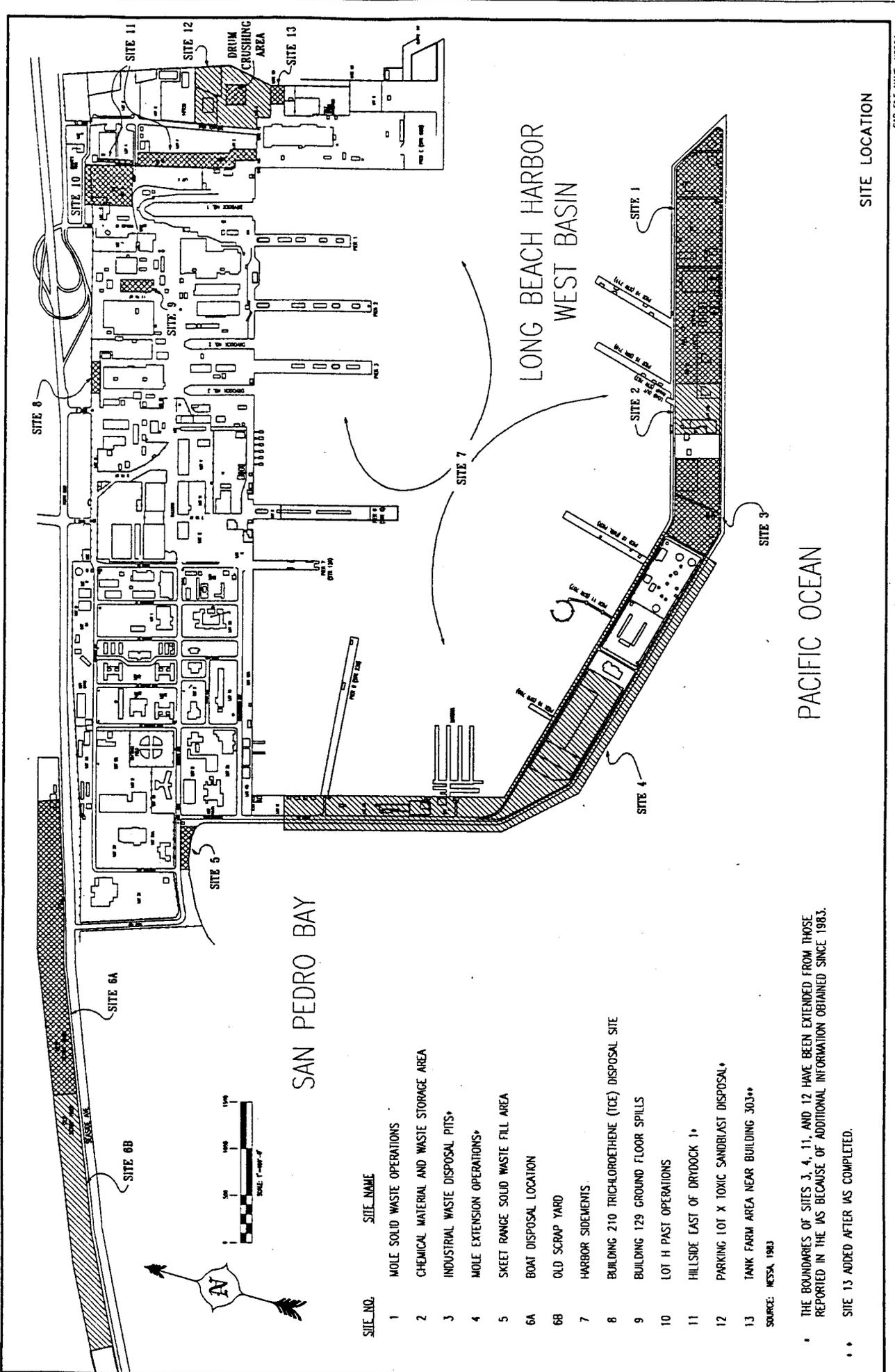


SY IRP Status

- . Tech Memo for contingency sampling/field investigation for Sites 8-13 being written; workshop scheduled for 5 June.
- . Draft Final Addendum RI/FS Workplan & Risk Assessment for West Basin, dated 3-22-95, in review.
- . West Basin (Site 7) Tech Memo due for review and comments in June 1995.
- . Draft RI/FS due 27 Oct 1995, comments due 27 Dec 95.



SAN PEDRO BAY

LONG BEACH HARBOR
WEST BASIN

PACIFIC OCEAN

SITE LOCATION

CAD FILE NAME: NCD34

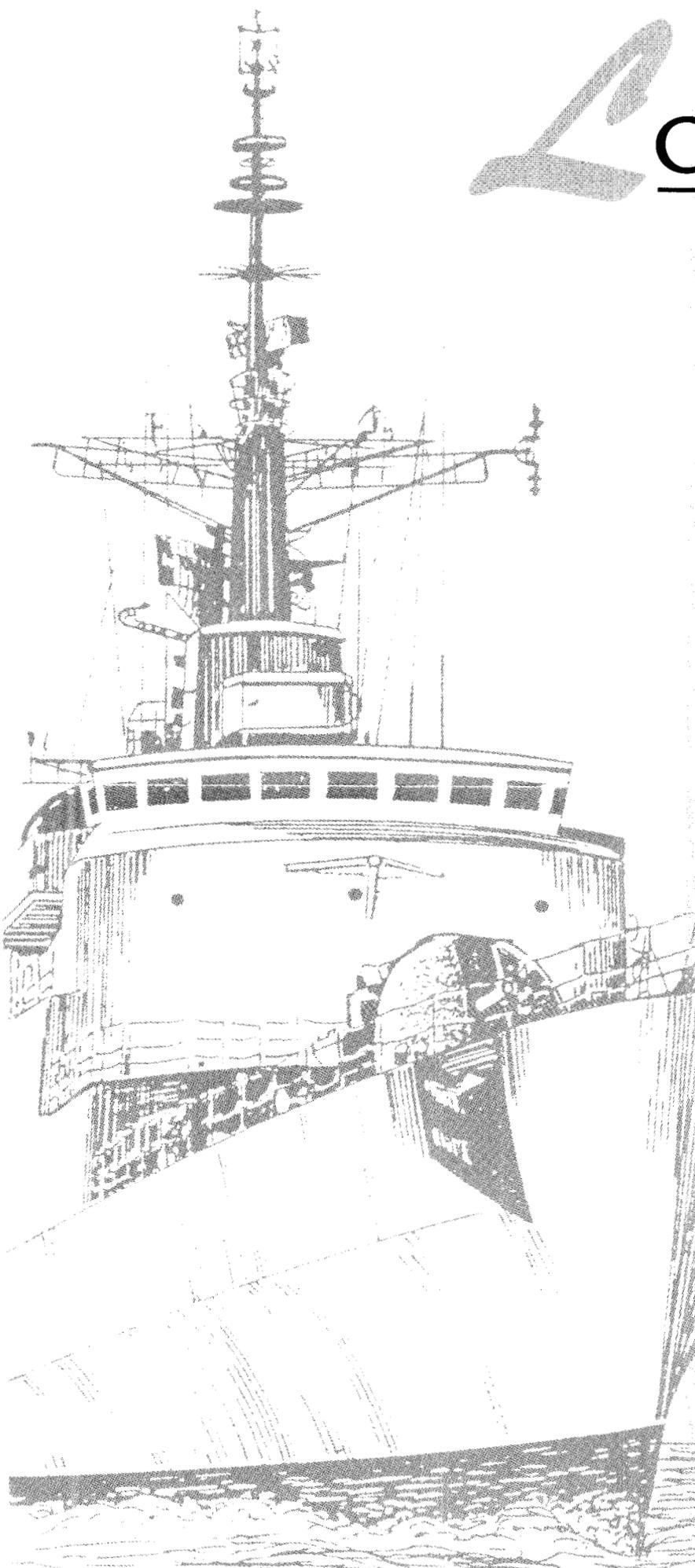
- | SITE NO. | SITE NAME |
|----------|--|
| 1 | MOLE SOLID WASTE OPERATIONS |
| 2 | CHEMICAL MATERIAL AND WASTE STORAGE AREA |
| 3 | INDUSTRIAL WASTE DISPOSAL PITS* |
| 4 | MOLE EXTENSION OPERATIONS* |
| 5 | SKEET RANGE SOLID WASTE FILL AREA |
| 6A | BOAT DISPOSAL LOCATION |
| 6B | OLD SCRAP YARD |
| 7 | HARBOR SIDEMENTS |
| 8 | BUILDING 210 TRICHLOROETHENE (TCE) DISPOSAL SITE |
| 9 | BUILDING 129 GROUND FLOOR SPILLS |
| 10 | LOT H PAST OPERATIONS |
| 11 | HILLSIDE EAST OF DRYDOCK 1* |
| 12 | PARKING LOT X TOXIC SANDBLAST DISPOSAL* |
| 13 | TANK FARM AREA NEAR BUILDING 303** |
- SOURCE: NECSA 1983

* THE BOUNDARIES OF SITES 3, 4, 11, AND 12 HAVE BEEN EXTENDED FROM THOSE REPORTED IN THE IAS BECAUSE OF ADDITIONAL INFORMATION OBTAINED SINCE 1983.

** SITE 13 ADDED AFTER IAS COMPLETED.

**Summary of Potentially Contaminated Sites
Naval Complex Long Beach**

Site Number	Site Location	Site Name	Disposal Period	Waste Description
1	Station	Mole Solid Waste Operations	mid-1940s to mid-1960s	Trash, garbage, metal scrap, sandblast grit, asbestos
2	Station	Chemical Material and Storage Area	mid-1960s to 1980	Waste oils, acids, solvents, paints, chronic acid
3	Station	Industrial Waste Disposal Pits	late-1940s to early 1970s	Waste oil, caustic waste, acidic wastes, sludges, trash
4	Station	Mole Extension Operations	1950s - 1972	Construction debris, sandblast grit, petroleum products, asbestos, trash, soil
5	Station	Skeet Range Solid Waste Fill Area	mid-1930s to 1968	Bed frames, desks, solid waste, construction debris
6A	Station	Boat Disposal Location	1942 to 1965	Sandblast grit, old boats, waste oil, solid waste
6B	Station	Fuel Tank Farm and Old Scrapyard	early 1940's to 1982	Lead batteries, mercury, waste oil, spent sandblast grit, possible fuel releases
7	Station & Shipyard	Harbor Sediments	early 1940s to mid-1970s	Boiler blow-down, rust preventative, lead caulking material, solvents, PCBs, acids, waste oil, grease
8	Shipyard	Building 210 Trichloroethene (TCE) Disposal Site	1974 to 1980	Trichloroethene
9	Shipyard	Building 129 Ground Floor Spills and Quonset Hut	1940 to 1973	Oil, grease, solvents, trichloroethene, cosmoline, paint
10	Shipyard	Lot H Past Operations	1952 to 1957	Batteries, sandblast grit, battery acid, waste oil, solvents, mercury
11	Shipyard	Hillside East of Drydock 1	1950s to 1975	Sandblast grit, cuprous oxide
12	Shipyard	Lot X Toxic Sandblast Disposal	1971 to 1975	Sandblast grit, tributyltin, solvents, petroleum products, paints, trichloroethene, stoddard solvents
13	Shipyard	Tank Farm Area Near Building 303	1970 to Present	Portable storage tanks containing: Sodium nitrite, sulfides, citric acid, trisodium phosphate, oil, solvents, thinners



Environmental Programs at **LONG BEACH**

Naval Complex

This fact sheet describes the investigation of possible hazardous waste contamination at Long Beach Naval Complex under the Department of Defense's Installation Restoration Program. This is the first in a series of fact sheets that will be issued periodically throughout the investigation process. Future fact sheets will update you on the site conditions, provide information on the proposed cleanup alternatives, and inform you of upcoming public participation activities.

Introduction

The Navy is cleaning up Long Beach Naval Complex through the Installation Restoration (IR) Program. The IR Program is the Navy's equivalent to the process used by the U.S. Environmental Protection Agency (EPA), commonly known as the "Superfund" program. Each step of the IR Program is carefully coordinated with federal, state, and local agencies. In addition, the Navy will work closely with the public through the Community Relations Program described on page 2.

The goals of the IR Program are to identify, investigate, and clean up contamination from hazardous substances. The IR Program addresses the cleanup of contamination resulting from past waste management and disposal operations. The Navy has also taken steps to ensure that its existing hazardous materials operations are in compliance with all applicable federal and state environmental regulations. The Navy is the lead federal agency and the California Department of Toxic Substances Control is the lead state agency responsible for overseeing the investigation and cleanup of Long Beach Naval Complex.

At the Long Beach Naval Complex, the IR Program investigation is being done in compliance with a Resource Conservation and Recovery Act (RCRA) Corrective Action Program. RCRA is the federal law governing hazardous waste management. This Act established standards for safe treatment, storage, and disposal of hazardous wastes. The primary objective of the IR Program and RCRA Corrective Action Program is to protect public health and the environment by effective investigation and cleanup of hazardous waste sites.

PREVIOUS INVESTIGATIONS



Between 1969 and 1992, several environmental investigations have been completed at Long Beach Naval Complex to identify and assess any potentially contaminated sites. The first of these investigations was

an industrial waste study completed in December 1969. This study reported the discharge of industrial wastewaters into the West Basin of the Long Beach Harbor, burial of industrial waste liquids and sludges in disposal pits on the breakwater known as "the Mole", and landfilling of solid waste and sandblast grit to enlarge the Mole.

The Initial Assessment Study for the Naval Complex was completed in August 1983. The purpose of this study which was similar to a Preliminary Assessment (see page 5), was to identify and assess potential threats to human health or the environment caused by past hazardous materials storage, handling, or disposal practices. The study included information on waste generating sources, waste handling, storage and transportation procedures, waste processing procedures, and descriptions of disposal sites. It identified 12 potentially contaminated areas.

A RCRA Facility Assessment (RFA) of the Long Beach Naval Complex, dated 30 November 1989, was prepared by the California Department of Toxic Substances Control (DTSC). Under the RFA records review, DTSC evaluated existing data and conducted personnel interviews and a visual site inspection to evaluate the potential for releases of hazardous constituents. The RFA recommended further action at the 12 sites identified during the Initial Assessment Study, as well as one additional site: Site 13. The 13 Sites are shown in Figure 1.

Two Site Inspections were conducted concurrently in 1991 at the Naval Station and Naval Shipyard to investigate the 12 sites identified by the Initial Assessment Study. The purpose of the Site Inspections was to verify the presence of hazardous substance contamination and to assess whether further action is warranted.



A total of 86 soil samples, 27 groundwater samples, and 15 sediment samples were collected. The results of the laboratory analyses were used to evaluate observed releases to groundwater, soil/sediment, surface water, and air pathways. Further investigation was recommended for each of the 12 sites in the final report completed in November 1992.

A RCRA Facility Investigation (RFI) was conducted at Site 13, the tank farm near Building 303, in December 1991. The purpose of the RFI was to assess whether there have been releases of hazardous constituents into the subsurface environment at the tank farm and whether additional investigation or corrective measures are required. Releases were confirmed at Site 13, and the area was recommended for further investigation in the final report completed in December 1992.

CURRENT ENVIRONMENTAL INVESTIGATION

Currently, Remedial Investigation (RI) activities to define the magnitude, extent, direction, and rate of movement of potential contaminants in soil and groundwater are being planned. In addition to characterizing the extent of the contamination, the RI will provide data to support the subsequent Feasibility Study (FS) which will identify and analyze potential cleanup measures.

Health and Safety Plan

A Health and Safety Plan will be prepared to support the Long Beach Naval Complex field investigation efforts. This plan will include procedures for personal protection, personnel and equipment safety, medical assistance, and general work practices. All members of the site investigation team have been trained on proper emergency procedures including emergency response and first-aid capabilities associated with the Long Beach Naval Complex environmental investigation.

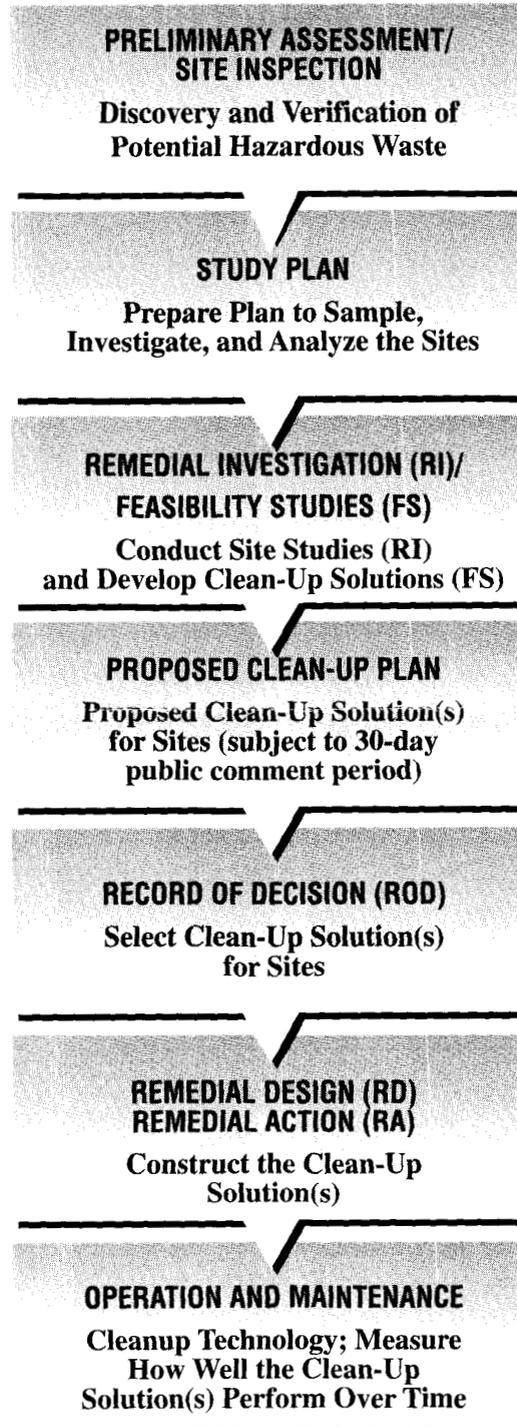
THE COMMUNITY RELATIONS PROGRAM

The Community Relations Program is an essential element of the IR Program. The goals of the Community Relations Program are both to inform the community about the environmental cleanup and to provide the community with opportunities to participate in the decision-making process. To accomplish these goals, community meetings will be held, and public comment periods will be conducted at critical decision points in the process. During public comment periods, concerns expressed by the community will be considered and responded to in the Responsiveness Summary.

Public notices about upcoming public comment periods and meetings will be published in the Los Angeles Times-Long Beach Edition, Long Beach Press Telegram, San Pedro News Pilot, Downtown Gazette, Wrigley Journal, and the Long Beach

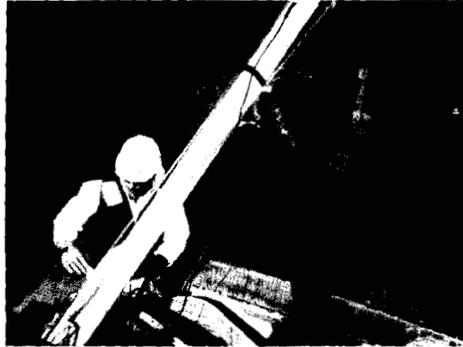
THE INSTALLATION RESTORATION (IR) PROGRAM

*Each of the following steps will be conducted at
Long Beach Naval Complex*



HOW THE INSTALLATION RESTORATION PROGRAM WORKS

The Process



The IR Program begins with a Preliminary Assessment/Site Inspection (PA/SI) of individual sites (within the confines of the overall site) that have been

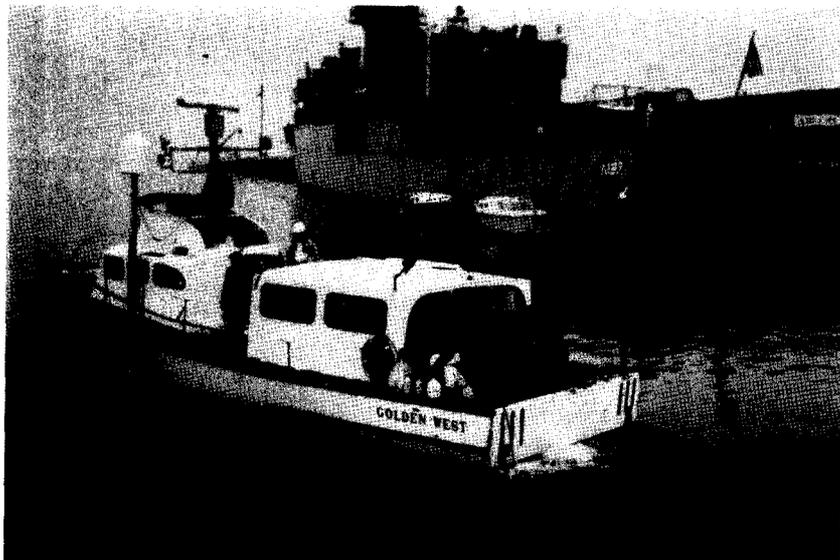
identified as potentially hazardous to the public's health and the environment. This step includes collecting and reviewing all available information and may include off-site surveys to evaluate the source and nature of hazardous substances present. Site Inspections routinely include collecting surface water, groundwater, and soil samples to determine if contamination is present.

Once the site or sites have been identified, the Remedial Investigation (RI) is started. This investigation involves taking numerous soil and water samples and drilling monitoring wells. Each sample of soil and water is carefully packaged, placed in ice, and rushed to a laboratory certified by the State of California and EPA. Each sample is then subjected to a number of different tests to determine if contaminants are present. All field work is performed according to sampling plans approved by the regulatory agencies.

The field work produces thousands of individual "datapoints." These datapoints are stored in a computer data base that is used to develop a picture of the site, and to determine the extent of contamination and evaluate potential risks to human health and the environment. The conceptual picture and the risk information are then evaluated in the Feasibility Study (FS). The FS looks at the possible clean-up alternatives for each site, and evaluates the suitability of these alternatives. The FS helps the investigators determine the most effective way to clean up each individual site. Results from the FS are used to develop the proposed clean-up plan, i.e., soil removal, groundwater treatment, etc.

After formal public review during which the public can give oral and written comments that will be responded to in a document called a Responsiveness Summary, a clean-up plan is selected in the Record of Decision (ROD). Work plans are then developed and the clean-up plan is implemented. The final step in the process is operation and maintenance, which involves continual testing and monitoring to ensure that the cleanup was successful.

LONG BEACH NAVAL COMPLEX DESCRIPTION



Since 1938, the United States Navy has occupied the Long Beach Naval Complex on the south side of Terminal Island in the cities of Long Beach and Los Angeles. The Naval Complex covers approximately 655 acres and harbor areas which include three naval facilities: the Naval Station, Naval Shipyard, and the Fleet and Industrial Supply Center.

The Naval Station was established in 1946 as a component of the U.S. Naval Base Terminal Island, and was renamed Long Beach Naval Station in 1948. As of May 1990, 38 ships were homeported at the Naval Station. The Naval Station includes the Mole, which is a breakwater constructed in 1944 that forms the western and southern boundaries of the West Basin of Long Beach Harbor.

Business Journal. Fact sheets will also be issued periodically about the progress of clean-up activities. For information concerning the community relations program, please contact LT Karl Johnson, Long Beach Naval Station (310/831-8729) or Claire Best, DTSC (310/590-4949).

