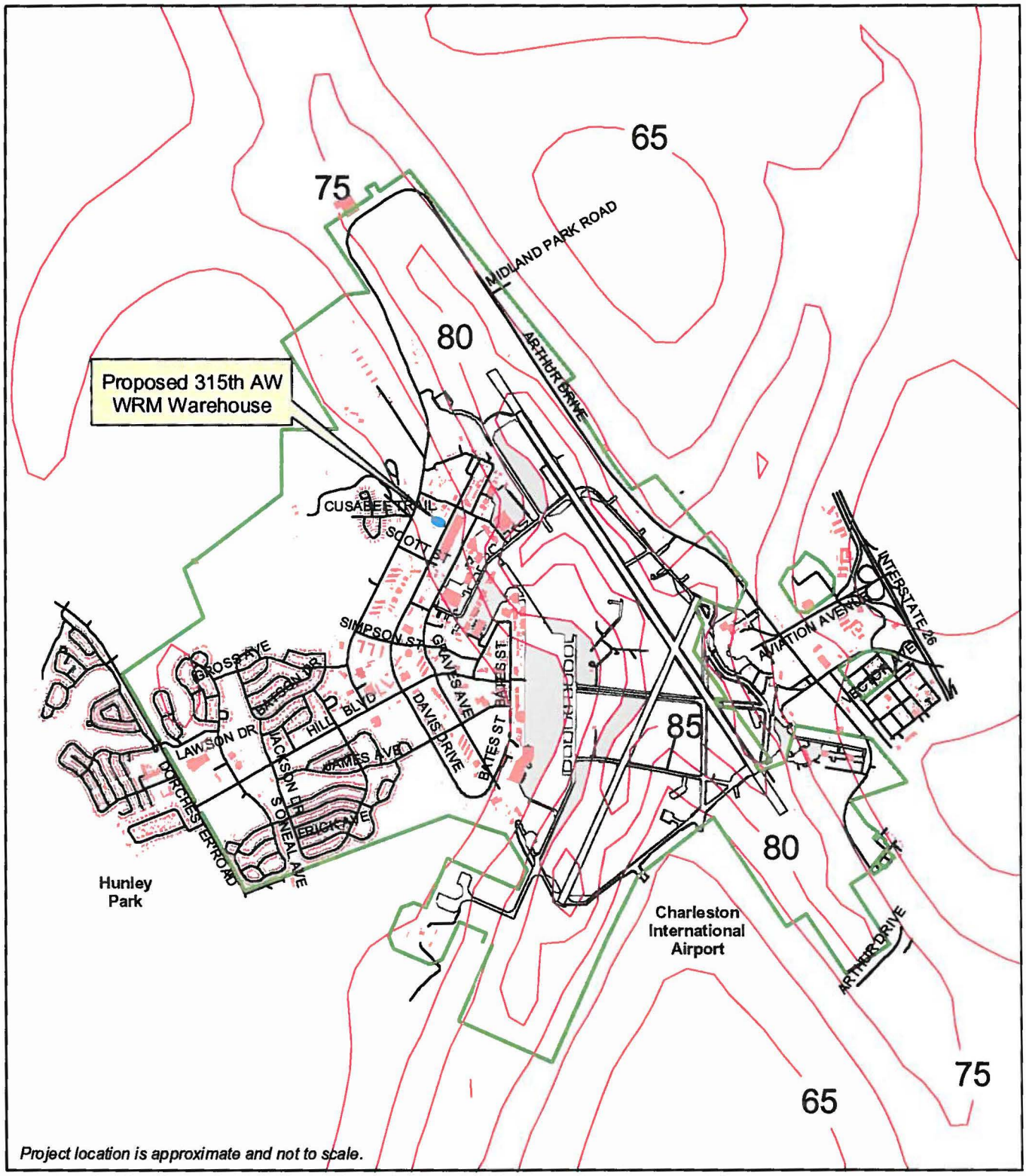


Figure 3-2
Average Busy Day Noise Contours for Future Aircraft Operations
Charleston
Air Force Base

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Charleston County picks up recyclable materials such as glass, plastic bottles, metal cans, mixed paper (includes newspapers and magazines), cardboard and wood from collection containers around the Base, including military family housing. Construction and demolition (C&D) debris such as concrete, asphalt and steel rebar is recycled. C&D rubble that cannot be recycled is disposed of in a C&D landfill. Other items that are reused or recycled on Charleston AFB include C-17 tires, scrap metal, anti freeze, JP-8, batteries, compact discs, cooking oil from dining facilities, bubble wrap and wooden pallets (USAF 2002b).

3.4 HAZARDOUS MATERIALS AND WASTES

3.4.1 Hazardous Materials

Unless otherwise exempted by Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) regulations, Resource Conservation and Recovery Act (RCRA), Subtitle C (40 CFR Parts 260 through 270) regulations are administered by the USEPA and are applicable to the management of hazardous wastes. Hazardous waste must be handled, stored, transported, disposed, or recycled in accordance with these regulations.

The storage, handling, recycling, and disposal of hazardous wastes are subject to regulations under the RCRA of 1976 and its 1988 amendments. RCRA regulatory authority has been delegated to the state by the USEPA. The Charleston AFB Hazardous Waste Management Plan (December 20, 1999) fulfills the requirements in Title 40, CFR Parts 260-270, which establishes procedures to achieve and maintain regulatory compliance regarding accumulation, transportation, and disposal of hazardous waste.

The purchase and use of hazardous materials on Charleston AFB must be authorized by the Base's Hazardous Materials Management Plan established by AFI 32-7086, *Hazardous Materials Management*. As part of this program, the Base operates a hazardous materials pharmacy. All hazardous materials enter the Base through the pharmacy. Base functions request the hazardous material and quantity from the Base pharmacy and the material is delivered to or picked up by the requesting function. No hazardous material may be used until it is entered into the Environmental Management Information System and approved for use. Under this system, the hazardous material pharmacy personnel maintain positive records for the location of the containers, from issue to return and ultimate disposal. The Hazardous Materials Management Plan applies to all activities, including contractors.

3.4.2 Hazardous Wastes

Unless otherwise exempted by CERCLA regulations, RCRA, Subtitle C (40 CFR Parts 260 through 279) regulations are administered by the USEPA and are applicable to the management of hazardous wastes. Hazardous waste must be handled, stored, transported, disposed, or recycled in accordance with these regulations.

Charleston AFB is registered with the USEPA as a large quantity generator of hazardous waste under USEPA facility ID number SC3570024460. Hazardous wastes are generated at approximately 35 initial hazardous waste accumulation points, and are temporarily stored at

Charleston AFB's Part B permitted facility. Charleston AFB generated 62,390 pounds of hazardous waste in 2002. Hazardous wastes are transported to off-site commercial facilities for disposal. Charleston AFB does not receive waste from off-site sources (Deese 2003).

3.5 COASTAL ZONE CONSISTENCY

As Charleston AFB is located within the South Carolina coastal zone, all federal projects must be reviewed to ensure consistency with the South Carolina Coastal Zone Management Act. Details of the Act can be found in the South Carolina State Statutes, 1976 Code Sections 48-39-10 through 48-39-230. Coastal zone consistency is reviewed by the SCDHEC, Office of Ocean and Coastal Resource Management (OCRM). OCRM's charge is to guide the wise preservation and utilization of coastal resources through the efforts of an overall coastal zone management program and permitting process.

CHAPTER 4
ENVIRONMENTAL CONSEQUENCES

This chapter provides the scientific and analytic basis for the environmental consequences of the Proposed Action and No Action Alternative.

4.1 AIR QUALITY

Impacts to air quality would be considered significant if federal actions resulted in violation of the NAAQS, resulted in annual emissions of a pollutant greater than 250 tons per year (definition of a "major stationary source" in an attainment area as defined in 40 CFR 52.21(b) (1), or exceeded any significance criteria established by the South Carolina State Implementation Plan.

4.1.1 Proposed Action

Fugitive dust from ground disturbing activities, combustive emissions from construction equipment, and emissions from asphalt paving operations would be generated during construction and demolition. Fugitive dust would be generated from activities associated with site clearing, grading, cut and fill operations, and from vehicular traffic moving over the disturbed site. These emissions would be greatest during the initial site preparation activities and would vary from day to day depending on the construction phase, level of activity, and prevailing weather conditions.

The quantity of uncontrolled fugitive dust emissions from a construction site is proportional to the area of land being worked and the level of construction activity. The USEPA has estimated that uncontrolled fugitive dust emissions from ground-disturbing activities would be emitted at a rate of 80 lbs of TSP per acre per day of disturbance (USEPA 1995). In a USEPA study of air sampling data at a distance of 50 meters downwind from construction activities, PM_{10} emissions from various open dust sources were determined based on the ratio of PM_{10} to TSP sampling data. The average PM_{10} to TSP ratios for top soil removal, aggregate hauling, and cut and fill operations is reported as 0.27, 0.23, and 0.22, respectively (USEPA 1988). Using 0.24 as the average ratio for purposes of analysis, the emission factor for PM_{10} dust emissions becomes 19.2 lbs per acre per day of disturbance. Fugitive dust emissions from demolition activities would be generated primarily from building dismemberment, debris loading, and debris hauling. The USEPA has established a recommended emission factor of 0.011 lbs of PM_{10} per square foot of demolished floor area. This emission factor is based on air sampling data taken from the demolition of a mix of commercial brick, concrete, and steel buildings (USEPA 1988).

The USEPA also assumes that 230 working days are available per year for construction (accounting for weekends, weather, and holidays), and that only half of these working days would result in uncontrolled fugitive dust emissions at the emitted rate described above (USEPA 1995). The construction emissions presented in Table 4-1 include the estimated annual PM_{10} emissions associated with the Proposed Action at Charleston AFB. These

emissions would produce slightly elevated short-term PM_{10} ambient air concentrations. The USEPA estimates that the effects of fugitive dust from construction activities would be reduced significantly with an effective watering program. Watering the disturbed area of the construction site twice per day with approximately 3,500 gallons per acre per day would reduce TSP emissions as much as 50 percent (USEPA 1995). Watering is usually accomplished as a best management practice.

Table 4-1 Proposed Action Emissions

CRITERIA AIR POLLUTANT	CO (TPY)	VOC (TPY)	NOX (TPY)	SOX (TPY)	PM10 (TPY)
Trident EQC CY99Totals[a]	247,389	46,010	70,038	83,330	25,007
Proposed Action Emissions[b]	0.34	0.06	0.77	0.08	0.23
Project Emissions as Percent of EQC Emissions	0.0014%	0.00014%	0.00110%	0.00001%	0.00094%

a AIRData 2002.

b Estimated emissions from construction of Proposed Action. It is anticipated that construction would begin in November 2004 and end in July 2004, for a total duration of 9 months

tpy tons per year. Watering is not included in the emission calculation for PM and CO.

Note: VOC is not a criteria air pollutant. However, VOC is reported because, as an ozone precursor, it is a controlled pollutant.

Specific information describing the types of construction equipment required for a specific task, the hours the equipment is operated, and the operating conditions vary widely from project to project. For purposes of analysis, these parameters were estimated using established cost estimating methodologies for construction and experience with similar types of construction projects (Means 1996). Combustive emissions from construction equipment exhausts were estimated by using USEPA approved emissions factors for heavy-duty diesel-powered construction equipment (USEPA 1995). The construction emissions presented in Table 4-1 include the estimated annual emissions from construction equipment exhaust associated with the Proposed Action at Charleston AFB. As with fugitive dust emissions, combustion emissions would produce slightly elevated air pollutant concentrations. However, the effects would be temporary, fall off rapidly with distance from the proposed construction site, and would not result in any long-term impacts. Table 4-1 lists the annual emissions and the annual percent of change when compared to the baseline for the Proposed Action.

Emissions would also be expected from asphalt paving operations. The primary pollutant from asphalt paving is CO; however, minor emissions of other criteria pollutants can be expected. To determine potential emissions from asphalt paving operations, it was assumed that the unit weight of asphalt concrete is 149 pounds per cubic foot. The quantity of asphalt concrete required for each construction project is based on an assumed pavement depth of 12 inches. The USEPA has established emission factors for CO, VOC, SO_x, NO_x, and PM_{10} of 0.340, 0.017, 0.005, 0.025, 0.020 lbs of pollutant per ton of asphaltic concrete, respectively. Expected emissions from asphalt paving are included under the annual project emissions in the Table 4-1 data. Emissions from paving would last only as long as the duration of construction activity, fall off rapidly with distance from the construction site, and would not result in long-term impacts.

Review of data in Table 4-1 indicates that the greatest increase in emissions from demolition, construction, and renovation activities would be NO_x (0.77 tons), which equates to 0.0011 percent of the NO_x emissions within the EQC region. The emissions would be temporary and would be eliminated after completion of the activity. Emissions fall below the 10 percent level that would be considered regionally significant by the USEPA if the region were non-attainment for any of the criteria pollutants as stated in 40 CFR 51, Subpart W, Section 852. However, the area is in attainment. Therefore, the air emission impacts from the construction activities associated with the Proposed Action would not be considered significant.

Based on the requirements outlined in the USEPA's general conformity rule published in 58 Federal Register 63214 (November 30, 1993) and codified at 40 CFR part 93, subpart B (for federal agencies), a conformity analysis is required to analyze whether the applicable criteria air pollutant emissions associated with the project equal or exceed the threshold emission limits that trigger the need to conduct a formal conformity determination. The intent of the conformity rule is to encourage long range planning by evaluating air quality impacts from federal actions before the projects are undertaken. This rule establishes an elaborate process for analyzing and determining whether a proposed project in a non-attainment area conforms to the SIP and federal standards. As reflected by the conformity analysis calculations, emissions from the Proposed Action would fall below the 10 percent level that would be considered regionally significant by the USEPA if the region were non-attainment. However, the EQC region is in attainment. For these reasons a conformity determination would not be required.

4.1.2 No Action Alternative

Emissions would continue to be generated by Charleston AFB activities such as aircraft operations and other aircraft maintenance activities, as well as vehicle, boiler, generator, and fueling operations, and industrial processes. It is anticipated the emissions from these activities would continue at the levels generated under the baseline condition. There would be no additional emissions created by construction activity due to the no action alternative.

4.1.3 Mitigation

Potential criteria pollutant emissions associated with the Proposed Action would not exceed significance criteria requirements. Therefore, no mitigative actions would be required.

4.1.4 Cumulative Impacts

The Air Force proposes to conduct two other construction projects during the same period as the proposed construction of the 315 AW WRM warehouse at Charleston AFB. Additionally, the Charleston International Airport would construct a parking garage during that time period. For analysis purposes, the emissions from these projects were combined with the Proposed Action emissions to represent the most conservative condition that would occur in any one year for cumulative condition impacts. The methodology used to calculate the emissions for the Proposed Action was used for the cumulative condition. Table 4-2 lists the annual emissions and the annual percent of change when compared to the baseline for the Proposed Action cumulative condition.

Table 4-2 Proposed and Other Actions Emissions

CRITERIA AIR POLLUTANT	CO (TPY)	VOC (TPY)	NOX (TPY)	SOX (TPY)	PM10 (TPY)
Trident EQC CY99Totals[a] Annual Emissions	247,389	46,010	70,038	83,330	25,007
Project Emissions					
Proposed Action	0.34	0.06	0.77	0.08	0.23
Other Actions	32.60	6.20	75.90	8.23	20.11
Project Emissions[b]	32.94	6.26	76.67	8.31	20.34
Project Emissions as Percent of EQC Emissions	0.0001%	0.0001%	0.0011%	0.0001%	0.008%

a AIRData 2002.
b Estimated emissions from Proposed Action and other action activities.
tpy tons per year.
Note: VOC is not a criteria air pollutant. However, VOC is reported because, as an ozone precursor, it is a controlled pollutant

Review of the data in Table 4-2 indicates that the other actions would generate more emissions than the Proposed Action. The greatest increase in emissions from construction activities for the cumulative condition would be NO_x (76.67 tons), which equates to 0.0011 percent of the NO_x emissions within the Trident EQC region. The cumulative condition would be temporary and would be eliminated after completion of the construction activities. Emissions for the cumulative condition falls below the 10 percent level that would be considered regionally significant by the USEPA if the region were non-attainment for any of the criteria pollutants as stated in 40 CFR 51, Subpart W, Section 852. However, the area is in attainment. Therefore, the air emissions from the construction activities associated with the Proposed Action cumulative condition would not be considered significant.

4.2 NOISE

An environmental impact analysis related to noise includes the potential impacts on the local population. In considering the basis for evaluating significance of noise impacts, several items were examined, including: 1) the degree to which noise levels generated by construction activities would be higher than the ambient noise levels; 2) the degree to which there would be annoyance and/or activity interference; and 3) the exposure of noise-sensitive receptors to noise levels above 65 dBA.

4.2.1 Proposed Action

Assuming that noise from the construction and demolition equipment radiates equally in all directions, the sound intensity would diminish as the distance from the source increases. As the receptor distance from the source doubles, the sound energy (amplitude) decreases by a factor of 4. Table 4-3 shows the anticipated sound pressure levels at a distance of 50 feet for miscellaneous heavy equipment.