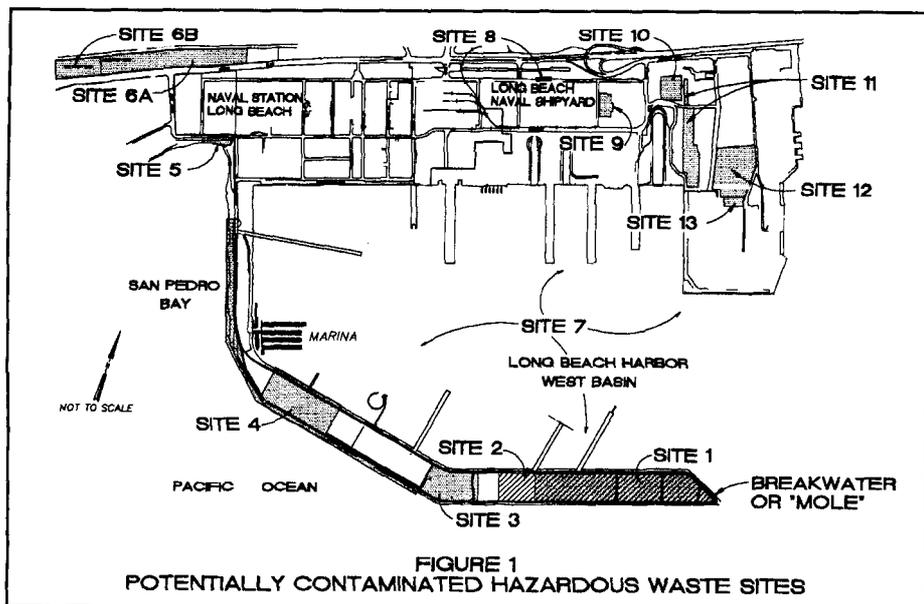
A Technical Review Committee (TRC) has been established to review and comment on proposed actions for cleaning up Long Beach Naval Complex. The TRC includes representatives from state and local regulatory agencies, the City of Los Angeles, the City of Long Beach, and neighborhood associations, and the Navy. The TRC meets as needed to discuss project progress, review reports, and comment on investigation and clean-up activities. After each TRC meeting, summaries of the meeting are mailed to those individuals on the mailing list and to the designated information repositories listed on the back of the this fact sheet.

The mission of the Naval Station is to provide coordination and support to ships and other naval activities in the area. The Fleet and Industrial Supply Center is part of the Fleet and Industrial Supply Center San Diego, and provides supply support to the Station, Shipyard, and designated shore activities.

The Naval Shipyard was commissioned in 1943. In June 1950, the Shipyard was placed on inactive status; it was reactivated again in February 1951. The mission of the Long Beach Naval Shipyard is to maintain, modernize and provide emergency repair of Navy Ships.

Past Disposal Practices

From approximately the mid-1930s to 1980, some areas of the Naval Complex were contaminated as a result of disposal and accidental releases of hazardous substances used in support of the Station and Shipyard operations and mission. In addition to construction debris and other solid wastes, spent sandblast grit, waste oil, plating materials, solvents, and paints have been disposed of at various locations at the Naval Station and Naval Shipyard. Also, hazardous substances have, in the past, been discharged to the harbor via the storm drain system. These past practices, together with leaks and spills, were common, accepted and legal at the time. Today we recognize that some areas of the contamination may potentially be harmful to human health and/or the environment. Previous investigations indicate that none of the past waste disposal practices present an immediate threat to public health or the environment. However, the Navy is working with the State of California to continue extensive studies to confirm this information and to characterize potential long-term risks.



Where You Can Get More Information

Copies of documents and correspondence relating to the environmental cleanup are on file and can be reviewed at the information repositories listed below. The Administrative Record, a legal file of documents upon which the Navy bases its cleanup response action, is on file at Long Beach Naval Station.

Long Beach Public Library

101 Pacific Avenue
Long Beach, CA 90810
310/437-2949

San Pedro Public Library

931 South Getty Street
San Pedro, CA 90731
310/548-7779

Long Beach Naval Station

Library, Building 398
Naval Station
Long Beach, CA 90822-5000
310/547-7349

Wilmington Public Library

1300 North Avalon Avenue
Wilmington, CA 90744
310/834-1082

If you have any questions or comments, would like to be put on the mailing list to receive fact sheets and other information, or would like someone to make a presentation to your group, please contact:

Commander, Long Beach Naval Shipyard

Public Affairs Officer
John Ryan-Code 1160
300 Skipjack Road
Long Beach, CA 90822-5099
310/547-7798

Commander, Naval Surface Group Long Beach

Public Affairs Officer
LT Karl Johnson
Naval Station
Long Beach, CA 90822-5000
310/831-8729

California Department of Toxic Substances Control

Claire Best
Public Participation Specialist
Region 4
245 W. Broadway, Suite 350
Long Beach, CA 90820-4444
310/590-4949

Commanding Officer, Long Beach Naval Station

Facilities Management Department
LCDR John Snyder (Code N4)
Naval Station
Long Beach, CA 90822-5000
310/547-7513

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PUBLIC MEETING

A public meeting has been scheduled to provide more information about the environmental Installation Restoration Program at Long Beach Naval Complex, and provide you an opportunity to ask questions or share your concerns.

Wednesday, July 14, 1993
7:00 p.m.
Commissioned Officer's Club (Allen Center)
Long Beach Naval Station

For more information regarding the public meeting, please contact LT Karl Johnson, Long Beach Naval Station (310/831-8729) or Claire Best, DTSC (310/590-4949).

Naval Shipyard Long Beach
300 Skipjack Road
Long Beach, CA 90822-5099
Attn: John Ryan (Code 1160)



INSTALLATION RESTORATION PROGRAM REMOVAL ACTION

Long Beach Naval Shipyard, Site 11

FACT SHEET #2

JANUARY 1994

Introduction

The Navy is stabilizing an embankment slope and level area at Site 11 of the Long Beach Naval Shipyard (refer to Figure 1). The slope and level area are covered with sandblast grit that was placed as fill material in 1975. The sandblast grit, which originally was used to remove paint from ships and vehicles, will be sealed in place pending the final removal action. The contaminants of concern are metal deposits from paint residue and cuprous oxide, a toxicant that is part of the grit material. These contaminants are toxic when ingested.

This interim removal action is being conducted under the Navy's Installation Restoration (IR) Program. The IR Program was established under the Federal "Superfund" program (CERCLA and SARA) to address contamination and potential public health and environmental impacts resulting from past hazardous waste management and disposal operations. Through the IR Program, the Navy identifies, investigates, and remediates contaminated sites to maintain compliance with applicable Federal, State, and local regulations and to correct or prevent endangerment to public health and the environment. The Navy is overseeing the Site 11 construction activities, which are being performed under a contract with IT Corporation.

To Obtain More Information

This fact sheet is one of a series of information releases designed to inform the public about environmental cleanup activities at the Long Beach Naval Shipyard. The Navy welcomes your interest in this interim removal action. If you would like more information or have questions or comments, please contact the Navy Public Affairs Office.

Public Affairs Officer
John Ryan - Code 1160
300 Shipjack Road
Long Beach, CA 90822-5099
310/547-7798

Please see the following page for additional sources of information.

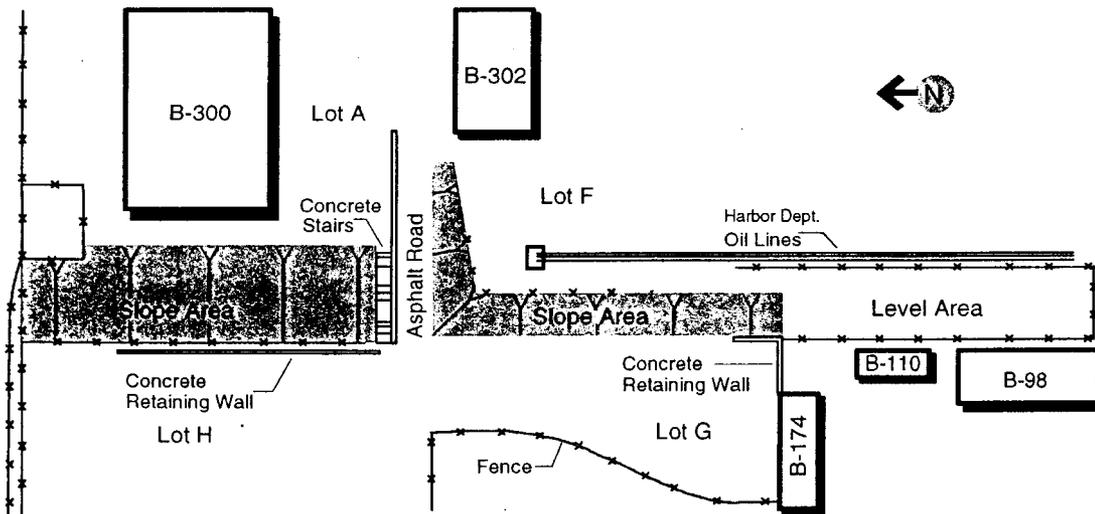


Figure 1
Site 11, Long Beach Naval Shipyard

Site Description and Environmental History

Site 11 consists of an embankment slope and a level area in the eastern portion of the Naval Shipyard; the boundaries of the site are shown in Figure 1. Building 300 (Engineering Management Building) and parking lots A and F are directly east and parking lots H and G are directly west of Site 11. An east-west running asphalt road bisects the site into a north slope that is 460 feet long and a south slope that is 735 feet long. The level area, located adjacent to Buildings 98 and 110, is 350 feet long. Because vegetation (ice plant) covers only a portion of the site, sandblast grit is exposed in many areas.

In 1975, approximately 6,400 cubic yards of sandblast grit was used as fill to extend the natural hillside east of Drydock 1 (Site 11). The sandblast grit contained approximately 46,000 pounds of cuprous oxide. The slope and level area remained undeveloped areas until their inclusion in the Navy IR Program.

Previous Investigations

Under the IR Program, the Navy performed a preliminary assessment/site inspection (PA/SI) of the Site 11 embankment slope and level area in 1991. Black sandblast material was encountered near the surface of the hillside and east of Buildings 174, 98, and 110. Laboratory analyses confirmed the presence of elevated concentrations of lead and copper in the surface soil. The highest concentrations were found in soil collected from the level area. The level area was covered with plastic to limit windblown dispersion of the grit. A remedial investigation/feasibility study (RI/FS) was initiated to determine the appropriate approach for the final removal action.

Removal Action

This is a time-critical removal action involving interim tasks necessary to minimize further dispersion of the sandblast grit during the ongoing RI/FS process. Construction activities began on January 3, 1994, and will be completed by February 15, 1994. The interim removal action work plan has been reviewed and approved by the California Department of Toxic Substances Control (DTSC) and the California Regional Water Quality Control Board (RWQCB). The interim action consists of two tasks.

Task 1 - Hydroseeding

The goal of Task 1 is to stabilize the embankment slope through revegetation (hydroseeding) and installation of erosion control blankets. This will limit the dispersion of sandblast grit. The existing erosion-prone vegetation will be removed, and the broken irrigation system will be replaced.

Task 2 - Shotcrete

The goal of Task 2 is to prevent windblown dispersion of sandblast grit in the level area east of Buildings 174, 98, and 110. The area will be graded, and shotcrete, a cement-containing material, will be placed over the exposed sandblast grit.

Health and Safety During Construction

All site activities will be performed in compliance with a site-specific health and safety plan to provide for the safety of all on-site workers and the surrounding community. The appropriate level of protective clothing will be worn by all workers involved in the interim removal action. In addition, a health and safety officer will monitor site activities throughout the work.

Future Activities

This interim removal action is designed to stabilize the site and reduce any potential threats to human health and the environment. The ongoing RI/FS involves completion of soil borings and installation of groundwater monitoring wells to identify the vertical and horizontal extent of sandblast grit and its impact to groundwater. A detailed review of remedial alternatives will be conducted during the RI/FS, and the Navy will then select a final remedial action.

Community Involvement

The Navy encourages the public to share their comments and concerns at any time during this interim removal action (refer to cover page for the Navy contact). If community interest so warrants, additional fact sheets will be developed to address inquiries about the site and cleanup activities. Please complete the mailing list coupon if you would like to remain on the mailing list for the Site 11 activities (see last page of the fact sheet).

Glossary

DTSC	Department of Toxic Substances Control
PA/SI	Preliminary Assessment/Site Inspection
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
Removal Action	A short-term action taken to address a release or threatened release of hazardous substances
RI/FS	Remedial Investigation/Feasibility Study
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendment and Reauthorization Act of 1986

Other Information Sources

Copies of documents and related correspondence are on file and can be reviewed at the information repositories listed below.

Department of Toxic Substances Control
245 West Broadway, Suite 425
Long Beach, CA 90802
310/590-4949
Contact: Claire Best

Long Beach Public Library
101 Pacific Avenue
Long Beach, CA 90810
310/437-2949
Contact: Marilyn Brafher

Long Beach Naval Station Library
Building 398
Naval Station
Long Beach, CA 90822-5000
310/547-7349
Contact: Verna Mays

San Pedro Public Library
931 South Getty Street
San Pedro, CA 90731
310/548-7779
Contact: Laura Webber

Wilmington Public Library
1300 North Avalon Avenue
Wilmington, CA 90744
310/834-1082
Contact: Patricia L. Deutsch

Mailing List Coupon

If you would like to be on the permanent mailing list to receive future information about environmental cleanup activities at Site 11, please fill out this coupon and mail it to John Ryan, Public Affairs Officer, Code 1160, 300 Shipjack Road, Long Beach, California 90822-5099.

Name _____

Address _____

Telephone Number _____

Organization/Affiliation _____



INSTALLATION RESTORATION PROGRAM

REMOVAL ACTION

Long Beach Naval Shipyard, Site 12

FACT SHEET #3

JULY 1994

Introduction

The Navy is asphaltting an unpaved area of Site 12 on the Long Beach Naval Shipyard (LBNSY) (refer to figure below). Site 12 the site of a former drum crushing facility and a disposal area for sandblasting grit. The contaminants of concern are volatiles, semivolatiles and petroleum based products in the soils of the former drum crushing facility, and heavy metals in the sandblasting grit, including organotins. (See Glossary).

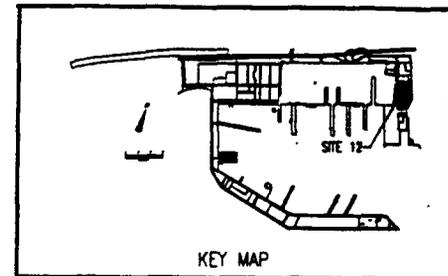
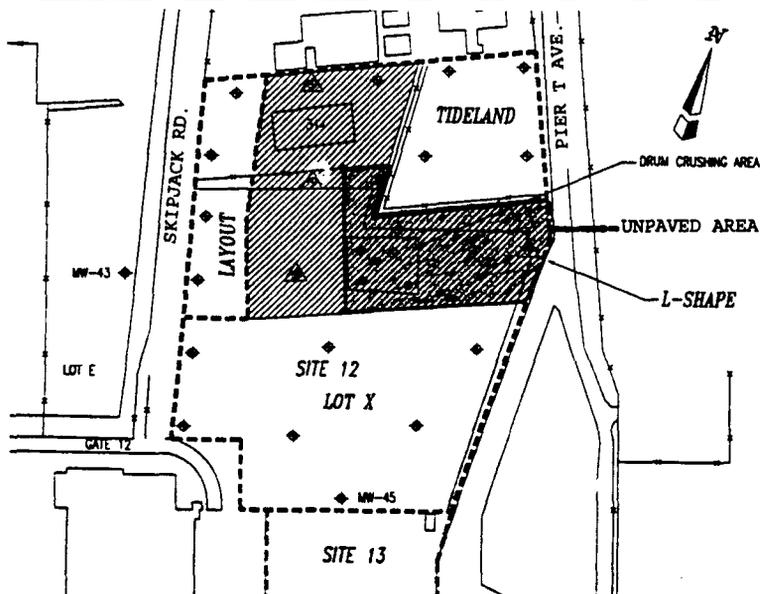
This interim removal action is being conducted under the Navy's Installation Restoration Program (IRP). The IRP was established under the Federal "Superfund" program (CERCLA and SARA) to address contamination and potential public health and environmental impacts resulting from past hazardous waste management and disposal practices. Through the IRP the Navy identifies, investigates and remediates contaminated sites to correct or prevent endangerment to human health and the environment, and

To Obtain More Information

This fact sheet is one of a series of information releases designed to inform the public about environmental cleanup activities at the Long Beach Naval Complex. The Navy welcomes your interest in this interim removal action. If you would like more information, or have questions or comments, please contact:

John Ryan - Code 1160
Public Affairs Officer
Long Beach Naval Shipyard
300 Skipjack Road
Long Beach, CA 90822-5099
(310) 547-7798

Claire Best
Public Participation Specialist
Dept. of Toxic Substances Control
245 W. Broadway, Suite 350
Long Beach, CA 90820-4444
(310) 590-4949



LEGEND:

- ◆ - PROPOSED WELL POINT LOCATION
- ▲ - PROPOSED WELL POINT LOCATION WITH ADDITIONAL SIOC ANALYSIS
- ◇ - EXISTING GROUNDWATER MONITORING WELL
- - PROPOSED SUBSURFACE SOIL SAMPLING LOCATION
- ▨ - APPROXIMATE EXTENT OF DISPOSAL AREA (BASED ON AIR PHOTOS)

Site 12, Long Beach Naval Shipyard

to maintain compliance with applicable Federal, State and local regulations. Site 12 removal action activities are being performed under a contract with Brown & Root.

GLOSSARY

DTSC	California Department of Toxic Substances Control	RI/FS	Remedial Investigation/ Feasibility Study
PA/SI	Preliminary Assessment/Site Inspection	RWQCB	Regional Water Quality Control Board
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act 1980	SARA	Superfund Amendment and Reauthorization Act of 1986
REMOVAL ACTION	A short-term action taken to address a release or threatened release of a hazardous substance	ORGANOTIN	A family of organic tin compounds. This family of tins includes tributyltins (TBT), which are manufactured for use in anti-fouling paint.
VOLATILE	The tendency of a substance to evaporate or volatilize rapidly at a given temperature, ie. Trichloroethane (TCE), a solvent used as a cleaner/degreaser.	SEMI-VOLATILE	The tendency of a substance to evaporate at a lesser rate than a volatile substance, ie. N-nitrosodiphenylamine, a soluble lubricant additive.

Site Description and Environmental History

Site 12 is located in Parking Lot X on LBNSY, east of Skipjack Road. Sandblasting grit containing tributyltin (TBT) paint chips was reportedly disposed between 1971 and 1975 at an unknown location in Lot X. The TBT containing grit was reportedly disposed in a 15x15x10 foot area. Based on the results of an aerial photographic review, a distinct pit was not identified; however, a "L" shaped depositional area of sandblasting grit was noted. The grit can be seen on the surface in the northern and eastern edges of the site. In addition, empty drums which contained hazardous material were crushed in a fenced area in Lot X. The previous contents of the drums included epoxy-based paints, solvents used for degreasing and paint removal, lube oils and other petroleum based products.

Previous Investigations

Under the IRP the Navy performed a Preliminary Assessment/Site Inspection (PA/SI) of the drum crushing area of Site 12. Previous investigations have detected the presence of organics (compounds containing carbon, ie. petroleum products) and metals in the soil in this area. Borings were conducted in the northwest and southwest corners of Lot X to sample soils where the TBT contaminated sandblasting grit was reportedly deposited. No organotins were found at a concentration above detection limits.

Removal Action

This is a removal action involving interim tasks necessary to minimize the migration of contaminated soils from the drum crushing area via storm water runoff and the possible air dispersion of surface sandblasting grit. Construction activities commenced July 5, 1994 and will be completed October 3, 1994. The interim removal action has been reviewed and approved by the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) and the California Regional Water Quality Control Board (RWQCB), Los Angeles Region. The interim action consists of minimal grading and fill, if necessary, and asphaltting of the unpaved area of Site 12.

Health and Safety During Construction

All site activities will be performed in compliance with a site-specific health and safety plan to provide for the safety of all on-site workers and individuals in the surrounding areas. The appropriate level of protective clothing will be worn by all workers involved in the interim removal action. In addition, a health and safety officer will monitor site activities throughout the project.

Future Activities

This interim removal action is designed to provide a protective covering for the site to prevent migration of contaminants and to reduce potential threats to human health and the environment. Future RI/FS activities at the site will include the completion of soil borings and groundwater sampling of the drum crushing area, shallow groundwater samples of the "L" shaped area of concern identified during the photographic review of the site, and perimeter well points.

The intent of ongoing RI activities is to identify the potential vertical and horizontal extent of possible contamination, and its impact to groundwater. The results of the RI will be used to develop a FS, which will evaluate cleanup options. From this study a proposed plan will be prepared, and reviewed by the regulatory agencies and the public prior to the selection of the remedy. The public's review process will include a public meeting and 30 day public comment period. The final remedy selected will incorporate appropriate community concerns.

Community Involvement

The Navy encourages the public to share their comments and concerns at any time during this interim removal action. Please refer to the cover page for the Navy Point of Contact (POC). If the community interest so warrants, additional fact sheets will be developed to address inquiries about the site and removal activities.

Other Information Sources

Copies of documents and related correspondence are on file and can be reviewed at the locations listed below:

Long Beach Public Library
101 Pacific Avenue
Long Beach, CA 90810
(310) 570-7500

Long Beach Naval Station Library
Building 398
Long Beach, CA 90822-5000
(310) 547-7349

MAILING LIST COUPON

If you would like to be on the permanent mailing list to receive future information about environmental cleanup activities at the Long Beach Naval Complex, please fill out this coupon and mail it to:

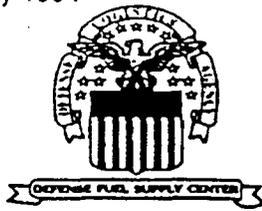
John Ryan
Public Affairs Officer
Long Beach Naval Shipyard, Code 1160
300 Skipjack Road
Long Beach CA, 90822-5099

Name

Address

Phone Number

**Organization/
Affiliation
(Optional)**



Defense Fuel Support Point



SAN PEDRO, CALIFORNIA

REMOVAL ACTION SITE EVALUATION BEGINS

This fact sheet is one of a series written to keep you updated on environmental cleanup activities at the Defense Fuel Support Point, San Pedro Facility (San Pedro Facility). It includes the results of site investigations and tells how cleanup at the facility is being accelerated through the Removal Action process.

Future fact sheets will provide more information on the cleanup work, proposed cleanup alternatives and upcoming public participation activities.

Environmental protection work at the San Pedro Facility is being done through the Department of Defense's Installation Restoration Program (IR Program) which is equivalent to the "Superfund" process used by the U.S.

Environmental Protection Agency. The goals of the IR Program are to identify, investigate and remediate abandoned or inactive waste disposal sites.

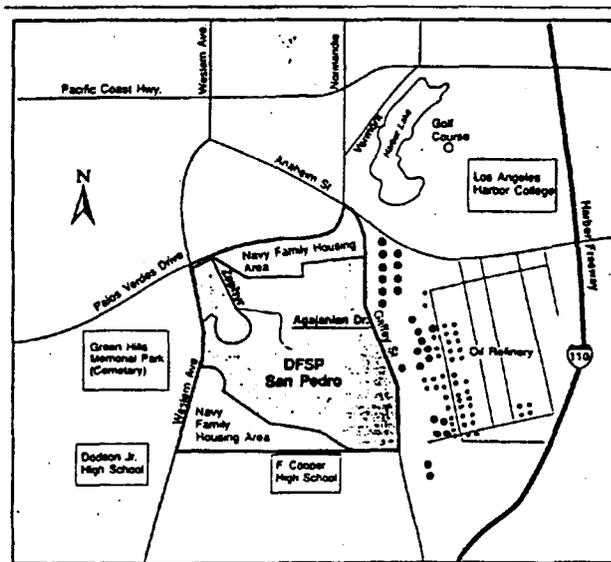


Figure 1

INTRODUCTION

The San Pedro Facility includes the Defense Fuel Support Point San Pedro (DFSP) and the Palos Verdes and San Pedro Navy Family Housing areas (see Fig. 1). The Navy and the Defense Fuel Region-West (DFR-W) have been conducting an environmental assessment of these properties that will lead to the cleanup of potentially hazardous waste sites that are located on these properties. To date, eight CERCLA sites have been identified and investigated. The results of these site investigations are summarized in this fact sheet (see Investigation Results).

The Navy manages and is responsible for remediating the housing properties while the DFR-W operates the DFSP and is responsible for its remediation. Next to the DFSP is a third Navy family housing property (Taper Avenue) which is a part of the Military Base Closure Program.

COMMUNITY INVOLVEMENT

Community participation is a very important part of the environmental program at the San Pedro Facility. A Community Relations Program has been developed that is designed to keep the public informed of environmental cleanup activities at the facility and to provide interested community members the opportunity to participate in the decision-making processes. The Community Relations Plan includes the following public participation and information activities:

Information Repositories have been established at the San Pedro Public Library and at the Naval Station Long Beach Library to provide public access to technical documents and information that relates to the environmental work being performed. Copies of the community relations plan are in the repositories.

Administrative Record files that include the documents that are used to select the

response actions at each site will be kept at the San Pedro Public Library, the Naval Station Long Beach Library and the Naval Facilities Engineering Command, Southwest Division, San Diego, California.

Fact Sheets like this one will provide periodic updates on the environmental work being done at the San Pedro Facility.

Door-to-Door Notices that announce field work and schedules are distributed in special cases to residents that live adjacent to the work.

Press Releases are distributed to the local media to announce upcoming public and Restoration Advisory Board (RAB) meetings and to provide updates on the cleanup process.

Public Meetings are held in conjunction with Restoration Advisory Board meetings, at the conclusion of the Removal Site Evaluation process and as needed.

Public Comment Periods will be conducted at critical points in the decision making process. A minimum of 30 days is allocated for the public to submit written comment on the proposed plan. At the conclusion of the comment period a Responsiveness Summary will be prepared and accompany the final decision document.

Restoration Advisory Board (RAB) will replace the Technical Review Committee that was established in 1990 as part of the Installation Restoration Program for the San Pedro Facility. In 1993, the Department of Defense issued guidance to increase public participation in the cleanup of government facilities with the creation of RABs.

**FOR MORE INFORMATION SEE:
RAB FACTS - BACK PAGE**

LOCATION AND BACKGROUND

DFSP SAN PEDRO

The DFSP is located west of Long Beach and covers 331 acres. Since 1943, it has been used to receive, store and distribute diesel and jet fuels for military use in California, Arizona and Nevada. In 1980, the Defense Fuel Supply Center branch of the Defense Logistics Agency assumed operations from the Navy. The DFSP currently utilizes 41 tanks to store various fuels and waste oil. Thirty four of these storage tanks are underground and seven are aboveground. All the tanks and their piping are regularly inspected.

Site Investigations have been completed that describe contamination at four sites on the DFSP. These have been designated Sites 3A, 3B, 4 and 6 (see Enclosure, Figure 2).

NAVY FAMILY HOUSING AREAS

The Navy maintains three properties that are next to the DFSP. This land was deeded to the Department of Defense by the City of Los Angeles in 1942.

The Palos Verdes Navy Family Housing area consists of 300 housing units that were built on 59 acres of land just north of the DFSP. Investigations have identified three contaminated sites (Sites 1A, 1B and 2) on this property (see Figure 2).

The San Pedro Navy Family Housing area consists of 245 housing units and is located on 62 acres immediately to the southwest of the DFSP. Site 5 is next to the San Pedro housing area (see Figure 2).

INSTALLATION RESTORATION PROGRAM

As previously stated, cleanup at the San Pedro Facility is being conducted through the IR Program. Two Congressional acts, the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA), outline the ways that under Superfund hazardous waste sites are to be cleaned up. The IR Program follows those guidelines.

Public Participation and consultations with the project's lead agencies factor into each step in the process and will determine the over-all remediation strategy for the San Pedro Facility.

PROGRAM ACCOMPLISHMENTS SAN PEDRO FACILITY

Preliminary Assessment (1990) - Existing reports and photographs were used to identify seven potentially contaminated sites. An eighth site was added to the seven after field investigations.

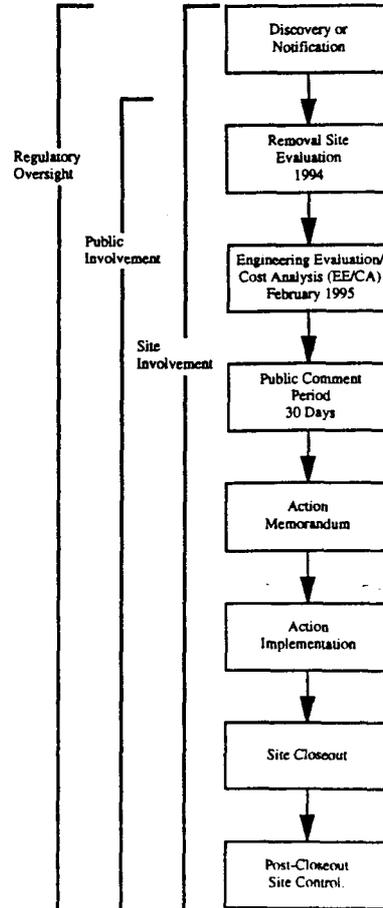
Site Inspection (1992) - Soil at the sites was tested to determine if it was contaminated and if the contamination could potentially impact either human health or the environment. These soil tests identified the contaminants that will need to be cleaned up.

Site Inspection Report (1993) - Removal Actions are recommended for Navy and DFSP sites. This will reduce the amount of time spent investigating sites and allow for cleanup to proceed.

Removal Site Evaluation Workplan (1994) Approved by the project's lead agencies, it outlines the work that is needed to decide what types of removal actions may be proposed for Navy property sites (Sites 1A, 1B, 2, and 5). This field work has started.

REMOVAL ACTION PROCESS

A QUICKER WAY TO REMEDIATE SITES



INVESTIGATION RESULTS

DFSP SAN PEDRO

Central Ravine (Site 3A)

Construction demolition debris including concrete, asphalt and steel was deposited with fill dirt in the early 1970s. Metals, total petroleum hydrocarbons, semi-volatile organic compounds and PCBs have been housed identified as the potential chemicals of concern. The site is currently being tested to determine the types of remediation options that are best for it. The results of these tests will be available in 1994. Access to the site is restricted and groundwater is estimated to be deeper than 100 feet so there is no apparent immediate risk from contamination to either human health or to the environment.

Southeast Ravine (Site 3B)

In the early 1970s, construction debris was deposited in the ravine. In 1979, one of the facility's underground storage tanks released fuel into it. Metals, total petroleum hydrocarbons, semi-volatile organic compounds, PCBs and organic lead have been identified as the potential chemicals of concern. More testing is planned to determine the best remediation options. There is no apparent immediate risk to the environment and because access to the site is restricted there is none to humans as well.

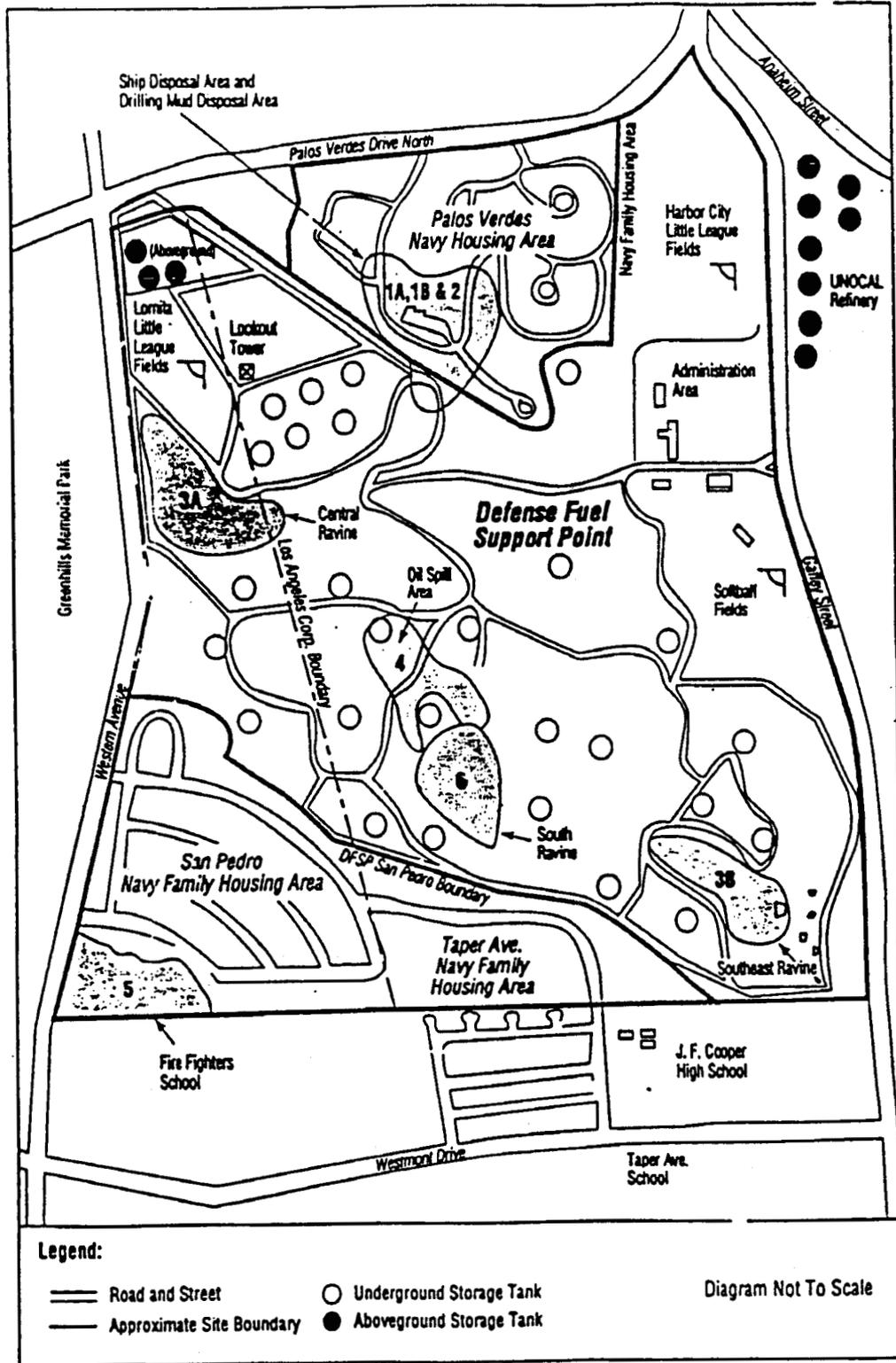
Oil Spill (Site 4)

In 1954, approximately 147,000 gallons of fuel oil spilled from Tank 5. In the early 1960s another release of the same grade fuel oil occurred. The amount of oil that spilled ranged from 4,200 to 21,00 gallons. Little of the fuel from either spill was recovered. The site is estimated to cover approximately three acres. Ongoing tests and monitoring are being conducted in select areas at the spill site.

South Ravine (Site 6)

Specific waste disposal practices at this site are unknown. Visible debris includes residential and construction debris such as 1- and 5-gallon cans, tires, pipe, concrete and furniture. The ravine may also have been contaminated by the fuel spills from Site 4. Semi-volatile organic compounds, organic lead and total petroleum hydrocarbons have been identified as the potential chemicals of concern. This site also has limited access, so the apparent immediate risk to human health or to the environment is little to none. Better

San Pedro Facility



GLOSSARY

Arsenic - an element used in insecticides that reacts easily with moist air.

Carbon - an element in all living organisms. Coal, oil, natural gas and diamonds are primarily made of carbon.

Cleanup - broadly used to describe different types of RESPONSE ACTIONS that deal with hazardous substances.

Exposure - contact between a substance and an animal or plant. Exposure does not imply that the substance is absorbed or that it will produce an effect.

Hazardous Waste - any solid waste listed as hazardous under the RESOURCE CONSERVATION AND RECOVERY ACT, or that according to specific tests poses a significant threat because it is toxic, ignitable, corrosive or reactive

Heavy Metals - metallic elements with like lead, mercury, arsenic, cadmium, chromium and zinc. Chronic exposure to heavy concentrations is associated with adverse health effects.

Hydrocarbons - chemical compounds that primarily contain carbon and hydrogen.

Lead - a toxic metal found in air, food, water soil, and old paint. It is regulated in the CLEAN AIR ACT, CLEAN WATER ACT, SAFE DRINKING WATER ACT and others.

Mitigation - actions to lessen an adverse impact on the environment.

Monitoring - sampling and analysis of air, water and soil to determine the concentration of contaminants in it.

Monitoring Well - a well drilled near waste to keep track of leakage.

Organic - a substance that contains CARBON atoms. All living matter is organic.

Petroleum - a liquid fuel that is made up of various HYDROCARBONS. It is found naturally in the ground and is refined to produce gasoline, fuel oil, kerosene and asphalt.

Pollution - the addition of one or more chemicals to the air water or land in an amount or at a location that threatens human health or well-being.

Polychlorinated biphenyl (PCB) - in the past were used in electrical transformers and to manufacture waxes, paper and ink and are widely distributed in the environment.

Radium - a white, radioactive metallic element used in radiation therapy and as a constituent in luminescent paints.

Remedial Action - taken to prevent or minimize the release of a hazardous substance into the environment. The need for remedial action is determined on the basis of potential harm to human health that could result from 1) releases into the air, groundwater or surface water, 2) direct contact; or 3) fire or explosion.

Removal Action - removes the threat of potential harm from a contaminant. Does not imply physically removing the contaminant.

Removal Site Evaluation (RSE) - used at sites that need little additional sampling to evaluate for removal action.

Resource Conservation and Recovery Act (RCRA) - provides for the management of nonhazardous and hazardous solid wastes. The EPA implements it by setting minimum standards for hazardous waste, disposal facilities, treatment, storage and transfer.

Response Action - either a REMOVAL ACTION or a REMEDIAL ACTION that may include removing hazardous materials; containing the waste safely on-site to eliminate further problems; destroying or treating the waste on-site; or removing the source of groundwater contamination and preventing the movement of contaminants.

Sludge - a general term for waste products with the consistency of soft mud.

Volatile Organic Compound (VOC) - a major category of air contaminants. Most are hydrocarbons like the unburned hydrocarbon compounds emitted from automobiles or industries. Others are organic solvents that evaporate from cleaning and painting activities.

Volatilization - the process of evaporation.

Water Table - the uppermost level at which the ground is saturated with water.

NAME: _____

ADDRESS: _____

CITY/ZIP: _____

If you did not receive this fact sheet in the mail, then you are not on our mailing list. If you want to be placed on this mailing list to receive fact sheets and future information on public meetings and the RAB, please fill-out and return this coupon to:

Lieutenant Karl Johnson
Public Affairs Officer
Naval Station Long Beach
Long Beach, CA 90822

characterization of the site is planned to determine what remediation alternatives are applicable to the site.

PALOS VERDES NAVY FAMILY HOUSING AREA

Ship Disposal Areas (Sites 1A and 1B)

Unspecified amounts of waste materials from ships returning from World War II were disposed in former ravines at Sites 1A and 1B. This waste may have included paints, solvents, scrap metal, cables, gas masks and metal drums. Disposal continued from 1947 to 1949. Radium dials were reportedly used on ships at that time and may have been a part of the waste. Surveys to determine if radium is present are currently being conducted.

The materials at Site 1A were subsequently covered with from 15 to 20 feet of soil. This covering of soil minimizes any potential risk to human health or to the environment.

Underneath the cover, heavy petroleum hydrocarbons were identified as the potential chemicals for cleanup. Further investigations have determined that there are also elevated levels of total petroleum hydrocarbons and arsenic.

A Removal Action is recommended for this site. Testing is currently being done that will help determine the remediation method that is most appropriate for the site. These tests will be completed this year and recommendations will be presented to the public and all participating agencies early in 1995.

During Navy housing construction, approximately 2,000 to 3,000 cubic yards of material were removed from Site 1A and re-deposited in a ravine next to it (Site 1B). Site 1B covers approximately 2.5 square acres and may be overlapped by Site 2. Heavy metals, arsenic and heavy petroleum hydrocarbons were identified as the potential chemicals of concern at the site. A Removal Action is recommended for this site so tests are currently being conducted to identify the types of remediation methods that will be best for it. As with site 1A the results of these tests will be available this year.

Drilling Mud Disposal Area (Site 2)

During the 1950s oil exploration drilling muds and fuel sludge wastes were deposited in these ravines. It is not known how much of these materials were deposited or for how long. Grading may have mixed materials from Sites 1A and 1B into the area of Site 2.

Beneath a soil cover, metals, arsenic, volatile and semi-volatile organic compounds and heavy petroleum hydrocarbons were identified as the potential chemicals of concern at the site. Removal Action is also planned for this site and tests are currently being done to determine appropriate ways to remediate it. The results will be available this year.

SAN PEDRO NAVY FAMILY HOUSING AREA

Fire Fighters School (Site 5)

This site covers eight acres of open fields to the southwest of the San Pedro housing area. It was the site of a school that operated from 1944 to 1950 to train fire fighters and it was not used for waste disposal. Activities related to fire fighting training may have contributed to the release of contaminants in the area. Heavy metals, heavy petroleum hydrocarbons and semi-volatile organic hydrocarbons were identified as the potential chemicals of concern. Removal Action is planned for this site. Current testing will determine the types of remediation procedures that are best for the site and those will be available this year.

TAPER AVENUE NAVY FAMILY HOUSING AREA

This property is next to the southern fence line of the DFSP. It is scheduled for closure in September 1994 under the Defense Base Closure and Realignment Act. The Los Angeles Regional Water Quality Control Board has asked that sampling be done to determine if chemicals from old fuel spills on the DFSP could have migrated off-site to the Taper Avenue property. These tests are currently underway and the results will be available in September.

HEALTH AND SAFETY

The Installation Restoration Program's Health and Safety Plan includes procedures that are designed to protect the health and personal safety of the public and of workers. The plan has guidelines for personal protection, personnel and equipment safety, medical assistance and for general work practices. The plan also outlines methods to ensure that workers will have been trained in the proper safety procedures for the work they will be doing and that they will be wearing protective clothing that is appropriate for that work. To ensure public safety at job sites, exclusion zones that are marked "Please Do Not Enter - For Workers Only" are posted. Field activities are monitored at all times to ensure that there are no hazards to local residents or the general public.

AGENCY COORDINATION AND OVERSIGHT

The IR effort at the San Pedro Facility involves a cooperative effort between the public and among various government agencies. The following agencies are currently working together on the IR Program at the San Pedro Facility.

Southwest Division (SWDIV), Naval Facilities Engineering Command - is the lead federal agency responsible for managing and coordinating the IR Program site investigation and cleanup for the San Pedro Facility.

Department of Navy (DON) - has the overall responsibility for the Installation Restoration Program at the San Pedro Facility.

California Environmental Protection Agency (CalEPA), Department of Toxic Substances Control (DTSC) - provides oversight as lead state agency for all IR Programs at the San Pedro Facility. This is the lead state agency responsible for reviewing and approving all proposed work plans and overseeing the investigation and cleanup. It is also the lead state agency responsible for Public Participation oversight.

Los Angeles Regional Water Quality Control Board (LARWQCB) - provides oversight of project work that relates to water quality.

FOR MORE INFORMATION

Information Repositories

San Pedro Public Library
931 S. Gaffey Street, San Pedro
Tel: 310 548-7779

Naval Station Long Beach Library
Naval Station Long Beach, Building 398
Tel: 310 547-7349

Questions or comments

Lieutenant Karl Johnson, Public Affairs Officer
Naval Station Long Beach
Long Beach, CA 90822
Tel: 310 547-7219
Fax: 310 519-0366

Claire Best, Public Participation Specialist
Dept. of Toxic Substances Control
245 W. Broadway, Suite 350
Long Beach, CA 90822-4444
Tel: 310 590-4949
Fax: 310 590-4932

RESTORATION ADVISORY BOARD (RAB) FACTS

Environmental cleanups are being conducted at federal facilities in communities throughout the United States. Some of these facilities, like several of the Naval Station Long Beach properties, will be closing. Other facilities, like the DFSP, will continue to operate. The environment cleanups at these facilities can be technically challenging, but equally as challenging are the ways that the decisions for these cleanups are made.

In the past, cleanup decisions were often made without including input from all parties with a stake in the cleanup. But the decision-making process has been changing. The Department of Defense and the Navy have issued guidelines that provide for ways to bring all stakeholders into the decision making process as early as possible and in a way that will provide for safe, efficient and cost effective cleanups. These guidelines direct that Restoration Advisory Boards (RABs) be established to increase public participation at facilities where environmental cleanups are currently underway or planned.

WHAT IS A RAB?

A RAB is a group of individuals that gives advice on the cleanup process at a specific facility. The RAB does this by bringing the concerns of the local community to the board, by reviewing and commenting on actions and proposed actions that pertain to the facility's cleanup and by providing the community with information on the cleanup.

WHAT IS THE PURPOSE OF A RAB?

A RAB is to act as a forum to discuss and exchange information between the community,

the agencies responsible for the cleanup and the regulatory agencies. The RAB does not function as a decision making body; however, it will review and comment on proposed cleanup actions. It will expand the existing Technical Review Committee concept by providing a more complete forum for discussing cleanup issues.

WHAT ARE THE RESPONSIBILITIES OF A RAB?

- RABS must hold regularly scheduled meetings that are also open to the public. These meetings must be held at a location that is centrally located and convenient to the community. Since the meetings are open to the public they should be scheduled at times when the greatest number of community members can attend.
- The minutes from each RAB meeting must be recorded and mailed to interested community members and published in a local newspaper.
- The RAB will develop and use a mailing list of interested community members who wish to receive information on the cleanup program.
- The RAB provides a forum for individual members to give advice and make recommendations on environmental cleanup issues at the RAB's facility.
- The RAB establishes a procedure for responding to questions and comments at public meetings.

WHO CAN BECOME A MEMBER?

- Membership in the San Pedro Facility RAB is open to interested community members.

- Each member must be available to serve in a voluntary capacity on the board for two years.
- Each member will be expected to review project documents, identify project requirements and recommend priorities.
- All backgrounds are needed. No technical experience is required.

HOW CAN YOU BECOME A RAB MEMBER?

- Fill out an application.
- Fax or mail it as indicated.
- The deadline to submit applications is August 31, 1994.

If you need an application or have general questions, write or call:

Lieutenant Karl Johnson
Public Affairs Officer
Naval Station Long Beach
Long Beach, CA 90822
Tel: 310 547-7219
FAX: 310 519-0366

or

Claire Best
Public Participation Specialist
Department of Toxic Substances
Control
245 W. Broadway, Suite 425
Long Beach, CA 90802
Tel: 310 590-4949
FAX: 310 590-4932



6/22/95

MEMORANDUM

To: ADM BEN MONTOYA - BRAC

From: ADM PETE HEKMAN

Date: 6/22/95

Subject: ENVIRONMENTAL INFO

BEN,

THIS SHOULD ADD TO WHAT I HAD DELIVERED TO YOU THIS MORNING. (YOU CHANGED HOTELS ON ME - COULDN'T FIND YOU LAST NIGHT!) I HOPE YOU RECEIVED THE EIS DATA.