The 315 AW WRM warehouse would be constructed under the Proposed Action. Equipment and vehicles involved in site preparation, grading and construction, foundation

preparation, construction, and finishing work would generate the primary source of noise from these activities. Construction noise would be intermittent and short-term in duration. Typical noise levels generated by these activities would range from 75 to 89 dB at 50 feet from the source.

Table 4-3 Heavy Equipment Noise Levels at 50 Feet

Equipment Type	Number Used[1]	Generated Noise Levels, L_p (dB)[2]
Bulldozer	1	88
Backhoe (rubber tire)	1	80
Front Loader (rubber tire)	1	80
Concrete Truck	1	75
Concrete Finisher	1	80
Crane	1	75
Asphalt Spreader	1	80
Roller	1	80
Flat Bed Truck (18 wheel)	1	75
Scraper	1	89
Trenching Machine	1	85

1 Estimated number in use at any time.
2 Source: CERL 1978.

For the purposes of this assessment, it is estimated the shortest distance between a noise source and a receptor such as a nearby building would be at least 50 feet. Noise related to the construction projects may have a short-term impact on the functions in nearby buildings. Outdoor noise from construction activity at an occupied building 50 feet from the noise source could be as high as 75 to 89 dB (see Table 4-3). Interior noise levels during construction activity would be reduced from the 75 to 89 dB level by approximately 18 to 27 dB due to the NLR properties of the building's construction materials (USDOT 1992). This reduced level of noise could annoy as many as 36 percent of nearby persons (refer to Section 3.3.1 and Table 3-3) and cause disruption of speech during the noise event. The closest noise sensitive receptor such as residences, schools, or hospitals is the Base clinic, which is about 0.5 mile from the project site.

The potential for hearing loss involves direct exposure on a regular, continuing, long-term basis to noise levels above 75 dBA. As stated in subchapter 3.3.2, hearing loss projections are based on an average daily outdoor exposure of 16 hours over a 40-year period. It is anticipated the construction activities would occur between 7:30 a.m. and 4:00 p.m., 5 days per week for the duration of the project. Individuals would not be outdoors for the entire noise producing period. Under this condition, persons would not be exposed to long-term and regular noise above 75 dB. Therefore, nearby building occupants would not experience loss of hearing. Sleep interference is unlikely because the construction activities would occur during the daytime and the distance between the noise source and residential areas would attenuate the noise.

The number and type of aircraft operations would not change under the Proposed Action. Therefore, the primary source of noise at Charleston AFB would continue to be from aircraft operations and the noise contours would not change. It should be noted that noise from flying activities would tend to mask the noise generated by construction projects for the same exposure area. The perception would be that construction noise likely would not be discernible during periods of aircraft operations. However, there could be periods of time during which construction noise could be discerned and provide minor annoyance. This condition would occur when construction activity is underway and flying activity is low.

The 315 AW WRM warehouse would be in the DNL 65-70 dBA noise zone. As stated in subchapter 3.3.2, the Air Force NLR policy is to reduce interior noise levels in residential and public use buildings to DNL 45 dBA or less. Therefore, the new warehouse would be designed and constructed to reduce interior noise by 25 dBA from the exterior noise levels.

4.2.2 No Action Alternative

The warehouse would not be constructed. Noise exposure throughout the Base would remain at baseline levels.

4.2.3 Mitigation

No significant noise impacts would occur. Therefore, no mitigation would be necessary.

4.2.4 Cumulative Impacts

The distance between the Proposed Action and the other project sites is great enough that there would be no combination of construction noise from the project sites. No significant cumulative noise impacts would be anticipated.

4.3 SOLID WASTE MANAGEMENT

Impacts to the infrastructure and utility systems would be considered significant if the federal action substantially increased the demands on systems, resulting in the need for additional capacity or new facilities.

4.3.1 Proposed Action

In considering the basis for evaluating the significance of impacts on solid waste, several items were considered. These items include evaluating the degree to which the Proposed Action waste generation could affect the existing solid waste management program and the capacity of the area landfill. Analysis of the impacts associated with the proposed demolition and construction activities is based on the following assumptions:

- Approximately 4 pounds of construction debris is generated for each square foot of floor area for new structures (Davis 1995); and

- Approximately 1 pound of construction debris is generated for each square foot of new asphalt/concrete pavement.

Type IV solid waste would be generated from implementation of the Proposed Action. These wastes would consist of building debris and construction materials such as concrete, metals (roofing, reinforcement bars, conduit, piping, etc.), fiberglass (roofing materials and insulation), cardboard, plastics (PVC piping, packaging material, shrink wrap, etc.), and lumber. It is estimated that 10,700 square feet of new structures and parking space would be constructed. Based on these data and the assumptions listed above, it is estimated that approximately 17 tons of demolition and construction debris would be generated by the Proposed Action construction.

It is assumed the contractor would recycle materials to the maximum extent possible, thereby reducing the amount of C&D debris disposed in the landfill. Disposal of demolition, construction, and renovation debris from the Proposed Action would increase the disposal rate at the C&D landfill over the construction period. However, the exact amount of debris cannot be estimated at this time and this analysis assessed the most conservative condition. Thus, not all the 17 tons of debris would be disposed of in a landfill.

4.3.2 No Action Alternative

No construction activities would occur. Although there could be minor variations in the number of personnel authorizations at the Base, no large-scale changes such as those associated with unit changes would occur. For these reasons solid waste generation would continue at the levels experienced under the current conditions.

4.3.3 Mitigation

No significant solid waste impacts would be anticipated. Therefore, no mitigation would be required.

4.3.4 Cumulative Impacts

It is estimated that 59,790 square feet of new structures and 670,440 square feet of parking space would be constructed under the other actions. Based on these data and the assumptions listed in subchapter 4.3.1, it is estimated that approximately 455 tons of demolition and construction debris would be generated by the other actions. Cumulatively, 472 tons of debris would be generated. The disposal assumptions in subchapter 4.3.1 would apply to the Proposed Action cumulative condition. Thus, not all the 455 tons of debris would be disposed of in a landfill.

4.4 HAZARDOUS MATERIALS AND WASTES

Impacts to hazardous materials and waste management would be considered significant if the federal action resulted in noncompliance with applicable federal and South Carolina environmental quality regulations, caused waste generation that could not be accommodated by current Charleston AFB waste management capacities.

4.4.1 Proposed Action

Hazardous Materials. Products containing hazardous materials could be procured and used during the proposed construction activities for the Proposed Action. Contractors would be required to use and store hazardous materials in accordance with all federal, state, and local regulations. Any hazardous materials used in the 315 AW WRM warehouse would be managed using the existing hazardous materials management procedures.

Hazardous Waste. Hazardous wastes could be generated during the construction activities. It is anticipated the quantity of hazardous wastes generated during construction would be negligible. The construction contractor would maintain records of all waste determinations, including appropriate results of analysis performed, substances and sample locations, date and time of collection, and other pertinent data as required by 40 CFR Part 280, Section 74 and 40 CFR, Part 262, Subpart D.

In the event of a spill of any amount or type of hazardous material or waste (petroleum products included), the construction contractor would take immediate action to contain and clean up the spill. Contractor spill clean up personnel would be trained and certified to perform spill clean up. The contractor would be responsible for proper characterization and disposal of any waste and clean up materials generated. All waste and associated clean up material would be removed from the project site and transported and/or stored in accordance with regulations until final disposal. The manifest for hazardous waste going off-base must be signed by the 437 CES/CEV Program Manager.

The potential for hazardous waste generation from warehouse activities would be negligible. Any hazardous waste generated at the facility would be handled in accordance with federal, state, and local laws and regulations, including RCRA requirements for waste management and Department of Transportation requirements for waste transport.

4.4.2 No Action Alternative

The mission of Charleston AFB would not change under the No Action Alternative. Thus, the Base would continue to accomplish the activities that occur under the current condition. The existing processes and procedures, which accommodate current activities, would continue to be used to manage hazardous materials and hazardous wastes. No significant impacts occur from the volumes of the materials used, generated, and stored under the existing conditions.

4.4.3 Mitigation

No significant hazardous materials and hazardous wastes impacts would be anticipated. Therefore, no mitigation would be required.

4.4.4 Cumulative Impacts

The discussion and analysis for the Proposed Action would apply to the cumulative condition. No significant hazardous materials and wastes cumulative condition impacts would be anticipated.

4.5 COASTAL ZONE CONSISTENCY

Charleston AFB will seek a Finding of Consistency from the SCDHEC, Office of OCRM before proceeding with the Proposed Action.

4.6 UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts would result from implementation of the Proposed Action.

4.6.1 Air Quality

The emission of air pollutants associated with facilities construction is an unavoidable condition, but is not considered significant and a Clean Air Act General Conformity Determination would not be required.

4.6.2 Noise

Noise resulting from anticipated construction activities is an unavoidable condition. Although some annoyance may occur, no sleep disturbance or speech interference is anticipated for the Proposed Action. Hearing impairment is not expected. Noise would not be considered a significant impact.

4.6.3 Solid Waste Management

The generation of C&D debris is an unavoidable occurrence, although not considered significant. .

4.6.4 Hazardous Materials and Wastes

Hazardous materials could be used and hazardous wastes could be generated during the construction activities as well as the operation of the facility after construction is completed. However, the volumes of materials for either condition would not be considered significant.

4.7 RELATIONSHIP BETWEEN SHORT-TERM USES AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The Proposed Action would not result in intensification of land use in the area surrounding the Base. Development of the Proposed Action or No Action Alternative would not represent a significant loss of open space. The sites are designated for aviation general purpose uses, and were not planned for use as open space. Therefore, it is not anticipated that

the Proposed Action or No Action Alternative would result in any cumulative land use or aesthetic impacts. Long-term productivity of the sites would be enhanced by development of the Proposed Action.

4.7.1 Irreversible and Irretrievable Commitment of Resources

The irreversible environmental changes that would result from implementation of the Proposed Action or No Action Alternative involve consumption of material resources, energy resources, land, and human resources. The use of these resources is considered to be permanent.

4.7.2 Material Resources

Building materials (for construction of facilities), concrete and asphalt (for facilities, runways, and roads), and various material supplies (for infrastructure) would be used for the Proposed Action. Most of the materials are not in short supply, and are readily available from suppliers in the region. Use of these materials for the proposed action would not limit other unrelated construction activities.

4.7.3 Energy Resources

Energy resources such as petroleum-based products (such as gasoline and diesel), natural gas, and electricity would be used for the Proposed Action and would be irretrievably lost. Gasoline and diesel would be used for operation of construction vehicles. Natural gas and electricity would be used to operate facilities. Consumption of these energy resources would not place a significant demand on their supply systems or within the region.

4.7.4 Land

Implementation of the Proposed Action would result in construction of new facilities on the Base. This land would be lost to other uses during the operational life of the facilities. The loss of open space is not considered irreversible.

4.7.5 Human Resources

The use of human resources for construction and operation is considered an irretrievable loss only in that it would preclude the affected personnel from engaging in other work activities. However, the use of human resources for the proposed action represents employment opportunities, and is considered beneficial

CHAPTER 5
LIST OF PREPARERS

NAME	DEGREE	PROJECT CONTRIBUTION	YEARS OF EXPERIENCE
Martin, John, A.I.C.P	B.S., Business Administration M.S., City and Regional Planning	Chapters 1 and 2	28
Wallin, John	B.A., Biology M.A., Management	Project Manager; Air Quality; Noise; Solid Waste Management; Hazardous Materials and Wastes	32
Wooten, R.C., Ph.D.	Ph.D., Ecology and Biology	Technical Manager	34

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CHAPTER 6
PERSONS AND AGENCIES CONSULTED

The following persons and agencies consulted during preparation of this EA.

Urrutia, Al.	Natural Resources Department, Charleston AFB.
Lewis, Lt. Raymond	Bioenvironmental Engineering Department, Charleston AFB
Bussell, Vaughn	Program Development, Civil Engineering Flight, Charleston AFB
Deese, Harold	NEPA Section, Environmental Flight, Charleston AFB
Legg, Julie	Air Quality Section, Environmental Flight, Charleston AFB
Pape, Henry	Solid and Hazardous Waste, Environmental Flight, Charleston AFB
Thompson, Keith	Natural and Cultural Resources, Environmental Flight, Charleston AFB

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CHAPTER 7
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APPENDIX A
AIR FORCE FORM 813

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REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol
RCS: 03-15

INSTRUCTIONS: *Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).*

SECTION I - PROPONENT INFORMATION

1. TO (*Environmental Planning Function*)	2. FROM (*Proponent organization and functional address symbol*)	2a Telephone No.
437CES/CEVP	437CES/CECP	4988

3. TITLE OF PROPOSED ACTION
CONSTRUCT 315TH WRM WAREHOUSE

4. PURPOSE AND NEED FOR ACTION *(identify decision to be made and need date)*
SEE PAGE 2

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) *(Provide sufficient details for evaluation of the total action)*
SEE PAGE 2

6. PROPONENT APPROVAL (*Name and Grade*)	6a. SIGNATURE	6b. Telephone No.
VAUGHN BUSSELL	*VAUGHN BUSSELL*	4988

SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. (*Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U = unknown effect)*	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE *(Noise, accident potential, encroachment, etc.)*		X		
8. AIR QUALITY *(Emissions, attainment status, state implementation plan, etc.)*		X		
9. WATER RESOURCES *(Quality, quantity, source, etc.)*		X		
10. SAFETY AND OCCUPATIONAL HEALTH *(Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife*		X		
11. HAZARDOUS MATERIALS *Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard,*		X		
12. BIOLOGICAL RESOURCES *(Wetlands/floodplains, threatened or endangered species, etc.)*		X		
13. CULTURAL RESOURCES *(Native American burial sites, archaeological, historical, etc.)*		X		
14. GEOLOGY AND SOILS *(Topography, minerals, geothermal, Ins, etc.)*		X		
15. SOCIOECONOMIC *(Employment/population projections, school and local fiscal impacts, etc.)*		X		
16. OTHER *(Potential Impacts not addressed above)*		X		

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

17.
- [ ] PROPOSED ACTION QUALIFIES FOR CATEGORY EXCLUSION (CATEX) # ____ ;OR
- [X] PROPOSED ACTION DOES NOT QUALIFIED FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS
THIS PROJECT DOES NOT QUALIFY FOR A CATEX. AN ENVIRONMENTAL ASSESSMENT (EA) MUST BE PREPARED. THIS EA IS ALREADY IN PROGRESS WITH ECD IN DECEMBER 03.

CHARLESTON AIR FORCE BASE IS IN AN ATTAINMENT AREA AND AN AIR CONFORMITY ANALYSIS IS NOT REQUIRED.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (*Name and Grade*)	19a. SIGNATURE	19b. DATE
HAROLD DEESE, P.E. GS-11 ENVIRONMENTAL ENGINEER	*HAROLD DEESE, P.E.*	29 0CT 03

4. PURPOSE AND NEED FOR ACTION: AN ADEQUATELY SIZED, PROPERLY CONFIGURED, AND SUITABLY LOCATED FACILITY IS REQUIRED TO SATISFY THE 315 WRM/MOBILITY STORAGE REQUIREMENTS. THIS FACILITY WILL PROVIDE SPACE FOR STORAGE, RECEIVING, SHIPPING, INSPECTION, AND WAR READINESS STORAGE OF SUPPLIES AND EQUIPMENT NECESSARY TO SUPPORT 315 TRAINING AND REAL-WORLD OPERATIONS. AT THE END OF FY02, THE 315TH RECEIVED SIGNIFICANT QUANTITIES OF WRM/MOBILITY EQUIPMENT POTENTIALLY IN PREPARATION FOR RESPONSE TO REAL-WORLD EVENTS. ADEQUATE STORAGE SPACE IS UNAVAILABLE TO ACCOMMODATE THIS UNEXPECTED RECEIPT OF EQUIPMENT. THE ITEMS ARE CURRENTLY BEING STORED AT LOCATIONS ACROSS THE BASE IN WHATEVER SPACE IS AVAILABLE. SUCH MULTIPLE STORAGE LOCATIONS NOT ONLY PREVENT THE MOBILITY EQUIPMENT FROM BEING READILY AVAILABLE AT A CENTRALIZED LOCATION, BUT FURTHER INTERFERES WITH THE DAILY ACTIVITIES OF THE CURRENT FACILITIES WHICH ARE BEING REQUIRED TO ABSORB THE ADDITIONAL ITEMS.

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA): CONSTRUCT 315TH WAR READINESS MATERIAL WAREHOUSE (AFRC). : EXCAVATION, FILL AND COMPACTION; CONSTRUCTION OF 8,000 SF PRE-ENGINEERED BUILDING WITH CLIMATE CONTROLLED INTERIOR OFFICE AND BATHROOM, STANDING SEAM SLOPED METAL ROOF, AND EXTERIOR FINISHES IN ACCORDANCE WITH BASE ARCHITECTURAL COMPATIBILITY PLAN; INSTALLATION OF ASPHALT PAVEMENT WITH CONCRETE CURBS AND GUTTERS, FIRE DETECTION/ALARM/SUPPRESSION SYSTEMS, COMMUNICATIONS SUPPORT FOR VOICE AND DATA SYSTEMS, MATERIAL HANDLING EQUIPMENT, AND ALL NECESSARY AND REQUIRED UTILITIES AND WORK ASSOCIATED WITH THIS PROJECT. THE FACILITY WILL PROVIDE SPACE FOR THE STORAGE OF 315TH WAR READINESS MATERIAL AND ASSOCIATED MOBILITY EQUIPMENT.