JUST HEARD McLELLAN IS TO CLOSE, AND SOME LABS STAY OPEN "DUE TO BAD DATA". BIG JOBBS ISSUE IN CA, RE LONG BEACH NOW, BUT I STILL HANG MY ARGUMENTS ON MILITARY VALUE AND ZERO COST SAVINGS.

GOD BLESS,
PETE

Neighborly LA Solves Dredge Dilemma For Long Beach

By **BILL MONGELLUZZO**

Journal of Commerce Staff

LONG BEACH, Calif. — While ports such as New York-New Jersey and Oakland are spending millions of dollars to dispose of dredge material, the Port of Long Beach plans to give 2 million cubic yards of the stuff to the Port of Los Angeles.

Los Angeles is being such a good neighbor, in fact, that it will even pay the transportation costs involved in moving the material across San Pedro Bay.

This is not a case of a sucker being born every minute. Los Angeles is building a 200-acre landfill at Pier 400, and needs good-quality material for the project.

"Our dredge material is clean," said Geraldine Knatz, director of planning at the Port of Long Beach, after she won approval for the dredge donation from the Long Beach Harbor Commission Monday.

Long Beach will have to dispose of the dredge material anyway. Richard Wittkop, director of the 2020 program in Los Angeles, said there is a small deficit of material for the Pier 400 landfill, so the 2 million cubic yards will come in handy.

The federal government has agreed to help Long Beach pay for its dredging project, but only for the cheapest disposal option available. Mr. Wittkop said if there is an added cost involved in moving the material to Los Angeles, that port will pay the difference.

Long Beach will deepen its approach channel at Queen's Gate to 76 feet from 60 feet. The main channel from Queen's Gate to the oil terminal at Berth 121 already has been deepened to 76 feet.

According to the Army Corps of Engineers, the deeper approach channel is needed to accommodate the increasingly large oil tankers calling Long Beach. Tankers up to 252,000 deadweight tons are calling now, but they cannot enter fully loaded.

Also, most of the crude oil comes from Alaska. As more oil is imported from distant locations in the Far East and Middle East, larger tankers will be calling Long Beach.

Long Beach may end up dredging its approach channel virtually free of charge. J. Gordon Palmer, manager of master planning, said that when Long Beach dredged its main channel to 76 feet, it paid the total cost up-front rather than waiting for the federal government to pay its share of the project.

Now that the main channel work has been authorized, the port hopes to use its payment for that project as a credit against the cost of dredging the approach channel.

JOC 6/21/95

FRIDAY, March 3, 1995

LOS ANGELES TIMES (WASH. ED.)

March 3, 1995

Pg. B1

Navy Plan Hits Rough Waters

Environment: Service's suggestion it might dredge San Diego Bay and bury toxic waste there draws protests.

By MICHAEL GRANBERRY/
TIMES STAFF WRITER

SAN DIEGO—In an effort to accommodate up to three nuclear-powered aircraft carriers as part of its "Homeporting" project, the U.S. Navy is formulating plans for a massive dredging of San Diego Bay that may include digging a hole in the floor of the bay for burying contaminated soils laced with heavy metals, oils and PCBs, officials disclosed Thursday.

Environmentalists have reacted with alarm to the dredging plan alone—much less its toxic side effects.

If approved, the plan would mark the first time anywhere in the country that the Navy has disposed of such toxic material by storing it in massive quantities in one underwater site, said Dan Muslin, head of environmental planning for the Navy in its San Diego sector.

Muslin said the controversial disposal aspect of the plan is very preliminary. "But we have been looking at alternative disposal methods," he said.

Mark Delaplaine, federal consistency supervisor with the California Coastal Commission in San Francisco, said the Navy has consistently broached the disposal plan during its meetings with the agency.

"It keeps coming up as an option under study," Delaplaine said. "It doesn't mean they're going to do it, but they are informing the various agencies that this is an idea they wish to explore."

Navy officials expressed concern Thursday about potential risks to the California least tern, migratory waterfowl and eelgrass. Environmentalists, meanwhile, reacted in decided stronger terms.

"I'm appalled at the idea," said Robert Simmons, an attorney who represents the Sierra Club in its federal lawsuit against the city of San Diego over sewage treatment. "We start with the bay waters as they presently stand. They've been identified by several investigative commissions as the most contaminated bay waters connected with coastal waters on either coast. [San Diego Bay] is like an old sump that's never been cleaned out."

"The idea of potentially adding to those conditions by directly placing God knows what quantities of toxic, hazardous wastes... Well, it's utterly unthinkable."

But Muslin said the plan is necessary to accommodate a much larger fleet of Navy ships—including the three carriers—that may be deployed in San Diego as part of the Homeporting concept of military downsizing and consolidating.

Pending a federal environmental impact statement that should be finished by the end of the year, the Navy will definitely deploy at least one Nimitz-class nuclear carrier in San Diego by 1997. Capt. Mark Neuhart, a Navy spokesman, said

Thursday.

Two conventionally powered aircraft carriers, the Kittyhawk and the Constellation, are currently moored here; the nuclear-powered carrier would be the first of its kind in San Diego. But pier construction to accommodate three such carriers is already under way at the North Island Naval Air Station on the Coronado peninsula, which forms the geographical centerpiece to the bay itself.

To accommodate the ships, the Navy would need to dredge the outer main channel of the bay to a depth of 55 feet, the inner channel to 47 feet and the turning basin just north of the San Diego-Coronado Bay Bridge to a depth of 30 feet, Neuhart said. All are presently 45 feet deep, which is too shallow for Nimitz-class carriers.

The dredging would begin in 1996 and would cost \$70 million—the funds already have been earmarked by Congress—and would generate what Neuhart called up to 12 million cubic yards of "dredge material." About 11 million cubic yards—said to be uncontaminated—would be redi-

tributed on area beaches, which have suffered significant sand erosion.

But at least 1 million cubic yards is thought to be laden with hazardous and contaminated materials that the U.S. Environmental Protection Agency prohibits anyone from dumping in the open sea, Neuhart said. The need to dispose of such sediment, is the reason Navy officials are talking of burying and "capping" such waste at an undisclosed site in the bay itself.

Environmentalists have lobbied for years to have tons of toxic sediment removed from the bay, which they contend has elevated counts of mercury, lead and other heavy metals.

"Underwater is exactly the wrong place to be putting that crap," said Laura Hunter, director of the Clean Bay Campaign of the Environmental Health Coalition of San Diego. "We are not in support of developing an underwater, in-bay, hazardous-waste landfill and would have serious concerns about that kind of proposal. I try not to have a reaction until I've seen all the facts, but I can't imagine how

they could do that in a way that would be environmentally benign to the bay.

"To dredge it up means a lot of disturbance and re-suspension in the water. Then you have who knows how much accuracy in getting it in the hole. The cap may or may not last long enough, in which case you end up with a far more frightening problem than you ever had in the first place."

In a worst-case scenario, fish from the bay just couldn't be eaten—ever," Hunter said, noting that the risk of such a procedure would be in "taking that stuff from one place and dumping it in a second place. That gives it a second opportunity to enter the water column and contaminate the food chain. So, in effect, you're doubling the recontamination by digging up the pollutants and putting them back in."

Although a formal proposal has yet to be made, Delaplaine said that, at first glance, coastal authorities also have environmental concerns.

"If you're a regulatory agency,

DREDGE...

Pg. 16

BALTIMORE SUN

March 3, 1995

Pg. 12

Cost of destroying chemical weapons underestimated, report says

Disposal of Army stockpiles could run up to \$11.4 billion

By Bruce Held
Sun Staff Writer

Congressional investigators say the Army is underestimating the cost of destroying its chemical weapons stockpiles at Aberdeen Proving Ground and seven other U.S. sites.

In a report made public yesterday by a nationwide citizens group with members in Maryland and elsewhere, the U.S. General Accounting Office (GAO) said the program could cost taxpayers nearly \$11.4 billion — nearly a sevenfold increase over the original estimate of \$1.7 billion.

Two members of Congress, Democratic Rep. Glen Roegner of Alabama and Republican Rep. James V. Hansen of Utah, also have intro-

duced legislation requiring a strict financial review of the Army's Chemical Stockpile Emergency Preparedness Program, saying that there is little to show for the \$200 million spent so far to protect communities near the stockpiles.

The disposal effort and the emergency program are run by an Army agency at Aberdeen.

The citizens group, which is fighting the Army's plan to build huge incinerators to destroy the weapons, said the GAO report documents the "runaway spending" of the disposal program.

"It's time to abandon incineration and get on with developing safer, Army can operate six U.S. incinerators more cost-effective alternatives," said Craig Williams of the Chemical

Weapons Working Group.

The Army is operating a prototype incinerator on a remote Pacific island, and the first mainland incinerator is to start operation in September. Meanwhile, Army researchers at Aberdeen are studying chemical and biological means of destroying the stockpiles.

An Army spokeswoman acknowledged that the service is still learning the true cost of its chemical weapons disposal program.

Spokeswoman Marilyn Tischbirt said the Army does not expect to find a cheaper way of destroying the stockpiles. And she said it is still a "reasonable assumption" that the Army can operate six U.S. incinerators, including one at Aberdeen, simultaneously.

WASHINGTON TIMES

March 3, 1995

Pg. 2

ROTC law

Yesterday Rep. Richard Pombo, California Republican, introduced the "ROTC Campus Access Act," which addresses complaints of unfair treatment of ROTC cadets on college campuses.

This act would "prohibit any

federal grant or contract from being awarded to any institution of higher education that does not allow the Secretary of Defense to maintain or establish Senior Reserve Officer Training Corps (ROTC) units at that institution."

Young America's Foundation, a conservative campus group, is thrilled about the proposed act.

Commenting on the bill, ROTC cadet and Young America's Foundation activist Flagg Youngblood explained, "No longer can America's colleges and universities greedily take the federal government's money with one hand and then protest its policies by shipping ROTC cadets around with the other."

FRIDAY, March 3, 1995

DREDGE...from Pg. 4

naturally you're nervous about it," he said. "We'd want to see a lot of facts before we even considered it. It's hard to say how we'd feel before our commission sees it, but we're always concerned about contaminated materials."

Hunter said that San Diego Bay has the highest level of a series of banned chemicals known as polychlorinated biphenyls, or PCBs, of any West Coast waterway.

Testing of San Diego Bay already reveals elevated counts of PCBs and mercury, she said, calling them "biocumulative, which means they readily enter the food chain. PCBs alone have a half-life of 250 years, meaning that, in 250 years, they'll only be half as toxic as they are at the moment."

In California, such materials can only be dumped in Class I or Class 2 landfills, such as those found at toxic-waste disposal sites, Delaplaine said. But Navy officials said it would be too expensive to transport such materials to a landfill.

Muslin said the Navy would be following the lead of other agencies, which have been dumping and then capping contaminated wastes under Puget Sound near Seattle and in areas of the East Coast for years "without a problem."

But Ken Moser, who directs the San Diego Baykeeper, part of a national alliance of river, sound and bay protective groups, and who formerly worked with the Puget Sound group, said that in the Pacific Northwest, capped dumping has more closely resembled an environmental quagmire.

"The precedent for it is in Puget Sound, on Elliott Bay," Moser said. "Years ago, the [U.S.] Army Corps of Engineers began dredging toxic sediment from the mouth of the Duwamish River. They dug a hole in the deepest place on the bottom

of the river and filled it with contaminated sediment.

"They then took several feet of clean material and put it on top, the theory being the toxic material would never escape. But what they failed to reckon or predict is that what they had there—obviously—was a wet environment. So, the toxic stuff leaked into the shellfish beds off Magnolia Bluffs on the north side of Elliott Bay," an island of Puget Sound.

"What happened was disastrous," Moser said. "Along some of the most desirable waterfront property in Seattle, people can no longer harvest shellfish...."

"You're essentially sweeping under the rug all sorts of toxic materials, and you don't know if the rug is going to hold."

The cap is usually between three and 10 feet thick and consists of sand or a mixture of sand and gravel, he said, noting that "the integrity of the cap" must be "rigorously maintained."

To win approval for the project, the Navy would have to complete the federal environmental impact statement or EIS, then obtain permission from, among other agencies, the Corps of Engineers, the Coastal Commission, the EPA and the U.S. Fish and Wildlife Service, said David Zoutendyk, a biologist with the regulatory division of the U.S. Army Corps of Engineers in San Diego.

"The burden on them is to convince reviewers and the public that it's safe," said Delaplaine of the Coastal Commission said. "They won't be able to do that without a lot of studies. They also have to weigh the public-relations concern of being a good neighbor to everybody in San Diego."

MASS...from Pg. 15

John F. Kerry had made a strong case for retaining the South Weymouth installation. He said he was sympathetic but the Navy could only afford one airfield north of Norfolk, Va.

"In order to have the funds for recapitalization to buy the new ships and aircraft needed for the future and take care of our people now, tough decisions need to be made. It's a tough process," he said.

He said he would encourage the community to develop a plan for another use for the facility.

"The good news is that this process is positive for the American taxpayer and the Navy," Dalton said. "The Navy will save almost \$9 billion over the next two decades."

CHRIS BLACK

At Presstime

U.S. Marines leave Somalia

By Aiden Hartley

MOGADISHU, March 3 (Reuters) - U.S. forces fired heavy bursts of gunfire and lit up the night sky with flares early on Friday as they abandoned Mogadishu's beaches at the end of two years of bloody foreign military intervention in Somalia.

Marines splashed into the Indian Ocean to board hovercraft and amphibious vehicles to take them to warships offshore. The last marines left the shores of the anarchic African country about 1 a.m. on Friday, witnesses said.

Flares lit up the war-damaged streets of the Somali capital. Somalis living in houses overlooking the sea said they could see the blinking red lights of the warships and thought the flares might have been launched from them.

They said there was no sign of any shooting from Somali gunmen positioned on hills overlooking Mogadishu's airport.

A ghostly silence spread across the capital as the U.S. forces and warships from six nations disappeared over the horizon.

"Spectre" AC-130 gunship aircraft and "Super Cobra" attack helicopters hummed overhead in the black night sky to cover the withdrawal but vanished as soon as it was complete.

"U.S. and Italian marines (have) completed the extraction of United Nations forces and their equipment from Somalia..." U.S. Defense Secretary William Perry said.

He said in a statement in Washington that the operation had gone "smoothly and safely" and thanked U.S. troops for a job well done.

"The overall effort was incident free," said a senior U.S. military official, who asked not to be identified. "I would characterize it as an extremely successful coalition operation."

Somalia's Aided celebrates forces' departure

MOGADISHU, March 3 (Reuters) - Somali clan militia leader Mohamed Farah Aided on Friday celebrated the departure of foreign forces and condemned the two years of military intervention.

"I am pleased that all foreign forces have left and that we can rule our country, that we can do the job ourselves," Aided told reporters at his house, where a party was being

held.

Aided, whose followers battled U.S.-led troops in 1993, said: "We are members of the U.N. What we needed was only humanitarian intervention, not military intervention, destruction of life and property."

Missing Soldier's Body Found

SAN ANGELO, Texas (AP) The body of a soldier abducted from a military base was found Thursday and a civilian base employee was arrested who authorities say confessed to kidnapping and killing her.

Goodfellow Air Force Base officials said the body of Army Pvt. Tracie McBride was discovered before dawn about 27 miles north of San Angelo. The suspect, 44-year-old Louis Jones, was charged with aggravated kidnapping and the aggravated sexual assault of another woman. He was arrested Wednesday night and remained jailed Thursday on \$200,000 bail.

Ms. McBride disappeared Feb. 18 from the base's coin-operated laundry where she was on guard duty. Witnesses said the 19-year-old soldier was abducted as she talked on the telephone.

Justice of the Peace Eddie Howard said similarities between Ms. McBride's case and the Feb. 16 aggravated sexual assault of another female soldier led investigators to Jones.

A criminal complaint, dated Thursday, says Jones told investigators that he abducted Ms. McBride, put her in a closet at his home and then took her to Coke County, where he killed her.

2 Soldiers Killed At Ft. Riley

FORT RILEY, Kan. (AP) A shooting at an Army barracks Thursday left two soldiers dead and another wounded, authorities said.

The shootings occurred at a Custer Hill barracks just before 6 p.m., Maj. Ben Santos said. The wounded soldier was in stable condition at a base hospital.

One of the soldiers killed was believed to have been the gunman, Sgt. Greg Binford said. No military weapon was used in the attack, he said. The Army gave no other details on the shooting.

It was the second double-slaying at Fort Riley in less than a year.

(Complete wire copy available at CNARS, Room 4CB81)

SPENDING...

from Pg. 13

overall request by \$800 million, partly by deducting about \$200 million that Kuwait and the United States paid for American operations in the Persian Gulf and Bosnia.

To offset the remaining \$600 million, the committee cut programs like the military base cleanup money and \$200 million from a Democratic plan to encourage military contractors to develop products with military and commercial uses. It also cut \$80 million the Army said it would need for logistics support in Haiti and \$63 million the Navy wanted to improve roads and dining halls at the Guantanamo Bay naval base, where 27,000 Cuban refugees are living. About \$175 million would be cut from research appropriations.

The House bill added \$670 million for training and maintenance accounts. In their bill, the Senate panel rejected the extra money, saying the issue could wait until later this spring.

Draft report raises questions, eyebrows

Nuclear-powered carriers still raise concerns

By Linda Rosta
Journal Reporter

One in a regular series of reports, although the draft environmental report for the berthing of a nuclear-powered aircraft carrier at Naval Air Station North Island has just been released, it may raise more questions than it answers.

Officials at the Southwest Division Naval Facility Engineering Command have recently released the Draft Environmental Impact Statement (EIS), prompting discussion among city council members and environmentalists on whether the issue has been thoroughly analyzed.

The document confirms the development of facilities to support the homeporting of one Nimitz-class (CVN) carrier at NAS North Island. Under the 1993 Base Realignment and Closure Act (BRAC), three nuclear-powered carriers are scheduled to be homeported at North Island in the next decade. However, the EIS addresses the berthing of only one. There are currently three conventionally powered (CVS) ships homeported at North Island—the aircraft carriers USS Kitty Hawk and USS Constellation, and the USS Coronado, a flagship for the Third Fleet.

Plans for the two carriers include

moving the Constellation to a new homeport at Yokosuka, Japan in FY 1998. The Kitty Hawk will remain at North Island until it is decommissioned in the year 2003. Proposed construction will begin at North Island this December. The John C. Stennis is scheduled to arrive here sometime in 1998 from Naval Air Station Alameda which is slated for closure.

Additional ships scheduled to arrive at North Island in the next decade include the USS Nimitz in FY 2001 and an as yet uncontracted nuclear-powered carrier, which will arrive in FY 2005.

Among those expressing concern about various aspects of the EIS are the Environmental Health Coalition's Clean Bay Campaign Director Laura Hunter. "Navy officials have said that there is a section in the EIS that addresses the potential for a nuclear accident but it's not there," said Hunter.

Dredging for the project is scheduled to take place from February 1996 to May 1997 and will cost \$70 million. Since the Nimitz-class aircraft carrier is one of the deepest draft ships in the Navy, the outer channel would be dredged from its existing depth of minus-42 feet to minus-55 feet and would continue south for approximately 2.2 nautical miles.

Said Hunter, "They're dredging a massive amount of the bay and the only mitigation they're doing is for the ecigrass—it's piling it back." She added that in her estimation,

Turn to DRAFT, p. 3B

ID:703-276-1264

JUN

Draft

Continued from page 1

the Navy hasn't really analyzed any reasonable alternatives for homeporting the CVNs. "Long Beach is a viable alternative," suggested Hunter.

According to the EIS, North Island was selected for berthing the CVNs in lieu of several other San Diego military installations as well as the Broadway Pier complex.

Criteria in the Navy's site selection process include clear access to the sea and high voltage shore power as well as access to shore services such as water and sewer. Additionally, sufficient parking, roads and services for personnel such as medical, housing, shopping and schools were all components of the Navy's final decision.

Additional construction scheduled for North Island includes the creation of berthing and propulsion plant depot maintenance facilities and a controlled industrial facility that would be used for the inspection and repair of radiologically controlled equipment.

Also to be completed by 1998 are a ship maintenance facility to store tools and industrial processes and a maintenance support facility to accommodate administrative and technical personnel offices.

Cornado City Council member Bruce Williams said that he questions the impact the carriers would have on an already severe traffic situation here. "I'm concerned about the Navy's reluctance to address the homeporting of three nuclear carriers at North Island—they keep referring to it as only one," said Williams.

He went on to say that the semantics in the EIS are incongruous. "The Navy continues to address the homeporting issue in 'San Diego,' but the carrier will be berthed in Coronado."

The average CVN crew numbers 3,217 compared to the CV crew of 3,115 (neither figure includes an air wing). There were 19,130 personnel attached to North Island in 1992 and at buildout in 1999 there will be a projected 18,800 personnel, according to the EIS. These figures take into consideration the fluctuation of the various squadrons that are expected to deploy over the seven year period.

Peace Resource Center Executive Director Carol Jahnkow said that the issue is a politically charged one. "The immediate concern is the impact that construction and dredg-

703 2

Document Separator

Env'tl meetg.

Part of Log Beach ^{sediment} would be needed for some of fill
activities ongoing now.

AQMD - ~~is~~ wants to consider the a model

Napa Island wants air credits from Log Beach.
BAT technology etc: allowed development of
credits for

Layout permit: ~~target~~ Title II quantity permit.

Sandblast site

Ground sinking problem due to oil being pumped out -
Sandblast site fill - has been encapsulated.

Sandblast site

RI/FS workplan - 1st round sampling -
data validation -
tech memo for continuing planning -
early sampling was not considered adequate.

IAS - Original Initial Assessment Study (2 sites - all together)
1 copy.

started RCRA corrective action -
Now it's more of CERCLA -
PA/SI done as

TRC for all installation.

RAB's -

3 co-chairs - BEC, Community Co-Chair -
20 members for community
water Bd, EPA, DTSC -
BCP's done - just submitted.

Taber Ave

San Pedro Housing: will probably be unnecessary if ~~the~~
sig closes. (Army & AF & other services live in
San Pedro Housing.

Drifter removal site evaluation.

San Pedro RAB: none

Taber Ave housing: orig. a McKinney
Almost 100% attendance.

site ① is the Harbor - west basin.

DHA's fuel pier - on the mole - most common.

Canis: deep enough - can at extreme low
waters: deep enough - Not enough need for
breeding.