NO ACTION ALTERNATIVE: FAILURE TO ADDRESS THE STORAGE REQUIREMENTS OF THE 315TH COULD POTENTIALLY AFFECT ESTABLISHED MOBILITY RESPONSE TIMES AND IMPACT ON THEIR ABILITY TO ACCOMPLISH THE PRIMARY MISSION.

APPENDIX B
DEPARTMENT OF DEFENSE FORM 1391

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1. COMPONENT	FY 2004 ~~MILITARY CONSTRUCTION~~ PROJECT DATA	2. DATE
AFRC		11 FEB 03

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
CHARLESTON AIR FORCE BASE, SOUTH CAROLINA	CONSTRUCT 315TH WRM WAREHOUSE

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
5.53.76F	219-947	DKFX04-9031	EEIC 529 $[redacted]

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
CONSTRUCT 315TH WRM WAREHOUSE				[redacted]
ARCHITECTURAL/STRUCTURAL	SF	8,000	[redacted]	([redacted])
UTILITIES	LS			([redacted])
PAVEMENTS WITH CURBS/GUTTERS	SY	300	[redacted]	([redacted])
SITE IMPROVEMENTS	LS			([redacted])
SUBTOTAL				[redacted]
OVERHEAD AND PROFIT ([redacted]%)				[redacted]
TOTAL FUNDED COST				[redacted]
OTHER APPROPRIATIONS:				
MATERIAL HANDLING SYSTEMS				[redacted]

~~10. DESCRIPTION OF PROPOSED CONSTRUCTION:~~ Excavation, fill and compaction; construction of 8,000 SF pre-engineered building with climate controlled interior office and bathroom, standing seam sloped metal roof, and exterior finishes in accordance with base Architectural Compatibility Plan; installation of asphalt pavement with concrete curbs and gutters, fire detection/alarm/suppression systems, communications support for voice and data systems, material handling equipment, and all necessary and required utilities and work associated with this project. The facility will provide space for the storage of 315th war readiness material and associated mobility equipment.

REQUIREMENT: 11,000 SF ADEQUATE: 3,000 SF SUBSTANDARD: 0 SF

PROJECT: Construct 315th War Readiness Material Warehouse (AFRC)

REQUIREMENT: An adequately sized, properly configured, and suitably located facility is required to satisfy the 315th WRM/Mobility storage requirements. This facility will provide space for storage, receiving, shipping, inspection, and war readiness storage of supplies and equipment necessary to support 315th training and real-world operations.

CURRENT SITUATION: At the end of FY02, the 315th received significant quantities of WRM/Mobility equipment potentially in preparation for response to real-world events. Adequate storage space is unavailable to accommodate this unexpected receipt of equipment. The items are currently being stored at locations across the base in whatever space is available. Such multiple storage locations not only prevent the mobility equipment from being readily available at a centralized location, but further interferes with the daily activities of the current facilities which are being required to absorb the additional items.

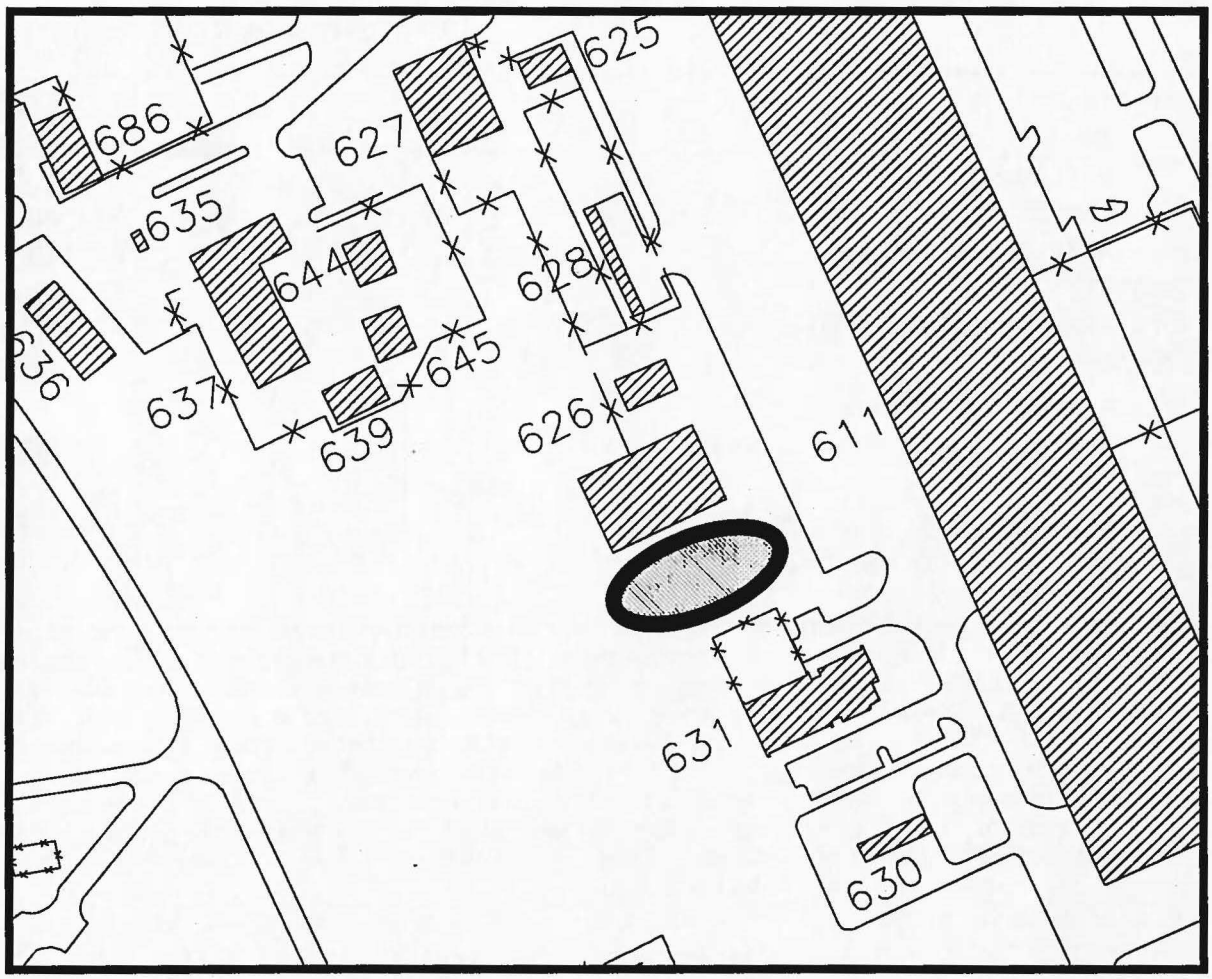
IMPACT IF NOT PROVIDED: Failure to address the storage requirements of the 315th could potentially affect established mobility response times and impact on their ability to accomplish the primary mission.

1. COMPONENT	FY 2004 ~~MILITARY CONSTRUCTION~~ PROJECT DATA	2. DATE
AFRC		11 FEB 03

3. INSTALLATION AND LOCATION

CHARLESTON AIR FORCE BASE, SOUTH CAROLINA

4. PROJECT TITLE	5. PROJECT NUMBER
CONSTRUCT 315TH WRM WAREHOUSE	DKFX04-9031



CONSTRUCT 315TH WRM WAREHOUSE

PROJECT SITE PLAN

Not To Scale

APPENDIX C
SITE PHOTOGRAPHS

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Photo 1 View from project site facing west.

Photo 2 View from north toward project site.

Photo 3 View of project site across ditch facing southwest.

Photo 4 View of project site across low lying area northeast.

Photo 5 View of site project from parking lot facing north.

Photo 6 View of site project from parking lot facing northwest.

Photo 7 View of site project and ditch area from parking lot.

Photo 8 View of site project and ditch area facing west from parking lot.

Photo 9 View of site project from parking lot facing southwest.

AFFIDAVIT
OF
PUBLICATION

The Post and Courier

State of South Carolina

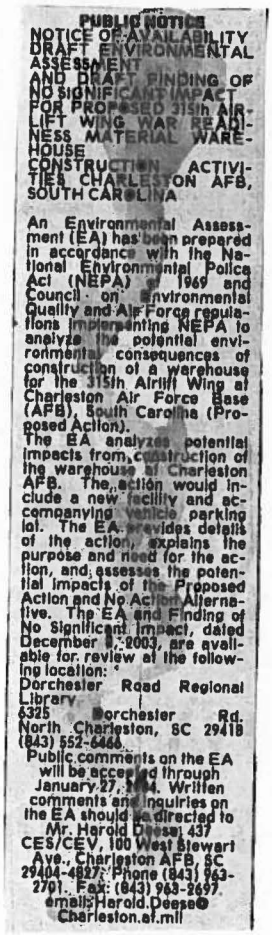
County of Charleston

Personally appeared before me the undersigned advertising Clerk of the above indicated newspaper published in the City of Charleston, County and State aforesaid, who, being duly sworn, says that the advertisement of

(copy attached)

appeared in the issues of said newspaper

on the following day(s): DECEMBER 28, 2003



PUBLIC NOTICE
NOTICE OF AVAILABILITY DRAFT ENVIRONMENTAL ASSESSMENT AND DRAFT FINDING OF NO SIGNIFICANT IMPACT FOR PROPOSED 315th AIRLIFT WING WAR READINESS MATERIAL WAREHOUSE CONSTRUCTION ACTIVITIES CHARLESTON AFB, SOUTH CAROLINA

An Environmental Assessment (EA) has been prepared in accordance with the National Environmental Police Act (NEPA) of 1969 and Council on Environmental Quality and Air Force regulations implementing NEPA to analyze the potential environmental consequences of construction of a warehouse for the 315th Airlift Wing at Charleston Air Force Base (AFB), South Carolina (Proposed Action).
The EA analyzes potential impacts from construction of the warehouse at Charleston AFB. The action would include a new facility and accompanying vehicle parking lot. The EA provides details of the action, explains the purpose and need for the action, and assesses the potential impacts of the Proposed Action and No Action Alternative. The EA and Finding of No Significant Impact, dated December 8, 2003, are available for review at the following location:
Dorchester Road Regional Library
6325 Dorchester Rd.
North Charleston, SC 29418
(843) 552-6468
Public comments on the EA will be accepted through January 27, 2004. Written comments and inquiries on the EA should be directed to Mr. Harold Deese, 437 CES/CEV, 100 West Stewart Ave., Charleston AFB, SC 29404-4827; Phone (843) 963-2701, Fax: (843) 963-2697, email: Harold.Deese@Charleston.af.mil

Subscribed and sworn to before me this 5th day of January D. 20 04

Krista Eddings
(Advertising clerk)

Shelly Dubens
NOTARY PUBLIC, SC
My Commission Expires 10/10/13

The Post and Courier

134 Columbus Street
Charleston, SC 29403

Order:	C270LR76	Pubs:	1,5	Ex. Charges:	$ 0.00
Phone:	5127196000	Class:	955	List Price:	$ 124.59
Account:	H680057	Start Date:	12/28/2003	Payments:	$ 0.00
Name:	Wallin, John	Stop Date:	12/28/2003	Total Price:	$ 124.59
Firm:	PARSONS	Insertions:	2	Print By:	C44
		Lines:	63	Ad Rep	C27

PUBLIC NOTICE

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The Post and Courier

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STAFF SUMMARY SHEET

	TO	ACTION	SIGNATURE (Surname), GRADE AND DATE		TO	ACTION	SIGNATURE (Surname), GRADE AND DATE
1	MSG/ CCE	COORD	C Kirkpatrick, Capt, 2 Dec 03	6	AW/CVS	COORD	[signature]
2	MSG/CD	COORD	LV	7	AW/CV	SIGN	[signature]
3	MSG/CC	COORD	DORAN, COL, 3 DEC 03	8			
4	AW/CCE	COORD	N/A	9			
5	AW/CVE	COORD	Thibodeaux, maj, 5 Dec	10			

SURNAME OF ACTION OFFICER AND GRADE	SYMBOL	PHONE	TYPIST'S INITIALS	SUSPENSE DATE
Harold Deese, GS-11	CEVP	2701	hod	

SUBJECT: Finding Of No Significant Impact (FONSI) for Environmental Assessment (EA) to Construct a New 315 AW War Readiness Material (WRM) Warehouse

DATE: NOV 25 2003

SUMMARY

1. PURPOSE. Request AW/CV sign FONSI at Tab for subject EA. IAW 32 CFR 989, the FONSI must be signed by the Environmental Protection Committee (EPC) chairperson.

2. BACKGROUND. WRM for the 315 AW is currently stored at various locations around the base. A new 315 WRM warehouse is needed to store this material in one location. This will improve readiness and enhance distribution when the material is needed for deployment. An EA was prepared for the project, which resulted in a FONSI.

3. RECOMMENDATION. AW/CV sign at the tab.

[signature]

KYLE E. HICKS, Lt Col, USAF
Commander, 437 CES

Tab
FONSI

FINDING OF NO SIGNIFICANT IMPACT

CONSTRUCTION OF 315TH AIRLIFT WING WAR READINESS MATERIAL WAREHOUSE CHARLESTON AIR FORCE BASE, SOUTH CAROLINA

Department of the Air Force, Air Mobility Command, Charleston Air Force Base (AFB), South Carolina.

BACKGROUND

Charleston AFB (the Base) has the requirement to construct a War Readiness Material (WRM) warehouse for the 315th Airlift Wing (315 AW), a tenant unit at the Base. Currently, WRM equipment is being stored in multiple facilities at the Base, thereby impacting the facilities because they were not designed to store the type or volume of equipment that the 315 AW possesses. The new WRM warehouse would provide space for storage, receiving, shipping, inspection, and war readiness storage of supplies and equipment necessary to support 315 AW training and real-world operations.

PROPOSED ACTION

An 8,000 square foot pre-engineered structure with climate controlled interior office and bathroom space, a standing seam sloped metal roof, and exterior finishes that complies with the Base Architectural Compatibility Plan will be constructed. The warehouse will have fire detection/alarm/suppression systems, communications support for voice and data systems, and material handling equipment. Utilities (*i.e.*, water, electricity, and natural gas distribution as well as wastewater collection) will be installed as needed and approximately 2,700 square feet of asphalt pavement for vehicle parking and access to the facility, along with concrete curbs and gutters, will be constructed. It is estimated that activities associated with the Proposed Action will begin in November of 2004 and will be completed in about nine months. There will be no change in the number of military active duty or reserve, government civilian, or contractor personnel at Charleston AFB

NO ACTION ALTERNATIVE

The Air Force Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] 989.8(d)) states: "...except in those rare instances where excused by law, the Air Force must always consider and assess the environmental impacts of the "no action" alternative. No construction activities at facilities needing repair, renovation, or replacement will occur. Personnel authorizations will remain at current levels.

SUMMARY OF FINDINGS

Pursuant to National Environmental Policy Act (NEPA) guidance, 32 CFR 989, and other applicable regulations, the Air Force completed an environmental assessment (EA) of the potential environmental consequences of multiple operations and maintenance and construction projects. The EA, which supports this Finding of No Significant Impact, evaluated the Proposed Action and No Action Alternative.

EVALUATION OF THE PROPOSED ACTION

Air Quality. Emissions from construction activities will be temporary, lasting approximately nine months during the construction period. The greatest increase for any of the criteria air pollutants is 0.77 tons per year for nitrogen oxide (NO_x), equating to 0.0011 percent of the NO_x emissions within the Trident Environmental Quality Control region. A Conformity Determination is not required.

Noise. Construction noise will be temporary, will occur only during daytime, and will cease when the project is completed.

Solid Waste. About 17 tons of construction debris will be generated by the project. However, the exact amount that would be disposed in a landfill is unknown because the contractor will recycle debris to the maximum extent practicable.

Hazardous Materials and Wastes. Construction contractors will use and store hazardous materials in accordance with federal, state, and local regulations. It is anticipated the quantity of hazardous wastes generated during construction would be negligible. The construction contractor will maintain records of all waste determinations in accordance with federal, state, and local regulations. Hazardous materials use, as well as hazardous wastes generation, from activities at the 315 AW WRM warehouse will be managed or disposed of using the existing hazardous materials management procedures.

EVALUATION OF THE NO ACTION ALTERNATIVE

No significant impacts occur from the baseline activities.

ENVIRONMENTAL JUSTICE

Based on analysis conducted for this EA, it is determined that activities associated with the Proposed Action and No Action Alternative will not impose adverse environmental effects on adjacent populations. Therefore, no disproportionately high and adverse effects will occur to minority and low-income populations.

DECISION

Based on my review of the facts and analyses contained in this EA, I conclude that implementation of the Proposed Action will not have a significant impact, either by itself or when considering cumulative impacts. Accordingly, requirements of NEPA, regulations promulgated by the Council on Environmental Quality, and 32 CFR 989 are fulfilled and an environmental impact statement is not required.