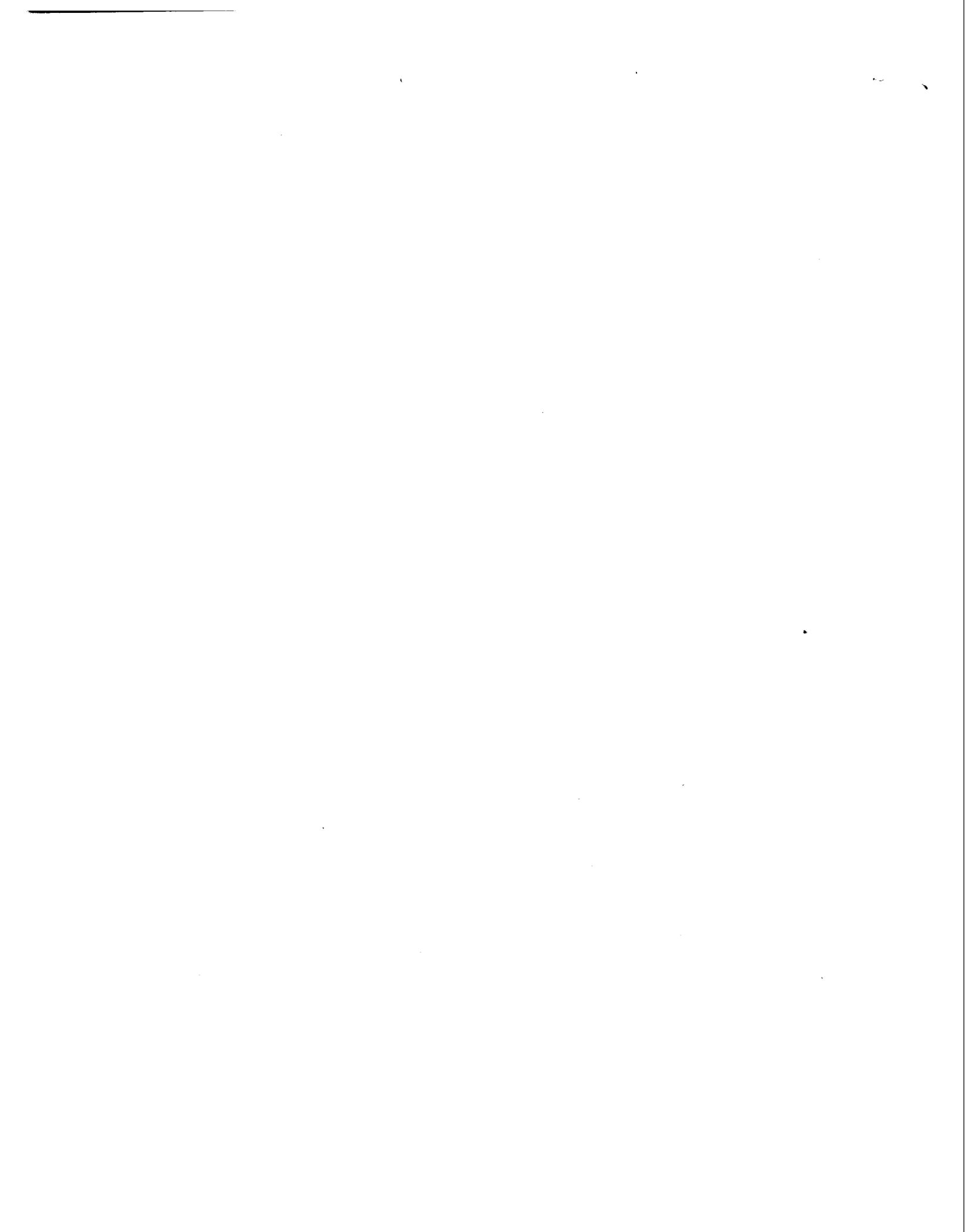
(310) 547 7711 or 7798
Anna Ulaszewski
Ted Augerinos 547-6269
-7466
Lou Smith.

Cleanup will be very expensive -
woodblock floor - acres of flooring.
foundry spit -
if you're using it, it doesn't block
closure will cause it to be

All sewerties & storm drain lines will be considered
for analysis - argmt that it would need to be
more arduous -
More samples & analysis of sewer lines.

More is flowing out of the sewer system than LBS is
producing.
Flooding sewage: This is a high season for infiltration.

Enranted folks don't like the fact that our sys
that are staying open are obfuscating their enranted
problems -



Why was NavStar closed & not SG?
What is impact of NavStar being closed on SG?

lots of recent reduction/dismantling of old equip & bldgs.

28% reduction of hi-grade jobs

4-day compressed work week was introduced.

Increase in shipyard efficiency -

Reduce in rush hour traffic -

Surcharge: covered loss - recouped faster -
make way & repair way.

LBSY - was applied a surcharge to make

up for losses at other ~~ship~~ shipyards.
3/4 billion in red; by beam is a black.

Na

but it makes it look cheaper to send your work elsewhere than it actually is.

Virtual man-day rate. What's the real rate?

\$536/man-day

* Shipyard: ~~\$700~~ \$700/man day
but it's really costing \$750/man day; but shipyard
is only charging \$600/man day

Current cost: \$536/man day, but "virtual" or "stabilized"
cost is \$570 - \$585

75% of May is expected to be an un-auc
(contracted)

- meet downstairs - press conf.

Lecture

Lunch

Tow / HTCO

communit.

3 buses going up from San Diego.

Jeff Gooding - Human Resources

Kurt Leonard - operations office - communit.

Capability - Need collocated equip
Balancing machines; long lathes, etc.
LB can work on all ~~of~~ of this stuff
at once.

Antitum-

HTCO - manufacturing submarine sonar domes.

Immediate freezing, rail, etc.

Dz Dark 1 - computer aided equipment -

Good condition - NO milcon except for Haz. mat.

storage facilities

25% of CBSG workers on temporary - this is a
Navy wide goal.

Private sector outfits collocated with our shipyard.

LBG - 2nd largest employer in city of CV.

used to need to disport 3
70-100 tons of ship blast.

Absorbed the closed features of the Navy Sta -

Commissary volume is high → operate, profits for a rest of the
Marine is full. Golf course fully utilized.

Some ships are home ported here.

More of the Navy Sta home ported ships

Immediate access to open ~~ship~~ sea;

No dredging is needed, but construction dredging was needed
once over the past 10 years.

GoCo ~~Co~~ County owned - contractors operated.

Building sonar bow domes for submarines.

This place has survived so far on nuc. sub activities.

military value: a lot of that's judgment call left admins.

Shipyard: capacity drives it. ^{nuclear} non-nuclear *

* has ~~for~~ private sector repair options

what is cost of retaining excess capacity?

Hitco would

Access issue - next ~~to~~ = 50 ft. access corridor from City if
they were to get closed.

City might want Navy to pay for an easement.

Navy decided to keep Hitco open ~~to~~ but didn't account for

costs of keeping Hitco open in its COBRA calculations.

It should be incorporated into COBRA.

Stats of Reuse plan. Re 65 has no reuse plan for SSY.

(That's ok.)

Smaller domes: 4 mo - Large domes: 1 yr. → Sea wolf dom.

~~Sea wolf dom.~~

% of revenue from manufacturing: 90-95% ; 10% repair.

New SSN dome: ~~long~~ time req'd of Guild? N 8-10 mo's

~~1/4 scale SSN small~~

Nurre, Deirdre

From: Creedon, Madelyn
To: Nurre, Deirdre
Subject: fyi
Date: Friday, April 14, 1995 12:50PM

if you should ever need them, i have the dera reports from fy89-93 on the bottom shelf of the bookcase in my office.

F Community Environmental Projects.
when are they ~~around~~ ^{around} all the permits -
Scops - public hearing -

when are they with regard to EIS?
when are they with regard to all
the permits?

what's the level of community
support?

Check North pier.

increased

traffic - is a concern.
EIS: 3 carrier is norm.
2 home ports issues.
Δ in traffic is minimal.

NAS North Island
carrier pier

2 ~~at~~ dredge channels
~~2 wharfs~~
2 wharfs
1 tug basin
dredging of channel.

North Island Dredging -

to not go ahead + do this -

LB should go ahead

clean of LB is ~~not~~ precluding a
better option.

Now "has it in for" Long Beach.

Dredging for carrier pier expansion.

Almost all sample is clean + will be
filled is only ~~could~~ some soil is
dirty + will be filled

Most stuff will be encapsulated under
tug basin + channel.

Need - EIS, RFP

cost:

Have they ever explored the option in Long Beach?

Is it feasible? Environmental issues associated with
dredge spoils in L.B. Harbor

dredging
sun pier
problems to
dredge
and pier
at Long
Beach.

North Island
environmental
impacts -

Regional Board -

~~Michael Lyons~~ Michael Lyons, Regional Board.
Michael Lyons (213) 264-7616 -

LA Harbor sediments -

Environ. Mon. & Assent Program.

Janet Hashimats - EMAP - mapping of sediment
contamination - knows about

x 1156

Ni data is not available.

Brian Ross - 1987

LB: one of the only docks that can take on large
ships -

A lot of sediment we're

Dredging will have to be done anyway.

Marina ~~is~~ was built - a confinement area offshore
in disposal - build it down to 15 feet.

Costly - Hard to

Notes for talk of
Cheryl Lantz

744-2384 Jane Diamond.
NAS North (619) 545 1011 - (619) 545 0028
~~XXXXXXXXXX~~
Environmental office.

Pollin dot shows that once that will
require remediation is about the piers.

would require land disposal - would be
costly.

Hard.

Could do

DD4 - up by the large dry dock -

Ordering problem seems to be of community
~~and ships~~

large craft is not particularly well received.
Don't seem to be that concerned about the ecological
value of LB.

Ports will probably take it over.

Proposal for Port of LB: fill in $\frac{1}{2}$ the piers use it
for containers

North Island: Relatively close to some popular areas.

And Lincoln: PCBs + pesticides found in ^{San Diego} North Island
on some of the west coast.

Los Beach, and the piers on some of the west coast.

To: Deirdre Nurre
Base Closure Commission
703 696-0550

From: Sheryl Laute

Hi Deirdre -

Sorry I took so long to get this to you!

I put together info on IR sites primarily -
I did not include "Compliance" issues - I
can send you that if you want, just let me
know. I also included a map: table with

Industrial waste blags / possible source areas - The
Navy is planning to start the EBS process - so
I would hope a lot of these areas (outside IR program)
will be identified and incorporated into IR program
as necessary. I will be in the office
Friday - so please call me if you
want anything further
Sheryl

BCP ABSTRACT

NAVAL STATION LONG BEACH, NAVAL HOSPITAL LONG BEACH and ASSOCIATED HOUSING Prepared: 20 February 1995
Department of the Navy, BRAC II

INSTALLATION SUMMARY

Naval Station Long Beach (NAVSTA)
Closure Date: 30 September 1994
Location: Long Beach, CA
Size: 959.2 acres
Final Property Transfer Date: TBD

Naval Hospital Long Beach (NAVHOSP)
Closure Date: 30 March 1994
Location: Long Beach, CA
Size: 65.2 (includes Parcels A & B)
Final Property Transfer Date: 1995

ENVIRONMENTAL SUMMARY

BRAC Cleanup Team - DoD member, Alan K. Lee; State member, Alvaro Gutierrez; USEPA Region IX member, Sheryl L. Lauth.

Restoration Advisory Board - 25 members total (19 community members); Community Co-chair, Dan Cartagena; Military Co-Chair(s), Alan K. Lee, and C. Anna Ulaszewski. Meetings are held bi-monthly.

Regulatory Program - Non-NPL installations. No FFSRA.

Fast-Track Initiatives

The following five DoD initiatives are being implemented:

- Identification of Clean Properties
- Overlapping Phases of the Cleanup Process
- Interfacing with the Community Reuse Plan
- Partnering
- Improved Contracting Procedures

Environmental Condition of Property

A CERFA Environmental Baseline Survey (EBS) was performed for both the NAVSTA and the NAVHOSP which included a review of past installation activities/uses, a review of aerial photographs, discussions with past and present installation personnel, a review of previous environmental investigations and a review of regulatory databases.

NAVSTA

Draft EBS issued 30 September 1993
Final EBS issued 15 December 1993
Revised Final EBS issued 12 April 1994

NAVHOSP

Draft EBS issued 09 December 1993
Final EBS issued 05 January 1994
Revised Final EBS issued 12 April 1994

NAVSTA/NAVHOSP

ECP Classification	1	2	3	4	5	6	7
Percent of Total Land Area	13%	(<1%)	0	3%	(<1%)	83%	1%

NAVSTA Property Leased: 0 acres
NAVSTA Property Transferred: 79 acres

NAVHOSP Property Leased: 0 acres
NAVHOSP Property Transferred: 0 acres

FINANCIAL SUMMARY (Funding Requirements \$000)

NAVSTA/NAVHOSP Programs	FY95	FY96	FY97	FY98	FY99	TOTAL
IR Program						
Compliance Program						
Natural and Cultural Resources						
Total						

REUSE PLAN STATUS

The Reuse plan for the NAVSTA is in the draft stage with anticipated completion, Fall 1995. The Reuse plan for the NAVHOSP states that Parcel B will revert back to the City of Long Beach, Spring 1995, and proposes the development of a retail center on Parcel A.

RESTORATION PROGRAM

The NAVSTA IR Program consists of 7 IR sites, currently being evaluated in RI/FS (CERCLA) documents; and 20 AOCs identified for environmental investigation in March 1995. Site 7 (harbor sediments), presents a challenge in evaluating the extent of contamination, negotiating issues with the numerous regulatory agencies and determining the best cleanup option. RI/FS for Sites 1 through 6A complete September 1995; RI/FS for Site 7 complete February 1996.

*Shipyard approx 6-9 months
behind Station*

The NAVHOSP has no IR sites and, thus, no IR Program.

COMPLIANCE PROGRAMAsbestos

An asbestos survey was performed for the NAVSTA and NAVHOSP. The results of the survey recommended a management in place program and stated that no abatement or mitigation was required at this time. The survey excluded some of the buildings on the Mole and Mole corridor, now scheduled to be surveyed in 1995.

Lead-based Paint

A lead-based paint survey was done for the NAVSTA housing, NAVHOSP housing, and NAVSTA Building 685 (Child Development Center) only. The only lead-based paint abatement planned at this time is for Building 685.

Polychlorinated Biphenyls (PCBs)

- The remaining PCB-containing equipment at the former NAVSTA is currently maintained by the Long Beach Naval Shipyard
- The NAVHOSP identified and removed all PCB-containing equipment in 1989.

Radon

Testing for radon was completed for the NAVSTA and NAVHOSP in 1991. No further action is required.

Underground Storage Tanks (USTs)**NAVSTA**

- 22 USTs removed - environmental investigation or sampling complete 1995
- 3 USTs in use - future action TBD
- 2 USTs temporary closure - future action TBD
- 4 USTs abandoned in place - tank removal anticipated 1995
- 3 USTs not located - confirmatory investigation 1995

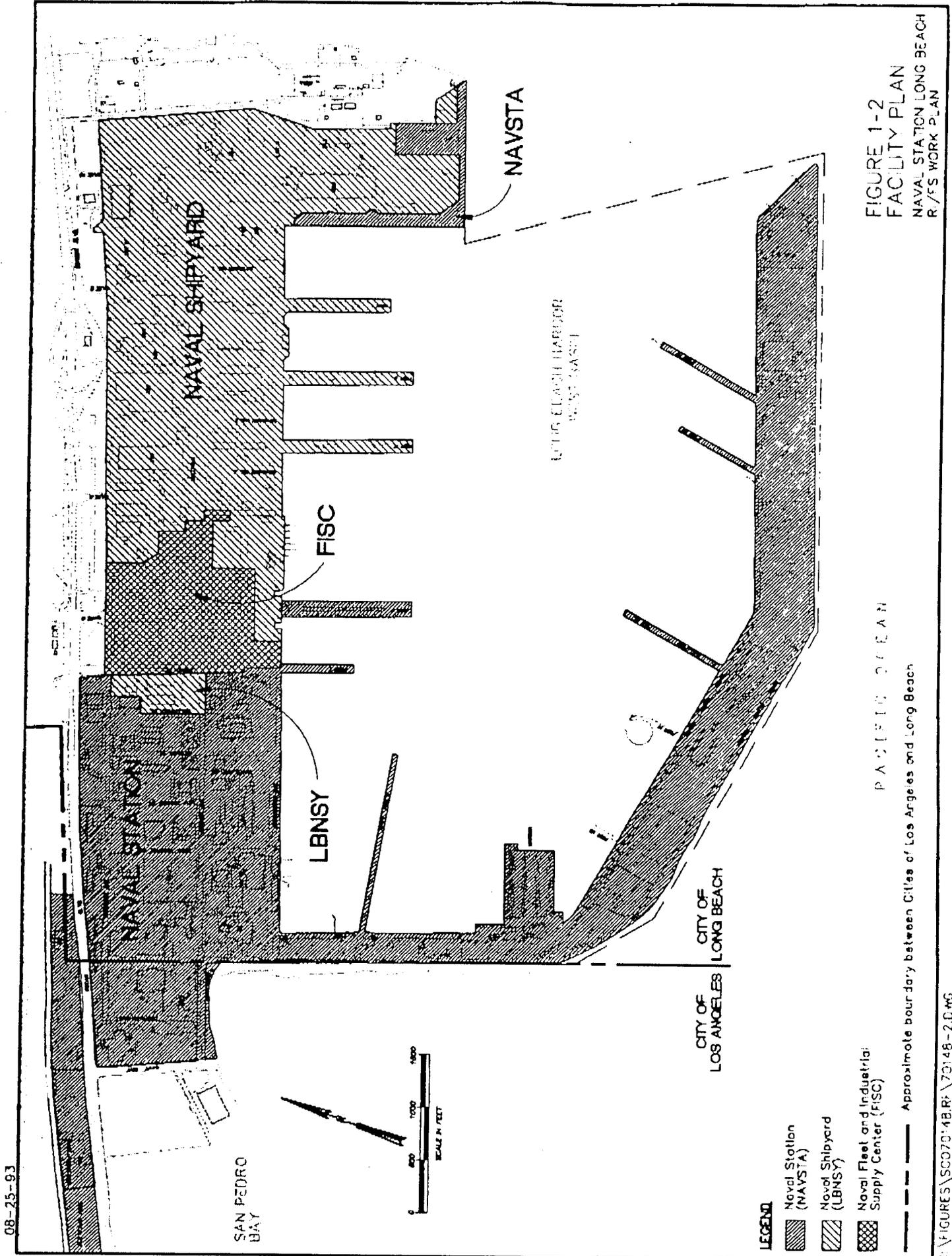
NAVHOSP - All 10 USTs have been removed, environmental investigation is complete, and groundwater monitoring began in September 1994.

Solid Waste Management Units (SWMUs) None

Other None

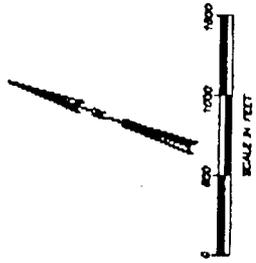
EXECUTION ISSUES

None



08-25-93

SAN PEDRO BAY

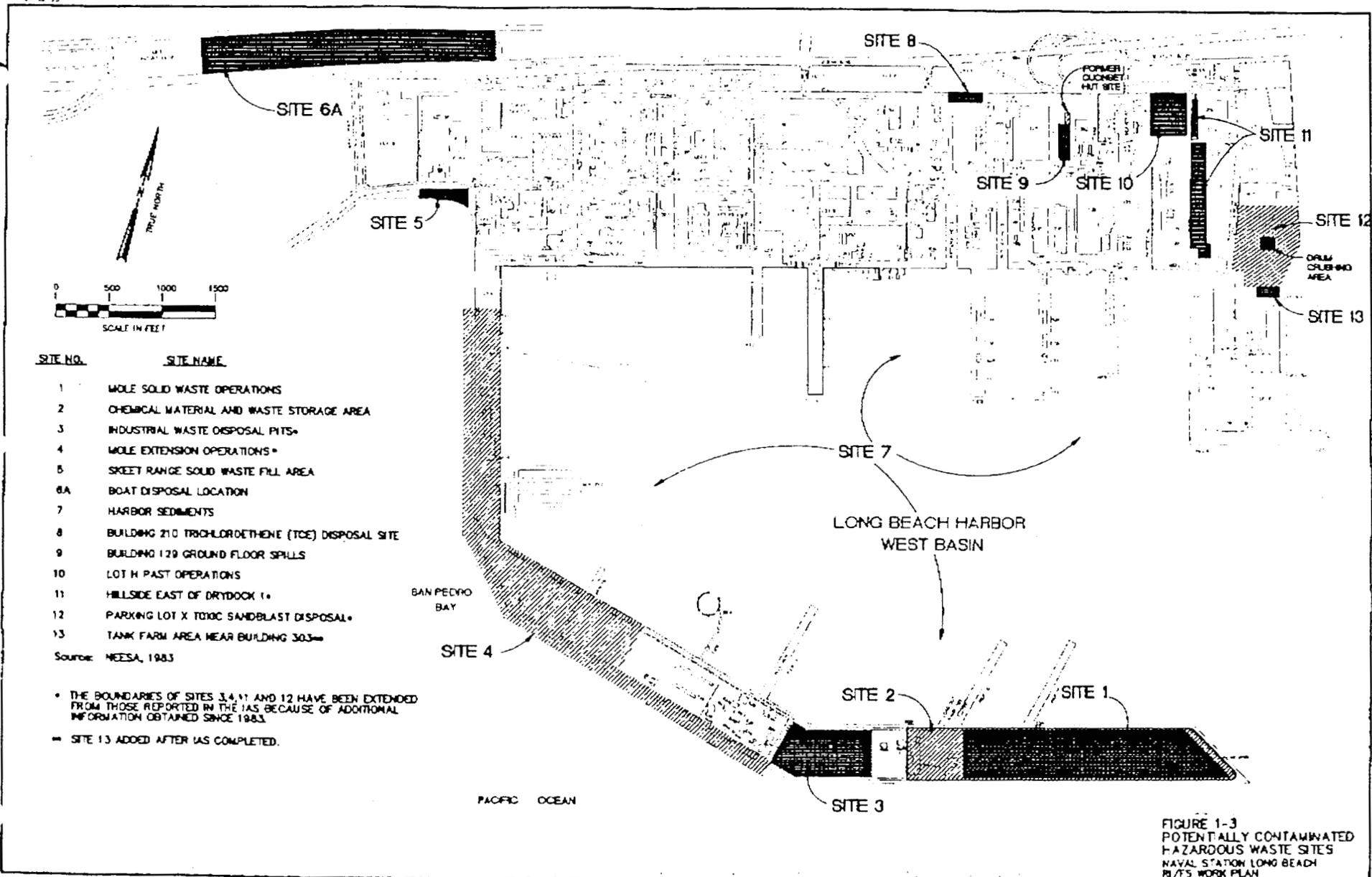


CITY OF LOS ANGELES CITY OF LONG BEACH

- LEGEND**
- Naval Station (NAVSTA)
 - Naval Shipyard (LBNSY)
 - Naval Fleet and Industrial Supply Center (FISC)
 - Approximate boundary between Cities of Los Angeles and Long Beach

PACIFIC OCEAN

FIGURE 1-2 FACILITY PLAN NAVAL STATION LONG BEACH R/FS WORK PLAN



Chapter 3

Installation-Wide Environmental Program Status

3.1 ENVIRONMENTAL PROGRAM STATUS

This chapter provides a summary of the status of environmental restoration projects and community involvement. At this time, there are no Installation Restoration sites that are significant impediments to reuse and property transfer.

3.1.1 Restoration Sites

NAVSTA

An Initial Assessment Study (IAS), equivalent to a Preliminary Assessment (PA), for the Long Beach Naval Complex (LBNC) was completed in August 1983. The IAS identified 12 potentially contaminated sites. Sites 1 through 6A are located at the NAVSTA, and Sites 8 through 12 are located at the LBNSY. Site 7 (Harbor Sediments) is divided between the two activities, but is managed as one site under NAVSTA projects. The IAS concluded that none of the 12 sites posed a significant threat to human health or the environment to warrant a confirmation study, but recommended various precautionary measures.

A Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) for the LBNC, dated 30 November 1989, was prepared by the DTSC. The RFA recommended further action at the 12 sites identified in the IAS, as well as one additional site (Site 13, located in LBNSY).