8 Dec 03

KARL B. YOUNG, Colonel, USAF
Vice Commander, 437th Airlift Wing
Chair, Environmental Protection Committee
Charleston AFB, SC

Date

Deese Harold O Civ 437 CES/CEV

From: Deese Harold O Civ 437 CES/CEV
Sent: Friday, November 14, 2003 9:52 AM
To: Wallin, John
Cc: Urrutia Alvaro E Civ 437 CES/CECV; Deese Harold O Civ 437 CES/CEV
Subject: RE: 315 WRM EA

John,

I have reviewed the NOA and EA for subject project and the following CEV comments are provided:

1. Page 1, line 8 of the FONSI; add "to" after requirement for correctness.
2. Page 2, line 13 of the FONSI; clarify use of "hazardous materials or hazardous waste". Is it one or both?
3. Page 2, line 24 of the FONSI; delete quotation mark (") at end of sentence.
4. Page CS-1, line 14; change to lower case the word "TO".
5. Page 1-12, line 22-23; change "appropriate state and federal agencies" to "Base Environmental Flight Office".
6. Page 1-12, line 26; add "to the", between "change" and "number".
7. Page 1-12, line 39; change "EIRP" to "ERP".
8. Page 1-12, line 42; change "It is possible there is a transite pipe underground at the site" to read "It is possible that transite pipe may be encountered underground at the site".
9. Page 1-13, line 3; change "IRP" to read "ERP".
10. Page 1-13, line 5; "proposed improvements to the gates"????, appears to be a statement from the previous EA on the AT/FP Gates EA. Correct to suit.
11. Page 1-14, line 9; delete 9 since there is no data on line 9.
12. Page 3-4, line 23 table 3-2; estimated amounts are provided for CAFB CY 2003 Baseline Air Emissions. These amounts are very close to actual amounts except for VOC. Change VOC to 48.
13. Page 3-5, line 11; change "day-nigh" to read "day-night" for correctness.
14. Page 6-1, line 4 table; change "Nguyen, Van" to read "Legg, Julie" for accuracy.
15. Page 6-1, lines 5-6; delete these line numbers since there is no data on these lines.
16. GENERAL; I know it was raining during the site visit but, if you have any decent photos, add an Appendix C and include them.
17. GENERAL; The NOA is acceptable. However, our policy is not to advertise the EA/FONSI until it is final. Therefore, once we receive the final FONSI we will staff it up to Col Young for signature. After he signs the FONSI we will FedEx it back to you for inclusion into the EA and to advertise it for thirty days. You will provide us with three copies of the final EA to place in the library and our office. If comments are received, which we have never had any on any of our projects, they will be incorporated and the EA finalized. If no comments are received the EA and project are good to go. It will take approximately two weeks to staff it up for signature. We will need your FedEx number to send it back.

Thanks for your assistance in preparing this EA. If you have any questions or comments please email or call 843-963-2701.

Harold Deese
Environmental Engineer
COML: 843-963-2701
DSN : 673-2701

-----Original Message-----
From: Wallin, John [mailto:John.Wallin@parsons.com]
Sent: Thursday, November 13, 2003 12:54 PM
To: Deese Harold O Civ 437 CES/CEV
Cc: Urrutia Alvaro E Civ 437 CES/CECV
Subject: RE: 315 WRM EA

Harold,

Just wondering if you had a chance to review the NOA and also when we might receive comments to the PDEA. Thanks much.

John

-----Original Message-----
From: Wallin, John
Sent: Friday, November 07, 2003 7:57 AM
To: 'Deese Harold O Civ 437 CES/CEV'
Cc: Urrutia Alvaro E Civ 437 CES/CECV
Subject: RE: 315 WRM EA

Harold,

The attached file is a draft/proposed notice of availability (NOA) of the EA for publication in a newspaper. I've omitted the dates in the draft since we don't know the exact dates at this time. However, I expect the ad will run and the 30-day comment period will start approximately November 17. I'll insert the dates at the appropriate time and coordinate for publishing the NOA. I'd appreciate it if you would please review the NOA and let me know of your comments/changes.

I see the AT/FP NOA was published in the Post and Courier and expect the NOA for the 315 facility will run in the same paper. Please let me know if there is a differenct paper.

Thanks for your assistance.

John

-----Original Message-----
From: Deese Harold O Civ 437 CES/CEV [mailto:Harold.Deese@charleston.af.mil]
Sent: Tuesday, November 04, 2003 10:05 AM
To: Wallin, John
Cc: Urrutia Alvaro E Civ 437 CES/CECV
Subject: RE: 315 WRM EA

John,

I have attached the 813 for inclusion in the draft. We need three copies of the draft for review.

Thanks,

Harold Deese ☺

Environmental Engineer
COML: 843-963-2701
DSN : 673-2701

-----Original Message-----
From: Wallin, John [mailto:John.Wallin@parsons.com]
Sent: Tuesday, November 04, 2003 10:21 AM
To: Deese Harold O Civ 437 CES/CEV; Urrutia Alvaro E Civ 437 CES/CECV
Subject: 315 WRM EA

Harold and Al,

If all goes well, I hope to have the preliminary draft of the 315 WRM EA out today. The long pole for getting it out today is word processing and production here in the office. It should be out by tomorrow at the latest and you will have it the day after it goes out here.

We have a spot in the appendix for the AF Form 813. I believe John Martin mentioned that you all would produce an 813 and send it over. Will it be ready for inclusion this PDEA? Should I hold the PDEA pending receipt of the 813? Or, should we send the PDEA without the 813, realizing it will be available for the draft?

Also, how many hard copies of the PDEA do you need for Charleston?

Thanks much,

John

PARSONS

8000 Centre Park Drive, Suite 200 • Austin, Texas 78754 • (512) 719-6000 • Fax: (512) 719-6099 • www.parsons.com

November 5, 2003

Tracy Kissler
HQ AFCEE/ECE
3300 Sidney Brooks
Brooks City-Base, TX 78235-5363

Re: Environmental Impact Analysis Process for Anti-terrorism/Force Protection Construction Activities at Various Air Mobility Command Installations (Travis AFB, CA; McChord AFB, WA; Fairchild AFB, WA; McConnell AFB, KS; Charleston AFB, SC; and Grand Forks AFB, ND), F41624-03-D-8613, Task Order 0027
Preliminary Draft EA for 315th Airlift Wing War Readiness Material Warehouse

Dear Mr. Kissler:

One copy of the subject documents is enclosed. With a copy of this letter, we distributed the document to 437 CES/CEV and HQ AMC/CEVP according to the distribution schedule below. If you have any questions concerning documents, feel free to call me at (512) 719-6010.

Sincerely,

John Wallin
Delivery Order Manager

cc:

Mr. Harold Deese	437 CES/CEV (3 copies)
Lt Col John Keoshian	HQ AMC/CEVP (1 copy)
311 HSW/PKVAB	(Ltr only)
HQ AFCEE/MSCD	(Ltr only)
Mr. Jack Sullivan	Parsons-San Antonio

Recommended schedule:

Preliminary draft EA delivered to CAFB	November 7
CAFB Comments on PDEA delivered to Parsons	November 14
Draft EA delivered to CAFB	November 20
Public availability of draft EA	November 20 to December 20
Public comments delivered to Parsons	December 20
Final EA / FONSI delivered to CAFB	December 30

PUBLIC NOTICE

NOTICE OF AVAILABILITY
DRAFT ENVIRONMENTAL ASSESSMENT
AND DRAFT FINDING OF NO SIGNIFICANT IMPACT
FOR PROPOSED 315th AIRLIFT WING WAR READINESS MATERIAL WAREHOUSE
CONSTRUCTION ACTIVITIES CHARLESTON AFB, SOUTH CAROLINA

An Environmental Assessment (EA) has been prepared in accordance with the *National Environmental Policy Act* (NEPA) of 1969 and Council on Environmental Quality and Air Force regulations implementing NEPA to analyze the potential environmental consequences of construction of a warehouse for the 315th Airlift Wing at Charleston Air Force Base (AFB), South Carolina (Proposed Action).

The EA analyzes potential impacts from construction of the warehouse at Charleston AFB. The action would include a new facility and accompanying vehicle parking lot. The EA provides details of the action, explains the purpose and need for the action, and assesses the potential impacts of the Proposed Action and No Action Alternative. The Draft EA and Draft Finding of No Significant Impact, dated November __ 2003, are available for review at the following location:

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CHARLESTON AFB 315TH WAR RESERVE MATERIAL WAREHOUSE
QUESTIONS FOR EA PREPARATION

1. Are there any alternative actions to be considered in the EA or other alternatives that were considered but not carried forward?
2. What criteria were used for locating the site for the Preferred Action and the other alternative sites?
3. Why was the Preferred Action site chosen and the other sites not chosen?
4. Does the warehouse need to be a separate structure? Could the storage area be contained in an addition to an existing building?
5. Is the project location shown correctly on Figure 2-1?
6. Can Parsons get a copy of the AF Form 813 for this project?
7. What is the size of the parcel that will be disturbed for the warehouse construction? (AQ)
8. Will the warehouse be constructed on a vacant site or will an existing building be razed to make way for the warehouse? If so, how large is the old building? (AQ, Noise)
9. Will a local firm be hired to raze the old building and/or construct the new warehouse? (Socecon)
10. Are there any hazardous materials, such as lead based paint, asbestos, etc., in the building to be razed? (Hazmat)
11. What is the duration of construction? (AQ)
12. If an existing building is to be razed, is it currently being used? If so, where will the activity and current ___ (#) employees be relocated to? (Transportation, AQ, Infrastructure)
13. How many employees will work at the new warehouse? Are these new employees? Are they military or civilian? Will they be relocated from another base? Will they be hired locally? (Socecon, Transportation, Infrastructure)
14. What is the net gain (loss) of employment at CAFB as a result of the proposed action?
15. Will the proposed action result in a change of traffic patterns into or out of the base?
16. What are the activities in and around the nearby buildings? What is the distance to these buildings? Are there any outside activities near the new warehouse site? What is the distance to this outside activity? (Noise)
17. How far is the warehouse from noise sensitive land uses (residential, hospitals, schools, etc.)
18. What is the recommended path for construction equipment to access the warehouse site from off base? (Noise, Transportation)
19. Cumulative impacts will include runway lighting system (including new building), the reconstruction of the gates, and the new CIA parking garage. Is this correct?
20. How deep will required excavation be for the warehouse foundation? (Water, Geology, Soils)

21. At what level is the water table at the project site and any alternative sites? (Water, Geology, Soils)
22. It is assumed that 10,700 SF of impermeable surface will be added (if no existing construction on the site). Is this correct? (Water)
23. Where will runoff from the site be directed? (Water)
24. The warehouse site seems to contain or be near a number of Environmental Restoration Program (ERP) sites. Parsons would like to get a detailed map of the ERP sites in the vicinity of the warehouse site and any alternative sites. We would also like to get information about the characteristics of each of the ERP sites in the vicinity of the warehouse sites. (Water)
25. It is assumed that the Proposed Action would not disturb any habitat for plant or animal species, endangered or otherwise. Is this correct? (Biological resources)
26. Where is the nearest wetland to the warehouse site? From the map I have, it appears that there is a wetland located immediately adjacent to the west of the warehouse site. *Check to see if we have a better maps that would show the wetland along with the building numbers.* (Biological resources)
27. What is the land use designation for the warehouse site? *Note – land use of the site is designated industrial.* (Land Use)
28. What are the land uses in the area of the warehouse site? *Land uses in the vicinity are designated industrial, and the wetland is designated open buffer. It is not near any off base land properties.* (Land Use)
29. Are there any special infrastructure requirements of the new warehouse, such as special water, sewer, or electrical requirements? (Infrastructure)
30. It appears that the warehouse site is located outside of the Clear Zone. It appears to be located in the 65dBA area. Is this correct? (Land Use)

Recommended schedule:

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Public availability of draft EA	November 20 to December 20
Public comments delivered to Parsons	December 20
Final EA / FONSI delivered to CAFB	December 30

Deese Harold O Civ 437 CES/CEV

From: Garrett Jeffrey P Civ 437 CES/CEV
Sent: Friday, October 31, 2003 8:53 AM
To: Urrutia Alvaro E Civ 437 CES/CECV
Cc: Deese Harold O Civ 437 CES/CEV
Subject: FW: Data Collection--Dover C-17 Basing EIAP

FYI and Action. Please contact Mr. Wallin and work through any issues he may have and prepare for visit. Establish yourselves as the POC for Charleston on these issues. Thanks

Jeff

-----Original Message-----
From: Wallin, John [mailto:John.Wallin@parsons.com]
Sent: Thursday, October 30, 2003 3:40 PM
To: Allbright Doug GS-13 AMC/A7PC; Kissler Tracy C Civ AFCEE/ECE; Mikula Charles Civ 436 CES/CEV
Cc: Garrett Jeffrey P Civ 437 CES/CEV; Archer Christopher GS-13 305 CES/CEV; Keoshian John Lt Col AMC/A7PC; 'dotmiller1@juno.com'; Lester Bob R Civ AFCEE/ECS
Subject: Data Collection--Dover C-17 Basing EIAP

Gentlemen,

To those of you whom I have not met--greetings. I am John Wallin and am the Parsons project manager for the upcoming Dover C-17 Basing EA. As you likely know, basing 12 C-17s at Dover is the proposed action and Charleston and McGuire will be assessed as alternative actions in the EA, as will Dover with a 24 C-17 aircraft condition. The purpose of this email is to identify and determine the aircraft operations conditions to use at each base and ALZ as the baseline condition in the basing EA. This will help us bring the right persons for aircraft ops/maintenance data collection at each installation, to include that for the ALZs, for the C-17 basing EA.

The schedule submitted with our proposal prior to award of the delivery order had data collection as follows:

Dover---17-21 Nov
McGuire---1-5 Dec
Charleston---8-12 Dec

We are still planning on this schedule. Please advise if this is not an executable schedule. I intend to send out tomorrow or early next week a list of materials we typically request during data collection, as well as a list of organizations to interview for aircraft ops/maintenance data collection.

One of the key events in the data collection process is aircraft operations and aircraft maintenance data for use in the noise modeling. With this in mind, I'd like to summarize the conditions at each base/ALZ that I understand may be used for the baseline condition for the Dover C-17 basing EA.

Dover AFB
We (Parsons) assisted the Air Force with preparation of an AICUZ study that was finalized in 1998. In discussion yesterday with Mr. Bob Lester at AFCEE, I learned that Dover had requested AFCEE do, as I understand, some what ifs with selected flight tracks/profiles. Has an EA been accomplished for an aircraft operations change or has other noise modeling been accomplished since the 1998 AICUZ to reflect an operations condition more current than the AICUZ? If so, should the noise condition and contours from that effort be used for the baseline in the C-17 basing EA? If nothing has been done, has there been a significant change in the aircraft operations condition since the AICUZ? If nothing has been done since the AICUZ and there have not been significant changes in the ops tempo since the AICUZ was completed, should the noise contours and related data from the 1998 AICUZ be used as the baseline in the C-17 Basing EA.

Charleston AFB
We (Parsons) are currently assisting Charleston with preparation of an AICUZ study and are nearly complete.

We were set to produce the final version of the AICUZ documents when the AICUZ was put on hold in Sept 03 awaiting a decision as to whether or not the projected homeland defense F-16 operations projected for Charleston should be added to the AICUZ operations condition. Thus, the AICUZ has not been released to the public. The operations condition in the AICUZ reflects the operations associated with the addition of the 4th C-17 squadron at the base. However, we also have the operations data for the 2002 operations condition without the 4th squadron. HQ AMC and Charleston decided after data collection was completed to use the future operations condition reflecting the 4th squadron for the AICUZ. Based on information from data collection in 2002, I understand there had been no EAs accomplished at the base related to aircraft operations for some time. However, AFCEE had collected data in 2000. However, that data were not used for any full noise studies in an AICUZ or an EA. Thus, the data collected in 2002 likely is the most current. Should the 2002 operations condition without the 4th squadron be the baseline for the Charleston alternative in the Dover C-17 basing EA, or should we use the AICUZ condition related to a 4th squadron?

McGuire AFB
We (Parsons) assisted McGuire with the 1998 AICUZ preparation. I understand that 2 and possibly more EAs that have included aircraft ops changes have been completed since the AICUZ. I would imagine that the operations condition from the most recent EA would be appropriate for the baseline condition for the McGuire alternative in the Dover C-17 basing EA. Please advise which EA should be used and forward the executable noise files from that EA process.

North Field ALZ
Data will be collected for North Field during the visit to Charleston. We understand that AFCEE has accomplished data collection at North Field within the recent past and request that data and related noise files be forwarded for use in this EA.

NAES Lakehurst ALZ
We understand that Lakehurst has been identified as the ALZ for Dover as well as for McGuire C-17 aircraft. Data collection at Lakehurst will occur during the visit to McGuire. Request the Air Force coordinate with the Navy/Lakehurst to obtain the noise files for the most recent noise modeling activity.

I udnerstand this may be confusing and please let me know if additional information is needed to provide answers to the above questions. We really would appreciate resolving these questions not later than 7 Nov 03 to allow time to coordinate the right persons for data collection.

Thanks to all for your assistance. We look forward to working with you on this project.

John Wallin