A Site Inspection (SI) for Sites 1-6A and 7 was conducted in 1991. The purpose of the SI was to verify the presence of hazardous substance contamination at the seven sites identified by the IAS for the NAVSTA. The SI Report was finalized in November 1992, and further investigation was recommended for each of the seven sites.

A Remedial Investigation/Feasibility Study (RI/FS) Work Plan for the NAVSTA was completed in September 1993 and approved by the DTSC in November 1993. The objectives of the work plan were to

Chapter 3

Installation-Wide Environmental Program Status

examine the nature and extent of contamination at Sites 1 through 6A and 7, to evaluate the potential risk to human health and the environment, to determine if remedial actions were needed for these sites, and to select the most cost-effective remedial alternative protective of human health and the environment.

Implementation of the RI/FS Work Plan for Sites 1-6A started in February 1994, with field investigation activities complete in July 1994. Implementation of the RI/FS Work Plan for Site 7 started in June 1994, with field investigation activities complete in August 1994. Currently, data collected from these investigations are being evaluated. Two draft RI/FS reports will be prepared, one for Sites 1-6A, available in June 1995; and one for Site 7, available in October 1995.

Installation Restoration Sites at NAVSTA

Site 1 - Mole Solid Waste Operations. For approximately 20 years, the site was used to landfill solid wastes by cut and fill methods. Occasionally, wood and other debris were burned to reduce volume.

Site 2 - Chemical Materials and Waste Storage Area. From the mid-1960s until 1980, pallets of containerized wastes and containerized raw materials were stored at the site. Many of these containers had leaked through the years.

Site 3 - Industrial Waste Disposal Pits. From the 1940s to the early 1970s, industrial wastes and trash were dumped in pits at this site. When the pits were filled-up, they were covered over.

Site 4 - Mole Extension Operations. Fill material was deposited along the edge of the Mole and bulldozed into the ocean. Sandblast grit, construction debris, ship's fire brick, trash, and soil were disposed of at this site.

Site 5 - Skeet Range Solid Waste Fill Area. From the mid-1930s to 1968, lead shot residual, solid waste, including bed frames, desks, fire brick, and construction wastes were disposed of at this site.

Site 6A - Boat Disposal Location. From 1942 to 1965, old boats, sandblast grit, and shipyard solid wastes were buried at this site. Oily waste was used for compaction and dust control.

Site 7 - Harbor Sediments. From the 1940s to the mid-1970s, drainage from various industrial areas and cleaning/process tanks was discharged into the Long Beach Harbor's West Basin. This occurred directly through storm water discharge and from flushing dry docks.

See Table 3-1a for a summary of NAVSTA Installation Restoration sites.

Housing. No Installation Restoration sites have been established at Savannah/Cabrillo or Taper Avenue housing.

NAVHOSP

No Installation Restoration sites have been established for the NAVHOSP (Table 3-1b).

3.1.2 Installation-Wide Source Discovery and Assessment Status

NAVSTA

A facility-wide investigation for the NAVSTA will be included in the RI/FS.

A CERFA EBS was prepared for the NAVSTA Main Base which identified specific Areas of Concern (AOC) not included in the IRP. The AOCs summarized in Table 3-2a are a combination of AOCs found during the EBS evaluation and AOCs established by the BCP project team. A further discussion of these AOCs is in Chapter 4, Section 4.1.6.

An additional area, Site 6B, has been identified for study. Site 6B was not included in the IAS due to a real estate transaction which occurred at the time the IAS was conducted. The site was included in a parcel of land leased to the POLA. A PA was completed in October 1993 which recommended a limited soil and groundwater investigation. An Expanded Site Inspection (ESI) work plan was developed and

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CLE-C01-01F250-B7-0002

4.0 SITE 8 - BUILDING 210 TRICHLOROETHENE DISPOSAL SITE

4.1 Site Description

Site 8 is located along the southern fenceline of Lot S, north of Building 210, as shown in Figures 4-1 and 4-2. The site dimensions are approximately 85 feet by 300 feet. The area is flat and consists of an unpaved parking lot presently used by base personnel. Primary activity in the area is industrial. Active oil wells are located just north of the site within Lot S. The nearest surface water body is the West Basin of Long Beach Harbor, which lies about 1,600 feet to the south. Access to Site 8 is limited by the security provided for the controlled industrial area section of the LBNSY, but no additional security to the area exists.

Between 1974 and 1980, an estimated volume of approximately 200 gallons of trichloroethene (TCE) generated by the electronics shop in Building 210 was disposed of in small quantities along the fence line in the area defined as Site 8 (NEESA, 1983). Since 1980, the area has been an empty lot used for parking.

4.2 Summary of Existing Data

4.2.1 Previous Investigations

Site 8 was identified during the IAS completed in January 1983 (NEESA, 1983), and included in the RFA (DTSC, November 1989). The RFA recommended further action be taken to evaluate the potential for the release of hazardous constituents.

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CLE-C01-01F250-B7-0002

5.0 SITE 9 - BUILDING 129 GROUND FLOOR SPILLS

5.1 Site Description

Site 9, as shown in Figures 5-1 and 5-2, includes the following areas:

- o The ground surface beneath Building 129, located in the north-central portion of the LBNSY.

- o The area north of Building 129, referred to as the "Former Quonset Hut" site.

Site 9 is located in the controlled industrial access section of the LBNSY. A marine machine shop currently operates within Building 129, and the area directly adjacent to Building 129 is flat and paved with asphalt. Structures near Building 129 include the shipfitters shop (Building 128) and the abrasive blast building (Building 202); two hazardous waste staging areas are situated north of Building 129. Access to Site 9 is limited by security provided for the CIA section of the LBNSY.

From 1949 to 1973, an electrical shop and a weapons shop operated on the first floor of Building 129, generating waste oils; greases; and solvents associated with degreasing and paint removal operations. These industrial wastes reportedly were disposed into two concrete trenches located inside Building 129 at the base of the east and west walls (SWDIV 1992b). The trenches sloped to drain into four underground sumps located at each corner of the building; these sumps were pumped out once per week by the transportation shop. The trenches would reportably overflow when clogged by dirt and oil sludges. Also, spillage occurred from process tanks during daily operations. The

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floor of Building 129 was a concrete slab overlain with a wood block floor; the quantity of wastes spilled onto the wooden floor is unknown.

In 1973, the electrical shop and the weapons shop moved to Building 210, and Building 129 was renovated under the LBNSY's Modernization Program. Work included the removal of the trench system and the replacement of a portion of the wood block floor with concrete pavement. Since 1973, additional wood blocks have been removed, as required by deterioration, and disposed of at a Class I landfill.

The second release at Site 9 was a spill of TCE that occurred in 1974 or 1975 on the paved area immediately north of Building 129. The spill reportedly involved approximately 15 drums (825 gallons) of TCE and caused the asphalt pavement to buckle. The TCE was reportedly washed into the storm sewer by the fire department (SWDIV 1992).

5.2 Summary of Existing Data

5.2.1 Previous Investigations

Site 9 was identified during the Initial Assessment Study (IAS) in 1983 (NEESA, 1983). The site was also included in the RCRA Facility Assessment (RFA) conducted in 1989 by DTSC, which recommended that further action be taken to investigate potential releases and exposure pathways.

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6.0 SITE 10 - LOT H PAST OPERATIONS

6.1 Site Description

Site 10 is located in Parking Lot H in the northeastern portion of LBNSY, as shown in Figures 6-1 and 6-2. Building 142 (personnel/employment) is adjacent to Site 10, and Building 147 (industrial relations) is approximately 150 feet to the west. Drydock 1 is located south-southeast of the site, and off-base oil wells are located along the northern border. Subsidence on Terminal Island has lowered the elevation in the area to approximately 10 feet bsl. The site is flat and is currently paved with asphalt. Access to Site 10 is limited by the security provided for the LBNSY. There is no additional security specific to Site 10.

From about 1952 to 1957, an unpaved scrapyard was situated where Parking Lot H now exists. The hazardous material stored there included batteries, waste oil, mercury, and spent sandblast material. Prior to selling the batteries for reclamation, the battery acid was disposed of by pouring it onto the ground. An estimated 1,700 to 2,400 gallons per year may have been disposed of in this manner (NEESA, 1983).

Occasional releases of mercury also occurred from radar equipment stored in the area. The total quantity of mercury spilled could not be ascertained during the IAS. The standard procedure for disposing of the mercury in the equipment was to return it to the vendor.

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7.0 SITE 12 - LOT X TOXIC SANDBLAST DISPOSAL

7.1 Site Description

Site 12 is located in Parking Lot X, east of Skipjack Road on the eastern part of the LBNSY, as shown in Figures 7-1, 7-2, and 7-3. The nearest building is Building 314, the hazardous waste storage facility, which is approximately 150 feet to the northwest. Site 12 is flat and covered mostly with gravel or asphalt. Access to Site 12 is limited by the security for the LBNSY.

Approximately 72 to 100 tons of sandblasting waste containing paint chips with tributyltin were disposed of somewhere in Lot X between 1971 and 1975. Based on the estimated quantity of sandblast waste disposed, the disposal area is estimated to be 15 feet by 15 feet by 10 feet deep (NEESA, 1983). Because the location of the sand blast girt disposals is unknown, the boundaries of Site 12 are currently defined by Lot X.

Other releases of potentially hazardous materials occurred at Site 12 as the result of drum crushing operations in Parking Lot X that took place between 1986 and 1988 (DTSC, 1989). The contents of the drums included epoxy-based paints, cleaning solvents, such as TCE and stoddard solvent, lube oils, and other petroleum-based products; all drums were empty prior to being crushed. The area where these activities were conducted (as shown on Figure 1-3) is approximately 100 feet by 120 feet and is enclosed by a chain-link fence.

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8.0 SITE 13 - TANK FARM NEAR BUILDING 303

8.1 Site Description

Site 13 is located on the eastern boundary of the LBNSY, northeast of Building 303 and south of parking lot H, as shown in Figure 8-1. The site is a hazardous waste storage area (tank farm) that is used for portable waste-storage tanks containing sodium nitrite, citric acid, trisodium phosphate, fire-fighting foam, waste oil bilge, and sulfides generated by the ships or by onboard service operations (SWDIV, 1992c). The tank farm is approximately 220 feet by 98 feet and is enclosed by a chain-link fence. A strip of unpaved area outside the eastern fenceline, where some soil stains have been observed, is also included in Site 13. Access to the site is limited by the security provided for the LBNSY.

Site 13 has operated as a storage area for approximately 20 years, from the early 1970s until the present (DHS, 1989). There have been no reports of any large spills or leaks, but some areas of the asphalt are stained, indicating occasional leakage from damaged drums or releases from tank-flushing operations conducted onsite. The site is currently bermed and containment trays have been added to the portable storage tanks (SWDIV, 1992c).

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9.0 SITE 11 - HILLSIDE EAST OF DRYDOCK 1

9.1 Site Description

Site 11 is located on a hillside in the eastern portion of LBNSY as shown in Figure 9-1. The site covers approximately 188,000 square feet and is bordered by Parking Lots A, E, and F to the east and Parking Lots G and H to the west; an asphalt roadway bisects the site between Parking Lots A and F. Vegetation (ice plant) covers part of the site, but deposited sandblast grit and topsoil are exposed in the southern portion. The area has a surface relief of approximately 20 feet. Active oil wells are located east of the site within Lot E and are separated from Site 11 by a chain-link fence. The primary activities in the area are industrial. The southern edge of the site is approximately 150 feet from the West Basin of Long Beach Harbor. Access to Site 11 is limited by the security provided for the LBNSY, but no additional security specific to the area exists.

Around 1975, spent sandblast abrasives were used as fill to extend the natural hillside where Site 11 now exists. No records were found to document the quantity of spent sandblast grit disposed, but based on the original topography and reasoned assumptions, an estimated 6,400 yd³ of sandblast abrasives containing approximately 46,000 pounds of cuprous oxide were used as fill (NEESA, 1983).

5-2 IAS of Naval Complex Long Beach

The laundry and dry cleaning operations, which have been conducted at Building 46 since 1944, have always discharged wastewaters into the sanitary sewer (Brown and Caldwell, 1969). The steam plant and air compressor operations were

Table 5-1 Locations of Industrial Waste Generation, Naval Complex Long Beach

Building number	Building name	Shops involved (shop number)
4	Boiler Building	Utility (03)
5	Public Works	Maintenance (07)
7	Pest Control	Maintenance (07)
8	Painting	Maintenance (07), former Naval Station Public Works
43	Transportation Painting	Transportation (02)
46	Laundry and Dry Cleaning	Naval Station
51	Former Acetylene Plant	Utility (03)
54	Transportation Automotive Shop	Transportation (02)
73	Transportation Tire Shop	Transportation (02)
98	Insulation Warehouse	Insulators (57)
100	Training and Supply	Photography
102	Equipment Cleaners	Equipment Cleaners (72)
104	Utilities Shop and Power Building	Utility (03)
121	Transportation Inspection	Transportation (02)
122	Transportation Sheetmetal	Transportation (02)
128	Shipfitter Shop	Boilermaker (41), Welding (26), Shopfitting (11)
129	Marine Machine Shop	Quality Assurance Laboratory (code 134), Machinist (38), former Plating (51)
130	Sheetmetal Shop	Sheetmetal (17)
131	Pipe and Copper Shop	Pipefitting (56), Insulators (57)
132	Machine Shop	Heavy Tools (31)
143	Harbor Craft Service	Naval Station
144	Harbor Craft Service	Naval Station
145	Harbor Craft Service	Naval Station
149	Air Compressor Building	Utility (03)
150	Air Compressor/Substation 1, former Boiler Building	Utility (03)
162	Former Acetylene Plant	Utility (03)
202	Abrasive Blasters and Painters	Abrasive Blasting, Painting (71)
205	Metal Cleaning Building	Machine Shop Metal Cleaning
210	Electrical/Electronics Building	Electrical/Electronic Group Shops (36, 51, 66, 67)
216	Plate Abrasive Blasters	Abrasive Blasting (71)
300	Engineering Management	Public Works (Cooling Tower Maintenance)
302	Power Plant	Utility (03)
303	Service Group Building	Service Group Shops (64, 71, 72, 99)
727	Air Compressor	Utility (03)
Piers 1, 2, 3, 6		Shipboard Maintenance and Repair
Dry Docks 1, 2, 3		Shipboard Maintenance and Repair

Handwritten notes:
 05 =
 al supply
 103 material
 Storage
 12 = 103 waste
 Storage
 514 = 103 waste
 Storage

Handwritten notes:
 - spent acid, solvent
 sludge metal
 waste etc

Handwritten notes:
 Pollution
 Control
 Division
 10/1/85

Handwritten note:
 Shop A1 = Boilermaker
 solvent department

transferred from the Naval Station to the Naval Shipyard in 1974. Past industrial waste discharges from both operations at Buildings 4 and 727 are discussed in detail in section 5.4.2.2.

Document Separator


AIR QUALITY
MANAGEMENT DISTRICT

December 16, 1994

James Boatright
Deputy Assistant Secretary of the Air Force for Installations
The Pentagon
Room 4C 940
Washington D.C. 20330

SUBJECT: Emission Reduction Credits Available to McClellan AFB

Dear Mr. Boatright:

In November 1994, the Board of Directors of the Sacramento Metropolitan Air Quality Management District (District) adopted Rule 205, PRIORITY RESERVE BANK. The purpose of the rule is to facilitate future siting of *specified projects* by providing a mechanism for the District to collect and then allocate emission reduction credits for such projects. *Specified projects* include:

1. Essential public services
2. Reuse of a closing military base or expansion of an existing military base.

This rule has particular importance because of the creation of emission reduction credits resulting from local base closures (Mather AFB and Sacramento Army Depot) and the need for emission reduction credits for reuse plans and continued operation of McClellan AFB.

The source of emission reductions funding the Priority Reserve Bank in Rule 205 is a ten percent adjustment of all emission reduction credit transactions and emission reductions due to shutdowns not claimed for credit by the source. The emission reductions deposited in the Priority Reserve Bank will be allocated to essential public services except for emission reductions created by the closing of a military base. Those emission reductions will be allocated for military base reuse plans and for continued operation of McClellan AFB.

District staff is in the process of allocating emission reduction credits to essential public services and to military base related usage pursuant to the rule requirements. Under the current rule language, emission reduction credits that have been obtained to this date for funding the Priority Reserve Bank, are targeted for the Essential Public Services subaccount. However, District staff will be recommending at the January 5, 1995 Board

James Boatright
December 16, 1994

of Directors meeting that 50% of the emission reductions available for essential public services be allocated to military base related usage. This assures that emission reduction credits will be available to McClellan AFB with District Board of Directors approval. The amount of credits initially allocated to military base usage will be 27 tons/year of nitrogen oxides (NOx) and 12 tons/year of volatile organic compounds (VOC).

District staff is also in the process of quantifying the emission reduction credits resulting from the aircraft operations that have ceased at Mather AFB. Staff's preliminary quantification of the credits indicates that there may be up to 120 tons/year of NOx and 585 tons/year of VOC available for military base related usage. The California Air Resources Board and the U.S. Environmental Protection Agency will be given the opportunity to comment on the validity of the emission reduction credit analysis before they are finalized.

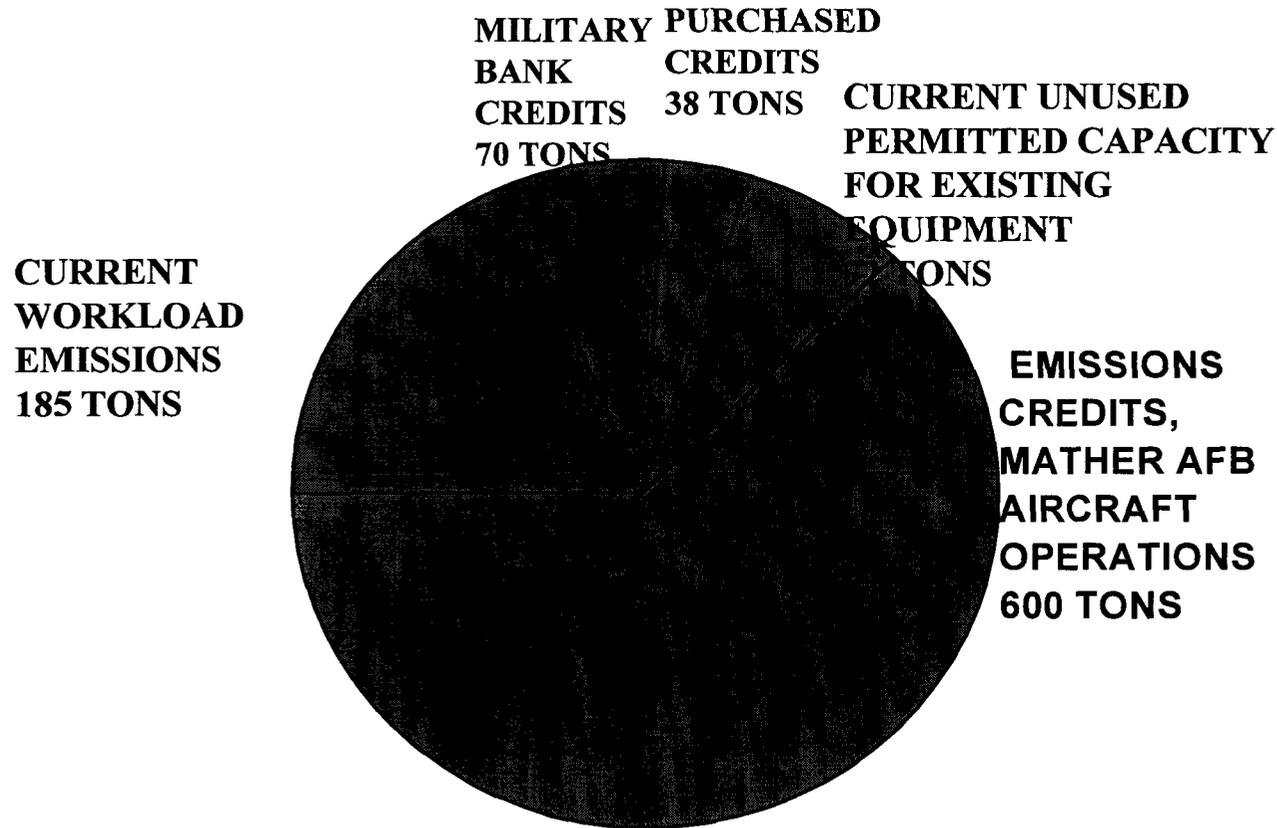
If the Mather AFB aircraft emission reduction credits are certified and deposited into the Priority Reserve Bank, then McClellan AFB could have up to 120 tons/year of NOx and 585 tons/year of VOC available for future use. The following table provides you with a relationship of these potential emission reduction credits to the existing stationary source emissions at McClellan AFB.

	Tons/Year		Tons/Year
NOx		VOC	
Boilers, ovens	29	Paints	91
Engines	20	Paint removers	9
Jet engine test cells	9	Degreasers	4
		Miscellaneous	10
Total NOx	58	Total VOC	114

The Mather AFB aircraft emission reduction credits could be available for expansion at McClellan AFB beyond the above listed existing emission sources. If the California Air Resources Board and the U.S. Environmental Protection Agency agree with the District's assessment of the Mather AFB aircraft emission reduction credit amounts, then McClellan AFB could potentially double the base's emissions of NOx and more than triple emissions of VOC. In addition, McClellan AFB has purchased emission reduction credits from another source in the amount of 39 tons of VOC to use for expansion at the base.

MCCLELLAN AFB

AIR EMISSION CREDITS - VOC AND NO_x OZONE PRECURSORS



- SMAQMD
✓ BRUCE NIXON
✓ NORM COVELL

NORMAN D. COVELL
Air Pollution Control Officer

SACRAMENTO METROPOLITAN

AIR QUALITY
MANAGEMENT DISTRICT

June 2, 1995

TO: DEIRDRE NURRE (FAX 703-696-0550)

FROM: NORM COVELL

Attached are the two transactions wherein McClellan requested NOx credits from the Military Base Account. The chart reflects the remaining balance of NOx credits available.

In addition, I have attached the balance of ROG (reactive organic gases). No requests for withdrawals of ROG have been made.

fax sent by Lynda Holt
916-386-6182 - office
916-386-7040 - fax

#15

Sacramento Metropolitan Air Quality Management District

State of California

For Agenda of : May 4, 1995

Date: April 18, 1995

To: Board of Directors
Sacramento Metropolitan Air Quality Management District

From: Norm Covell
Air Pollution Control Officer

Subject: **CONSENT MATTER:** Withdrawing of emission reduction credits from the Military Base Account in Rule 205, PRIORITY RESERVE BANK, for use by McClellan Air Force Base

Recommendation Approve the attached resolution (Attachment 1) that transfers nitrogen oxides (NOx) emission reduction credits of the following amounts from the Military Base Account of the Priority Reserve Bank to McClellan Air Force Base:

pounds NOx per calendar quarter			
1 st	2 nd	3 rd	4 th
857	857	857	857

Background On November 3, 1994 the SMAQMD Board of Directors adopted Rule 205, PRIORITY RESERVE BANK. The rule established the Priority Reserve Bank that provides loans of banked emission reduction credits through two subaccounts, the Essential Public Services Account and the Military Base Account.

On January 5, 1995 the SMAQMD Board of Directors transferred 75% of the funding in the Essential Public Services Account to the Military Base Account.

On March 2, 1995 the SMAQMD allocated emission reduction credits from the Military Base Account to McClellan AFB.

APPROVED

BOARD OF DIRECTORS

MAY 4 1995

By Resolution No. 95-0029

By Christine Kane
Clerk of the Board

Continued Next Page

May 4, 1995
Board of Directors
Page 2

**Background
Continued**

Under the provisions of Rule 205, McClellan Air Force Base is requesting a loan of emission reduction credits from the Military Base Account for two additional emissions units at the base: two IC engines that will be used in an experimental CO₂ bead blast cleaning system. The determination of how much credit is needed for these two sources can be found in Attachment 2.

The withdrawing of emission reduction credits from the Military Base Account for use by McClellan Air Force Base would result in the following account balances:

	pounds NOx per calendar quarter			
	1 st	2 nd	3 rd	4 th
Beginning Balance as of 11/3/94	0	0	0	0
Board Transfers from Essential Services Account to Military Base Account Balance as of 1/5/95	28,787	20,552	29,315	23,930
Withdrawal Action to McClellan AFB 3/2/95	1,056	412	238	758
This Withdrawal Action 5/4/95	857	857	857	857
Ending Balance as of 3/2/95	26,874	19,283	28,220	22,315

**Rule require-
ment**

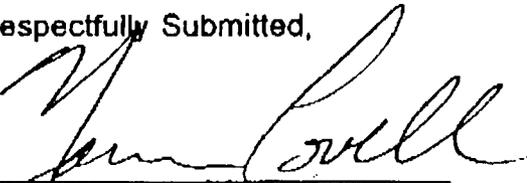
Rule 205 Section 307 states,

"Priority shall be given to applications to the Military Base Account as determined by the Board of Directors of the District, with the recommendation of the Air Pollution Control Officer."

May 4, 1995
Board of Directors
Page 3

Priority determination These are the only pending requests to obtain emission reduction credits from the Priority Reserve Bank, Military Base Account.

Respectfully Submitted,



Norm Covell
Air/Pollution Control Officer

c: Dick Johnson
Bruce Nixon
Aleta Kennard

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT
MILITARY BASE ACCOUNT FOR ROG

	pounds ROG per calendar quarter			
	1 st	2 nd	3 rd	4 th
Beginning Balance as of 11/3/94	0	0	0	0
Board Transfers from Essential Services Account to Military Base Account Balance as of 1/5/95	11,320	8,872	10,606	10,592
Ending Balance as of 6/1/95	11,320	8,872	10,606	10,592

NORMAN D. COVELL
Air Pollution Control Officer

SACRAMENTO METROPOLITAN



AIR QUALITY
MANAGEMENT DISTRICT

June 2, 1995

TO: DEIRDRE NURRE (FAX 703-696-0550)
FROM: NORM COVELL

Attached are the two transactions wherein McClellan requested NO_x credits from the Military Base Account. The chart reflects the remaining balance of NO_x credits available.

In addition, I have attached the balance of ROG (reactive organic gases). No requests for withdrawals of ROG have been made.

fax sent by Lynda Holt
916-386-6182 - office
916-386-7040 - fax

#15

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State of California

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APPROVED

BOARD OF DIRECTORS

MAY 4 1995

By Resolution No. AGM 95-00189

Continued Next Page

By Christina K. Green
Clerk of the Board

May 4, 1995
Board of Directors
Page 2

**Background
Continued**

Under the provisions of Rule 205, McClellan Air Force Base is requesting a loan of emission reduction credits from the Military Base Account for two additional emissions units at the base: two IC engines that will be used in an experimental CO₂ bead blast cleaning system. The determination of how much credit is needed for these two sources can be found in Attachment 2.

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**Rule require-
ment**

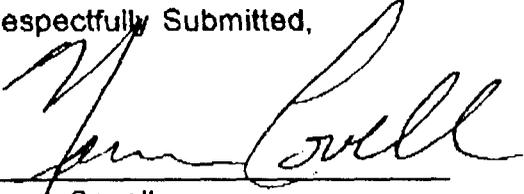
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May 4, 1995
Board of Directors
Page 3

Priority determination These are the only pending requests to obtain emission reduction credits from the Priority Reserve Bank, Military Base Account.

Respectfully Submitted,



Norm Covell
Air Pollution Control Officer

c: Dick Johnson
Bruce Nixon
Aleta Kennard

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT
MILITARY BASE ACCOUNT FOR ROG

	pounds ROG per calendar quarter			
	1 st	2 nd	3 rd	4 th
Beginning Balance as of 11/3/94	0	0	0	0
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Ending Balance as of 6/1/95	11,320	8,872	10,606	10,592

Assumptions: 48 KC 135R's + MacDill

Air Confem App Model v1.1a

~~Also~~

Assumptions: 130=LTD } active duty KC 135R's -
T60=225 }

Facilities: 1542 sq ft squad ops per AC
~~3750 sq ft hangar~~

~~Assumptions~~

Aircraft Emission Factor Assumptions:
Flt LTD's = 450 } ? why make these assumptions, John?
T60's = 950 }

Personnel = 3000 (acc. to Rick)
(wouldn't we have lost people due to
91 BRAC?)

Document Separator

1 June 1995

MEMORANDUM (DRAFT)

To: Frank Cirillo, Air Force Team Leader
Rick DiCamillo, Air Force Senior Analyst

From: Deirdre Nurre, Senior Environmental Analyst 

RE: Aircraft Receiver Options for MacDill

CC: Bob Cook, Interagency Team Leader

This memorandum summarizes air quality constraints of aircraft receiver options for MacDill AFB. Commissioner J.B. Davis had requested clarification of our analysis.

We examined whether MacDill could add 48 KC-135Rs without having to demonstrate conformity with the Clean Air Act. Note that even if a conformity determination were required, it would still be possible to add aircraft, but the Air Force might need to make various operational tradeoffs (retrofitting engines, acquiring emissions offsets from other sources, limiting takeoffs and landings, or other tradeoffs). Note also that question we examined was more specific than asking "how many aircraft can McDill add?"

Analysis of air quality limitations considers a number of variables, including air district attainment status, type of aircraft and associated emissions, model of engine and associated emissions, number of takeoffs and landings, personnel and structures associated with aircraft operation and maintenance, and so forth. In developing its BRAC-95 recommendations the Air Force used software designed to test conformity with the 1995 Clean Air Act. The software, known as Air Conformity Applicability Model v1.1a (ACAM), is available to commission staff for use in our office. The ACAM software was used to develop the air quality analyses presented in the BCEG minutes. The Base Closure Working Group made certain assumptions for modeling purposes, which included number of landings and takeoffs per mission type per year, number of personnel per aircraft and mission type, and so forth. Once an assumption was made it was applied consistently for each aircraft and mission type.

After running the model according to the assumptions recommended by the Air Force BCEG staff, I found that the Air Force could add at least 48 KC-135Rs without triggering the need for a conformity determination.

The assumptions included in my analysis are as follows:

- 48 KC-135Rs added in 1995
- 2500 personnel added with KC-135Rs in 1995
- 96 F-16 C/Ds subtracted by 1994

- 1562 sq. ft. squadron operation facility space per KC-135R
- 450 landings and takeoffs (LTOs) and 950 touch and gos (TGOs) per F-16 per year (standard Air Force assumption)
- 130 LTOs and 225 TGOs per KC-135R per year (standard Air Force assumption)

The user of this information should be aware that these assumptions, if altered, could change the conformity predictions. The user should also be aware that a local air quality district could potentially use different assumptions for modeling purpose and thus arrive at a different conformity prediction. The ACAM model is most useful for making broad predictions. It cannot create the conformity determination itself.

Please let me know if you require additional information.

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 941228-4

FROM: BENATAR, JOE	TO: LYLES
TITLE: CHAIRMAN	TITLE: STAFF DIRECTOR
ORGANIZATION: SUTTER COUNTY BOARD OF SUPERVISORS	ORGANIZATION: DBCRC
INSTALLATION (s) DISCUSSED:	

OFFICE OF THE CHAIRMAN	INFO COPY	ACTION COPY	INT	COMMISSION MEMBERS	INFO COPY	ACTION COPY	INT
SENATOR DIXON				COMMISSIONER			
STAFF DIRECTOR	✓			COMMI			
EXECUTIVE DIRECTOR	✓			COMMI			
GENERAL COUNSEL				COMMI			
MILITARY EXECUTIVE				COMM			
DIR./CONGRESSIONAL LIAISON		①		COMM			
DIR./COMMUNICATIONS							
EXECUTIVE SECRETARIAT				DIREC			
				ARM			
				NAV			
DIRECTOR OF ADMINISTRATION				AIR			
CHIEF FINANCIAL OFFICER				INTI			
DIRECTOR OF TRAVEL				CRC			
DIR./INFO SERVICES DIVISION							

KC 135's: 20 (or less) have
 been left Beale since 1990.
 But are you a copy with
 signature.
 Special op's unit was late for
 Overseas - Forward -
 Number.

TYPE OF ACTION

<input type="checkbox"/>	Prepare Reply for Chairman's Signature
①	Prepare Reply for Staff Director's Signature
<input type="checkbox"/>	Offer Comments and/or Suggestions

Subject/Remarks:

IN SUPPORT OF BEALE AFB; LETTER FROM KENNETH CORBIN TO MR. BENATAR CONCERNING AIR POLLUTION CONTROL.

Due Date: 950104	Routing Date: 941228	Date Originated: 941215	Mail Date:
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FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

Serving the Counties of Yuba and Sutter
463 Palora Avenue, Yuba City, CA 95991-4711
916/634-7659 FAX 916/634-7660 Burn Information 916/741-6299

Kenneth L. Corbin
Air Pollution Control Officer

December 15, 1994

Mr. Joseph Benatar
Chairman, Sutter County Board of Supervisors
1160 Civic Center Boulevard
Yuba City, California 95993

Dear Mr. Benatar;

This letter is with reference to local air quality as it may concern the mission at Beale Air Force Base and the impact, if any, that expansion of Beale Air Force Base may have on local air quality.

The California Air Resources Board has several air monitoring stations located in the Sacramento Valley which measure wind speed, wind direction, and ozone concentration. The monitoring station in Yuba City is located approximately 10 miles west of Beale Air Force Base. That monitoring station is the closest monitoring station to Beale Air Force Base. The California Air Resources Board supplies air quality information from all of its stations to the United States Environmental Protection Agency (EPA) San Francisco office. This information is used in determining the attainment status for each air quality district.

In California there are two ambient air quality standards. The federal standard is twelve (12) parts of ozone per one hundred (100) million and is attained when it is not exceeded more than one day per year, averaged over a three year period. The California standard is nine (9) parts of ozone per one hundred (100) million and it may not be exceeded.

Typical ozone measurements at the Yuba City station show that the highest concentrations are four (4) to five (5) parts ozone per one hundred (100) million in the winter months (November through May) and as high as ten (10) to eleven (11) parts ozone per hundred million in the summer months (June through October).

The California standard of nine (9) parts per one hundred (100) million was exceeded an average of fourteen (14) days per year for calendar years 1991 thorough 1993. Therefore, the local area is designated as a moderate nonattainment area by the state. The federal standard of twelve (12) parts per hundred million has not been exceeded in the last five years. Therefore, the area including Beale Air Force Base is designated as a transitional non-attainment area by the EPA and could be redesignated to an attainment area by the EPA upon application and submittal of supporting data.

A substantial part of the air pollutants measured locally are a result of prevailing southerly winds which carry air pollution from the Sacramento metropolitan area. As the Sacramento area continues implementation of measures contained in the State Implementation Plan (SIP) and/or the Federal Implementation Plan (FIP) for the Sacramento area, our local air quality should show substantial improvement.

The Feather River Air Quality Management District and Beale Air Force Base staffs have worked together cooperatively to resolve any air quality issues and to insure that air quality requirements are met. Because of the continued improvement we have experienced locally, I believe that expansion of Beale Air Force Base can be accomplished without a significant impact on our air quality.

Very truly yours,



Kenneth L. Corbin
Air Pollution Control Officer
Feather River Air Quality Management District

KC/lac

c: Jay Palmquist, Chairman
Yuba County Board of Supervisors

ROOF: CONFORMITY RUNS

S-16-95

Emissions - the air force had to do a
conformity analysis at McGuire
21 KC-10's - wanted to move in.

~~91 BRAC~~

91 BRAC - fighters left McDill →
96 F-16's & C's. went away as result of
prior BRAC actions.

~~Free~~

any states source

Account for determine its potential to emit: compute.
365 days/yr. 24 hrs/day

- Inventory of potential to emit
- Actual emissions: ~~a~~ measure.

Major source: AF has a hard time being treated as one
major source.

- On air force - non-DoD trusts

otr

(Bogor King.)

Different funds sources

Herbert
(special ops)

on

Eglin

~~(AMC)~~

seg- lines of funds, responsibility, etc.

You're charged up the potential to emit.
charged \$\$ for actual emissions.

~~Allow~~

Allow States to decide what should be a major
source.

Beale AFB.

14th of upstairs - 8 PM.

Oda Baslin:

we need to do a maint. demo. (10 yr.)

? Inventory needed: emissions budget (ceiling) needs to factor in growth. So: we need to est. max. growth.

? Is Ann = year in which future year would be assigned.
Recreate - 1990 baseline to allow for expansion.

Anything beyond what I've offered ~~with~~ Ann.
when would be the start → finish period for implementation.

Decrease in emissions which would be proposed.
Offset in decrease in emissions we will

N

Document Separator

5.2.95

To: Frank Cirillo
From: Deirdre Nurre 
CC: Bob Cook
RE: Options of Sending Activities to Beale AFB

Your team is considering various options of sending activities to Beale. You asked for the air quality limitations associated with such decisions.

Attached is a copy of a submission to the BCEG which estimates certain scenarios for Beale. I had looked at this briefly in assessing Kirtland's air quality, and have looked at it in greater detail in assessing Beale's. I discussed these estimates this morning with Capt. Roop, who derived the estimates. We also reviewed the computer model which calculates scenarios.

I understand that the missions which concern us are the McClellan aircraft and associated personnel resulting from '91 and '93 BRAC decisions, the Kirtland SOF, and B-52's from Minot. You will note from the attached table that Beale's acceptance of certain activities will present air conformity challenges, particularly if your team is considering sending all of these missions to Beale. Conformity may be achieved, but it might require a lot of effort. We can discuss what those efforts might entail.

Beale's air quality situation may be more flexible than some other air regions in California. The district is in marginal nonattainment for ozone. It has achieved one year of no violations of air quality standards, and if it achieves two more years EPA could redesignate it to attainment with maintenance status. Redesignation would give the base more flexibility to add activities.

Let me know if you'd like to discuss this table.

This is not need to compare site by site - BCEG CLOSE HOLD "Level Playing Field" (7:21 AM 3/16/95) - real-world best dun possibility - run

What's my option to close it? It may drive

Receiver Bases in Nonattainment Areas for Candidate Closures

closure costs

Gaining Base	BCEG Action (Aircraft & Personnel Realignment)	Conformity Analysis Required	Emissions Above 1990 Baseline	Status (Roop's opinion)
Beale (No KC135E)	Add AFSOC ^{Add AF spirit camp} 10 A10, 17 C130H, 2661 Pax	YES	28 NO _x 0 VOC	G
Beale (No KC135E)	Add AFSOC 10 A10, 17 C130H, 2661 Pax Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	45 NO _x 0 VOC	Y
Beale (No KC135E) "dirty model aircraft" Difference betw. E + R affects VOC output. E can be retro-fitted.	Add AFSOC ^{CH 53} <u>10 A10, 17 C130H, 2661 Pax</u> Add Kirtland SOF ^{HH 60} 4 MC130, 4 HC130, 5 MH53 and 250 Personnel Add SOF Schoolhouse 4 MC130, 6 MH53, 7 HH60, and 1153 Personnel Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	75 NO _x 0 VOC	Y
Beale (No KC135E)	Add AFSOC 10 A10, 17 C130H, 2661 Pax Add 12 B-52 Aircraft 1184 Personnel	YES	129 NO _x 64 VOC	R
Beale (No KC135E)	Add AFSOC 10 A10, 17 C130H, 2661 Pax Add 12 B-52 Aircraft 1184 Personnel Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	146 NO _x 93 VOC	R
Beale (with KC135E)	Add AFSOC 10 A10, 17 C130H, 2661 Pax	YES	70 NO _x 0 VOC	Y
Beale (with KC135E)	Add AFSOC 10 A10, 17 C130H, 2661 Pax Add Kirtland SOF 4 MC130, 4 HC130, 5 MH53 and 250 Personnel Add SOF Schoolhouse 4 MC130, 6 MH53, 7 HH60, and 1153 Personnel Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	89 NO _x 0 VOC	Y
Beale (with KC135E)	Add AFSOC 10 A10, 17 C130H, 2661 Pax Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	99 NO _x 0 VOC	Y

No connection to models

Drop feet - 28 tons NO_x eq & remedy

(FACT) (FACT) (QUANT. EST.) (QUANT. EST.) (ONE EXPERT'S OPINION)
 G= Green (BCEG Emissions are Less Than or Equal to 1990 Baseline)
 Y= Yellow (BCEG Emissions are Within Moderate Range of the 1990 Baseline)
 R= Red (BCEG Emissions are Significantly Greater Than 1990 Baseline)

Minot B-52's
 AFSOC: Kirtland.
 (Capt Roop/CEVC/73360/3/16/95)

Note: These bases no relatively to initial red/yellow/green decisions that appear elsewhere.

BCEG CLOSE HOLD
(3/16/95)

Receiver Bases in Nonattainment Areas
for
Candidate Closures

Gaining Base	BCEG Action (Aircraft & Personnel Realignment)	Conformity Analysis Required	Emissions Above 1990 Baseline	Status
Beale (with KC135E)	Add 12 B-52 Aircraft 1184 Personnel	YES	70 NO _x 119 VOC	Y
Beale (with KC135E)	Add 12 B-52 Aircraft 1184 Personnel Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	108 NO _x 143 VOC	R
Beale (with KC135R)	Add 12 B-52 Aircraft 1184 Personnel	YES	88 NO _x 0 VOC	Y
Beale (with KC135R)	Add AFSOC 10 A10, 17 C130H, 2661 Pax	YES	97 NO _x 0 VOC	Y
Beale (with KC135R)	Add AFSOC 10 A10, 17 C130H, 2661 Pax Add Kirtland SOF 4 MC130, 4 HC130, 5 MH53 and 250 Personnel Add SOF Schoolhouse 4 MC130, 6 MH53, 7 HH60, and 1153 Personnel Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	107 NO _x 0 VOC	R
Beale (with KC135R)	Add AFSOC 10 A10, 17 C130H, 2661 Pax Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	114 NO _x 0 VOC	R
Beale (with KC135R)	Add 12 B-52 Aircraft 1184 Personnel Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	126 NO _x 85 VOC	R
Cannon AFB	Add Kirtland SOF	NO	N/A	G
Dobbins	Add Pittsburgh AFRES 4 C130H and 207 personnel	NO	N/A	G
Dover AFB	Add 14 C-5A Aircraft with 958 Personnel	YES	180 NO _x 82 VOC	R
Edwards AFB	Add 8 KC-135E Aircraft with 570 Personnel	YES	153 NO _x 0 VOC	R
Edwards AFB	Add 12 KC-135E Aircraft with 1120 Personnel	YES	197 NO _x 0 VOC	R

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R= Red (BCEG Emissions are Significantly Greater Than 1990 Baseline)

BCEG CLOSE HOLD
(7:21 AM 3/16/95)

Receiver Bases in Nonattainment Areas
for
Candidate Closures

Gaining Base	BCEG Action (Aircraft & Personnel Realignment)	Conformity Analysis Required	Emissions Above 1990 Baseline	Status
Falcon AFB (See Peterson)	Add Onizuka Space with 955 Personnel	YES	291 CO	Y
Falcon AFB (See Peterson)	Add LA Lab with FFRDC with 4600 Personnel	YES	1623 CO	R
Falcon AFB (See Peterson)	Add Onizuka Space with 955 Personnel Add LA Lab with FFRDC with 4600 Personnel	YES	1972 CO	R
Fort Monmouth	Add Griffiss/Rome Lab with 869 Personnel	NO	N/A	G
Fort Monmouth	Add Griffiss/Rome Lab with 869 Personnel Add Hanscom ESC (w/o FFRDC) with 2156 Personnel	YES	UNKNOWN	UNKN
Fort Monmouth	Add Griffiss/Rome Lab with 869 Personnel Add Hanscom ESC (w/o FFRDC) with 2156 Personnel Add LA AFB (w/ Norton) with 2600 Personnel	YES	UNKNOWN	UNKN
Hanscom AFB	Add Griffiss/Rome Lab with 869 Personnel	NO	N/A	G
Hanscom AFB	Add Wright Lab with 144 Personnel Add SPAWAR with 931 Personnel	NO	N/A	G
Hill AFB	Add Kirtland with 1172 Personnel	NO	N/A	G
Hill AFB	Add LA AFB and Kirtland with 3353 Personnel	NO	N/A	G
Hill AFB	Add 8 KC135E with 570 Personnel	YES	0 NO _x 0 VOC	G
Kirtland AFB	Add Scor. Comm Center with 635 Personnel	YES	180 CO	Y
Kirtland AFB	Add LA AFB with Norton with 2600 Personnel	YES	424 CO	R
Los Angeles AFB	Add Edwards (Space Launch Veh) with 240 Personnel Add NSGCD (Navy Tasker) with 32 Personnel	NO	N/A	G

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**BCEG CLOSE HOLD
(3/16/95)**

**Receiver Bases in Nonattainment Areas
for
Candidate Closures**

Gaining Base	BCEG Action (Aircraft & Personnel Realignment)	Conformity Analysis Required	Emissions Above 1990 Baseline	Status
MacDill AFB	Add 24 KC-135R Aircraft with 1413 Personnel	YES	0 NO _x 0 VOC	G
MacDill AFB	Add 12 KC135R (Malmstrom) with 533 Personnel Add 8 KC135R (Bergstrom) with 570 Personnel Add 12 KC135R (Robins) with 2 VC137B & 546 Pax	YES	0 NO _x 0 VOC	G
March AFB	Add 8 KC-135E Aircraft with 570 Personnel	YES	193 VOC 403 CO	R
March AFB	Add 8 KC-135E Aircraft with 570 Personnel Add 14 C-5 Aircraft with 958 Personnel	YES	264 VOC 817 CO	R
March AFB	Add AFSOC	YES	840 CO	R
March AFB	Add 8 KC135E with 570 Personnel Add 14 C5 with 958 Personnel	YES	264 VOC 817 CO	R
McChord AFB	Add Kirtland NCO Academy	YES	21 CO	G
McChord AFB	Add 12 B-52H Aircraft with 1184 Personnel	YES	114 NO _x 369 VOC 1328 CO	R
McClellan AFB	8 KC135E Remain in Place	NO	N/A	G
McClellan AFB	Add Wright Lab with 144 Personnel Add SPAWAR with 931 Personnel	NO	N/A	G
McClellan AFB	Add LA AFB with 2158 Personnel	YES	0 NO _x 0 VOC	G
Peterson AFB	Add Pittsburgh AFRES with 4 C130, 5 CH53, & 207 Pax	YES	6 CO	G
Peterson AFB	Add Pittsburgh AFRES with 4 C130, 5 CH53, & 207 Pax Add Lowry (21st Space Wing) with 49 Personnel	YES	24 CO	G

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BCEG CLOSE HOLD
(7:21 AM3/16/95)

Receiver Bases in Nonattainment Areas
for
Candidate Closures

Gaining Base	BCEG Action (Aircraft & Personnel Realignment)	Conformity Analysis Required	Emissions Above 1990 Baseline	Status
Peterson AFB	Add Pittsburgh AFRES with 4 C130, 5 CH53, & 207 Pax Add Lowry (21st Space Wing) with 49 Personnel Add Onizuka Space with 955 Personnel	YES	373 CO	Y
Peterson AFB	Add Pittsburgh AFRES with 4 C130, 5 CH53, & 207 Pax Add Lowry (21st Space Wing) with 49 Personnel Add Onizuka Space with 955 Personnel Add LA Lab with FFRDC with 4600 Personnel	YES	2054 CO	R
Peterson AFB	Add Onizuka Space with 955 Personnel	YES	291 CO	Y
Peterson AFB	Add Onizuka Space with 955 Personnel	YES	291 CO	R
Peterson AFB	Add LA Lab with FFRDC with 4600 Personnel	YES	1623 CO	R
Peterson AFB	Add Onizuka Space with 955 Personnel Add LA Lab with FFRDC with 4600 Personnel	YES	1972 CO	R
Peterson AFB	Add Kirtland with 1172 Personnel	YES	390 CO	R
Peterson AFB	Add Kirtland and LA AFB with 3353 Personnel	YES	1187 CO	R
Travis AFB	Add Kirtland NCO Academy	YES	21 CO	G
WPAFB	Add Springfield ANG with 12 F16C/D and 78 Pax Add Mesa Lab (William Redirect) with 160 personnel Add Brooks AFB with 2293 Personnel	YES	30 NO _x 0 VOC	G

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R= Red (BCEG Emissions are Significantly Greater Than 1990 Baseline)

AIR RESOURCES BOARD.

Lynn Terry

5/4/95.

Sutter & Yuba = Feather -

Violation Fed Standard - Sacto geographic basin.

Other part of Sacto

eligible to redesignate that the northern part of the district is not attainment.

No problem -

Clarify for maint. status for ozone.

Clean from '87 thru '91 - so before the EPA's order to determine transitional one.

CAA allows for some change & non attainment areas if you can show a

~~pendata~~ should not have ever been designated

Get them out of the conformity

Fast-track way to get

No problem showing log for main for south.

New emission for new activities at Beale.

Enough add'l reductions -

Calif. motor vehicles →
vehicle turnover

It's OK to rely on these changes & get to your goal.

Term -
(916) 322-3646

1994.

Edwards - wanted to
SJ valley non-attainment -
Edwards should now have been put it into nonattainment status.

Package - redesignation would get to

Year + a half - minimum - EPA has to get
propose proposal - get final notice back
and
Fed Reg.

3-4

> Direct final rulemaking.

If they don't expect this to be controversial,
they ~~are~~ shouldn't

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

Serving the Counties of Yuba and Sutter
463 Palora Avenue, Yuba City, CA 95991-4711
916/634-7659 FAX 916/634-7660 Burn Information 916/741-6299

Kenneth L. Corbin
Air Pollution Control Officer

December 15, 1994

Mr. Joseph Benatar
Chairman, Sutter County Board of Supervisors
1160 Civic Center Boulevard
Yuba City, California 95993

Dear Mr. Benatar;

This letter is with reference to local air quality as it may concern the mission at Beale Air Force Base and the impact, if any, that expansion of Beale Air Force Base may have on local air quality.

The California Air Resources Board has several air monitoring stations located in the Sacramento Valley which measure wind speed, wind direction, and ozone concentration. The monitoring station in Yuba City is located approximately 10 miles west of Beale Air Force Base. That monitoring station is the closest monitoring station to Beale Air Force Base. The California Air Resources Board supplies air quality information from all of its stations to the United States Environmental Protection Agency (EPA) San Francisco office. This information is used in determining the attainment status for each air quality district.

In California there are two ambient air quality standards. The federal standard is twelve (12) parts of ozone per one hundred (100) million and is attained when it is not exceeded more than one day per year, averaged over a three year period. The California standard is nine (9) parts of ozone per one hundred (100) million and it may not be exceeded.

Typical ozone measurements at the Yuba City station show that the highest concentrations are four (4) to five (5) parts ozone per one hundred (100) million in the winter months (November through May) and as high as ten (10) to eleven (11) parts ozone per hundred million in the summer months (June through October).

The California standard of nine (9) parts per one hundred (100) million was exceeded an average of fourteen (14) days per year for calendar years 1991 through 1993. Therefore, the local area is designated as a moderate nonattainment area by the state. The federal standard of twelve (12) parts per hundred million has not been exceeded in the last five years. Therefore, the area including Beale Air Force Base is designated as a transitional non-attainment area by the EPA and could be redesignated to an attainment area by the EPA upon application and submittal of supporting data.

① Is it in a non-attainment area or isn't it?

② why would we be worried about fed standards but not about Calif?

③ why would you look at it, they'd need to do conformity right?

④ How much add'l activity would he do?

• Lynn Terry - Jeanne

(916) 324-4150 }
322-2739 }

In CA, inventory is usually done cont by cont.

will

Limited redesignation - want plan.

if the quality is limited,

compliance is assumed up to day a budget. So you don't have to quantify it. Presupposes that it wouldn't violate the standard.

- Liaison person → David Atabashian - (916) 322-4155
- Get an idea of how much growth they
- ARB - how large is the inventory?

• They would probably build in some growth anyway you look at it.

• we need to know inventory

could stand over 10 year period.

"design value" based on 92-94 data, but.

Beale want it

Later in year - (new plan)

Anyway you slice it, Beale is not yet in compliance, & when they submit the data it would take them ~~at least 2-3 months~~ a few months to get it.

Can the quality be 11d? If not, they'd have to do a 12-year plan, they'd be regulated at Beale as to how much new stuff they could take.

attainment

DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

RECORD OF INTERVIEW

DATE: April 24, 1995
TIME: 11:00 a.m.-11:45 a.m.
PLACE: 302 Airlift Wing, Air Force Reserve, Peterson AFB, Colorado Springs, Colorado
PARTICIPANTS: Brigadier General Walter T. Hatcher, USAF, 302 Airlift Wing/CC, tel.: DSN 834-7309
Colonel Dennis Thompson, USAF, 302 OG/CC (Operations), tel.: DSN 834-4515
Colonel Richard Koepp, USAF, 302 LG/CC (Logistics), tel.: DSN 834-7559
Lieutenant Colonel Jim Starr, USAF, 302 Air Wing/XP (Plans), tel.: DSN 834-7347
Lieutenant Colonel Lee Maddox, USAF, 21 Strategic Wing/XPR (Plans and Resources), tel.: DSN 834-6253
Lieutenant Colonel Jerry Straw, Headquarters, Air Force Space Command/XPPB (Plans, Programming, and Budget), tel.: DSN 692-5947
Randall Gililland, 302 Air Wing/CCE (Executive), tel.: DSN 834-4546
Chief Master Sergeant Carolyn A. Rice, USAF, 302 Missile Support Squadron/DPM (Director of Personnel for Manpower), tel.: DSN 834-7227
Mark A. Pross, Senior Analyst, Air Force Team, Defense Base Closure and Realignment Commission, tel.: (703) 696-0504, ext. 166

PURPOSE: To discuss the impact on Peterson AFB, Colorado, as a receiver base, of the DoD recommendation to (1) close Greater Pittsburgh International Airport Air Reserve Station, (2) inactivate the 911th Airlift Wing (AW), and (3) distribute 911th AW C-130 aircraft to Air Force Reserve C-130 units at Dobbins AFB, Georgia, and Peterson AFB.

INFORMATION PROVIDED:

Additional Mission and Current Authorization

In addition to its AFRES mission, the 302 Airlift Wing (AW) has a forest firefighting mission. The 302 AW is reimbursed by the U.S. Forestry Service for services it provides. The 302 AW uses two modular airborne firefighting systems that are placed in the C-130s. The 302 AW currently is authorized four HC-130 aircraft and 12 C-130 aircraft.

(714) 824 7695 merlon.

Analysis: costs \$

12:56 PM Fri my David O.

1:15 PM

Ability of DoD to use BRAC \$:

Does BRAC ever get an "infusion" of new cash? yes
Does Congress ~~appropriation~~ make an appropriation
for BRAC for all time & when it's over it's
over? NO

- Military com reach bank & FB 92 money (for
example) & grab it & spend it. UP UNTIL 5 YEARS
LATER.

- Each year ~~the~~ Congress appropriates add'l \$\$\$ &
spend on BRAC funding for all rounds (BRAC I, II, III.)

~~you~~

costs of cleanup:

Total projected costs, presently:

cost to complete BRAC	: \$ 705,500,000
cost to clean up	: \$ 130,661,000
cost of 20-yr ^{DoD} BRAC just signed	: \$ 78 M

Community sez: ^{to} cleanup under a closure
scenario: \$ 11 Billion.

A substantial part of the air pollutants measured locally are a result of prevailing southerly winds which carry air pollution from the Sacramento metropolitan area. As the Sacramento area continues implementation of measures contained in the State Implementation Plan (SIP) and/or the Federal Implementation Plan (FIP) for the Sacramento area, our local air quality should show substantial improvement.

The Feather River Air Quality Management District and Beale Air Force Base staffs have worked together cooperatively to resolve any air quality issues and to insure that air quality requirements are met. Because of the continued improvement we have experienced locally, I believe that expansion of Beale Air Force Base can be accomplished without a significant impact on our air quality.

Very truly yours,



Kenneth L. Corbin
Air Pollution Control Officer
Feather River Air Quality Management District

KC/lac

c: Jay Palmquist, Chairman
Yuba County Board of Supervisors

This is not used to compare site by site. *Once you vote to level playing field - real-world had done possibility - run*
BCEG CLOSE HOLD (7:21 AM 3/16/95)

is my option to it? *it may drive*

Receiver Bases in Nonattainment Areas for Candidate Closures

Gaining Base	BCEG Action (Aircraft & Personnel Realignment)	Conformity Analysis Required	Emissions Above 1990 Baseline	Status (Roop's opinion)
Beale (No KC135E)	Add AFSOC <i>Add AF spirit camp</i> 10 A10, 17 C130H, 2661 Pax	YES	28 NO _x 0 VOC	G
Beale (No KC135E)	Add AFSOC 10 A10, 17 C130H, 2661 Pax Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	45 NO _x 0 VOC	Y
Beale (No KC135E)	Add AFSOC <i>CH 53</i> <u>10 A10, 17 C130H, 2661 Pax</u> Add Kirtland SOF <i>HH60</i> 4 MC130, 4 HC130, 5 MH53 and 250 Personnel Add SOF Schoolhouse 4 MC130, 6 MH53, 7 HH60, and 1153 Personnel Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	75 NO _x 0 VOC	Y
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Beale (No KC135E)	Add AFSOC 10 A10, 17 C130H, 2661 Pax Add 12 B-52 Aircraft 1184 Personnel Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	146 NO _x 93 VOC	R
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Beale (with KC135E)	Add AFSOC 10 A10, 17 C130H, 2661 Pax Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	99 NO _x 0 VOC	Y

No connection to models

Roop felt 28 tons NO_x easy to remedy

what close closure costs?

G= Green (BCEG Emissions are Less Than or Equal to 1990 Baseline)
 Y= Yellow (BCEG Emissions are Within Moderate Range of the 1990 Baseline)
 R= Red (BCEG Emissions are Significantly Greater Than 1990 Baseline)

Minot B-52's
 AFSOC: Kirtland
 (Capt Roop/CEVC/73360/3/16/95)

Note: these are no relatively initial red/y green decisions

**BCEG CLOSE HOLD
(3/16/95)**

**Receiver Bases in Nonattainment Areas
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Candidate Closures**

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Beale with KC135E	Add 12 B-52 Aircraft 1184 Personnel	YES	70 NO _x 119 VOC	Y
Beale KC135E	Add 12 B-52 Aircraft 1184 Personnel Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	108 NO _x 143 VOC	R
(with Beale)	Add 12 B-52 Aircraft 1184 Personnel	YES	88 NO _x 0 VOC	Y
(with Beale)	Add AFSOC 10 A10, 17 C130H, 2661 Pax	YES	97 NO _x 0 VOC	Y
	Add AFSOC 10 A10, 17 C130H, 2661 Pax Add Kirtland SOF 4 MC130, 4 HC130, 5 MH53 and 250 Personnel Add SOF Schoolhouse 4 MC130, 6 MH53, 7 HH60, and 1153 Personnel Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	107 NO _x 0 VOC	R
KC135R	Add AFSOC 10 A10, 17 C130H, 2661 Pax Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	114 NO _x 0 VOC	R
Beale (with KC135R)	Add 12 B-52 Aircraft 1184 Personnel Add ANG (Moffett) 4 C130H, 5CH53, 255 Pax	YES	126 NO _x 85 VOC	R
Cannon AFB	Add Kirtland SOF	NO	N/A	G
Dobbins	Add Pittsburgh AFRES 4 C130H and 207 personnel	NO	N/A	G
Dover AFB	Add 14 C-5A Aircraft with 958 Personnel	YES	180 NO _x 82 VOC	R
Edwards AFB	Add 8 KC-135E Aircraft with 570 Personnel	YES	153 NO _x 0 VOC	R
Edwards AFB	Add 12 KC-135E Aircraft with 1120 Personnel	YES	197 NO _x 0 VOC	R

G= Green (BCEG Emissions are Less Than or Equal to 1990 Baseline)
 Y= Yellow (BCEG Emissions are Within Moderate Range of the 1990 Baseline)
 R= Red (BCEG Emissions are Significantly Greater Than 1990 Baseline)

**BCEG CLOSE HOLD
(7:21 AM3/16/95)**

**Receiver Bases in Nonattainment Areas
for
Candidate Closures**

Gaining Base	BCEG Action (Aircraft & Personnel Realignment)	Conformity Analysis Required	Emissions Above 1990 Baseline	Status
Falcon AFB (See Peterson)	Add Onizuka Space with 955 Personnel	YES	291 CO	Y
Falcon AFB (See Peterson)	Add LA Lab with FFRDC with 4600 Personnel	YES	1623 CO	R
Falcon AFB (See Peterson)	Add Onizuka Space with 955 Personnel Add LA Lab with FFRDC with 4600 Personnel	YES	1972 CO	R
Fort Monmouth	Add Griffiss/Rome Lab with 869 Personnel	NO	N/A	G
Fort Monmouth	Add Griffiss/Rome Lab with 869 Personnel Add Hanscom ESC (w/o FFRDC) with 2156 Personnel	YES	UNKNOWN	UNKN
Fort Monmouth	Add Griffiss/Rome Lab with 869 Personnel Add Hanscom ESC (w/o FFRDC) with 2156 Personnel Add LA AFB (w/ Norton) with 2600 Personnel	YES	UNKNOWN	UNKN
Hanscom AFB	Add Griffiss/Rome Lab with 869 Personnel	NO	N/A	G
Hanscom AFB	Add Wright Lab with 144 Personnel Add SPAWAR with 931 Personnel	NO	N/A	G
Hill AFB	Add Kirtland with 1172 Personnel	NO	N/A	G
Hill AFB	Add LA AFB and Kirtland with 3353 Personnel	NO	N/A	G
Hill AFB	Add 8 KC135E with 570 Personnel	YES	0 NO _x 0 VOC	G
Kirtland AFB	Add Scott Comm Center with 635 Personnel	YES	180 CO	Y
Kirtland AFB	Add LA AFB with Norton with 2600 Personnel	YES	424 CO	R
Los Angeles AFB	Add Edwards (Space Launch Veh) with 240 Personnel Add NSGCD (Navy Tasker) with 32 Personnel	NO	N/A	G

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Y= Yellow (BCEG Emissions are Within Moderate Range of the 1990 Baseline)
R= Red (BCEG Emissions are Significantly Greater Than 1990 Baseline)

**BCEG CLOSE HOLD
(3/16/95)**

**Receiver Bases in Nonattainment Areas
for
Candidate Closures**

Gaining Base	BCEG Action (Aircraft & Personnel Realignment)	Conformity Analysis Required	Emissions Above 1990 Baseline	Status
MacDill AFB	Add 24 KC-135R Aircraft with 1413 Personnel	YES	0 NO _x 0 VOC	G
MacDill AFB	Add 12 KC135R (Malmstrom) with 533 Personnel Add 8 KC135R (Bergstrom) with 570 Personnel Add 12 KC135R (Robins) with 2 VC137B & 546 Pax	YES	0 NO _x 0 VOC	G
March AFB	Add 8 KC-135E Aircraft with 570 Personnel	YES	193 VOC 403 CO	R
March AFB	Add 8 KC-135E Aircraft with 570 Personnel Add 14 C-5 Aircraft with 958 Personnel	YES	264 VOC 817 CO	R
March AFB	Add AFSOC	YES	840 CO	R
March AFB	Add 8 KC135E with 570 Personnel Add 14 C5 with 958 Personnel	YES	264 VOC 817 CO	R
McChord AFB	Add Kirtland NCO Academy	YES	21 CO	G
McChord AFB	Add 12 B-52H Aircraft with 1184 Personnel	YES	114 NO _x 369 VOC 1328 CO	R
McClellan AFB	8 KC135E Remain in Place	NO	N/A	G
McClellan AFB	Add Wright Lab with 144 Personnel Add SPAWAR with 931 Personnel	NO	N/A	G
McClellan AFB	Add LA AFB with 2158 Personnel	YES	0 NO _x 0 VOC	G
Peterson AFB	Add Pittsburgh AFRES with 4 C130, 5 CH53, & 207 Pax	YES	6 CO	G
Peterson AFB	Add Pittsburgh AFRES with 4 C130, 5 CH53, & 207 Pax Add Lowry (21st Space Wing) with 49 Personnel	YES	24 CO	G

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Y= Yellow (BCEG Emissions are Within Moderate Range of the 1990 Baseline)

R= Red (BCEG Emissions are Significantly Greater Than 1990 Baseline)

BCEG CLOSE HOLD
(7:21 AM3/16/95)

**Receiver Bases in Nonattainment Areas
for
Candidate Closures**

Gaining Base	BCEG Action (Aircraft & Personnel Realignment)	Conformity Analysis Required	Emissions Above 1990 Baseline	Status
Peterson AFB	Add Pittsburgh AFRES with 4 C130, 5 CH53, & 207 Pax Add Lowry (21st Space Wing) with 49 Personnel Add Onizuka Space with 955 Personnel	YES	373 CO	Y
Peterson AFB	Add Pittsburgh AFRES with 4 C130, 5 CH53, & 207 Pax Add Lowry (21st Space Wing) with 49 Personnel Add Onizuka Space with 955 Personnel Add LA Lab with FFRDC with 4600 Personnel	YES	2054 CO	R
Peterson AFB	Add Onizuka Space with 955 Personnel	YES	291 CO	Y
Peterson AFB	Add Onizuka Space with 955 Personnel	YES	291 CO	R
Peterson AFB	Add LA Lab with FFRDC with 4600 Personnel	YES	1623 CO	R
Peterson AFB	Add Onizuka Space with 955 Personnel Add LA Lab with FFRDC with 4600 Personnel	YES	1972 CO	R
Peterson AFB	Add Kirtland with 1172 Personnel	YES	390 CO	R
Peterson AFB	Add Kirtland and LA AFB with 3353 Personnel	YES	1187 CO	R
Travis AFB	Add Kirtland NCO Academy	YES	21 CO	G
WPAFB	Add Springfield ANG with 12 F16C/D and 78 Pax Add Mesa Lab (William Redirect) with 160 personnel Add Brooks AFB with 2293 Personnel	YES	30 NO _x 0 VOC	G

G= Green (BCEG Emissions are Less Than or Equal to 1990 Baseline)
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R= Red (BCEG Emissions are Significantly Greater Than 1990 Baseline)

Action items: Go to Roop & look at the model.

OUTLINE FOR MEETING 3.17.95

Nurre, Cantwell, Echols, Roop

DBCRC AND AIR FORCE STAFF

RE: AIR FORCE APPROACH ON AIR QUALITY COMPLIANCE FOR CONSIDERATION IN BRAC 95

Tell us what you want us to know; I'll ask questions. I won't have an evaluation of your process today.

1. Walk through Air Force approach and methodology

- ✓ Red through green - only applied after closure scenarios were contemplated.
- ✓ Use of baseline - FY 1990's as specified by EPA. "??" - such problems for prior year.
- conformity -- why an assumption that credits needed?
- other concerns in addition to conformity? - ~~all~~ all factors in to Tier II. All air quality criteria was factored into Factor II - not just conformity
- relationship of air quality to concerns to 8 criteria in total
- ✓ were discussions held outside AF to determine conform.? no - conformity only factored into the second part of the analysis: closure scenarios.

2. Discuss Roop's handout on air decisionmaking

3. Discuss BCEG minutes & documentation

4. Discuss issues specific to Kirtland

BRIAN: Even if you took base air quality out, ~~40%~~ ^{40%} would be "yellow plus".

Frank: what do I need to know about classified info?

MEG

How can you so "red/yellow/green" and be had but fear that it's a stopper on the other? Inconsistent.....

- Questions that arise:
- why "40%"? if it's such a "stopper", why are you moving ~~the~~ missions into at least 5 non attainment areas?
 - why no exploration of possibility of getting permits, conformity, etc. - only emissions budgets/offsets were contemplated. Did the numbers match up? Yes/no. [Inconsistent with Army which relied on assurances that Missouri would be able to get permits.]
 - why a 1990 baseline? Did EPA really tell them to go by a 1990 emissions budget?
 - if US EPA had such a beef over "MODELS" at Kirtland, why did they approve the SIP? ^{is} ~~is~~ 1990 emissions budget.
 - Roop's closure scenario analysis: he has no defined cutoffs. But maybe it doesn't matter because you can never not find a place to relocate a base.

George Ledbetter -

PACE - AF civil engineers -
Generalists.

1993 - McGinnis
Trans
Air mobility wing.

moving aircraft in the green.

1990: Filt. for shorts -

in 1995 what short we do w/ air quality.

CAUTION 2 issue.

Air space quality -

move air quality + caution!

substitute weight - 40% air space movement.
is with 40%.

8 caution grids:

Timing of

Caution when red. Green ~~the~~ yellow +
for 1+ II.

Form



Classified AF action -
versus BARR ??

This didn't factor in + doesn't look at the activity
in the segments of BARR

1990 concept & principles

CO = people
C2 = ~~plans~~ plans

- indirect -
- direct -
- "indirect" -

2 - arguments is ~~so~~ so important as all the
of the ~~activity~~ activity in a case.
facilities

40% - "show steps" a subjective decision
BC3G

Impact a current point or future source.
Attendant issues was attended.

DON BRAC 95 Analytical Approach

Description and Examples

Introduction

This paper describes the analytical approach the Department of the Navy Base Structure Evaluation Committee (BSEC) used in its deliberations to develop recommendations for base closures and realignments. This approach was applied to all types of facilities, thus, providing a consistent methodology for use during the BSEC deliberations. The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, establishes the legal requirements that each military department's base closure and realignment process must meet. The law requires that the process followed by a department be consistently and fairly applied to all categories of installations. Within each category, installations are to be treated equally. The approach described here satisfies these requirements. This approach emphasizes procedure and the use of quantitative methods to exploit quantitative data.

Optimal sets of installations were identified using a mathematical programming approach. By varying some parameters for these models, the BSEC could do sensitivity analyses. Alternative solution sets, besides the optimal solution set, were then reviewed by the BSEC. These solutions served as inputs to the process of identifying closure and realignment scenarios for COBRA¹ and economic impact analyses.

The remainder of this paper presents a description of the analytical approach and examples of its application. Two fictional examples are used to explain the approach. One is a naval air station case that is typical of operational bases. The other is a naval shipyard case that is typical of industrial facilities. The paper ends with a summary.

Analytical Approach

The analytical approach went through three stages:

1. Perform capacity analysis.
2. Assess military value.
3. Perform configuration analysis.

Capacity Analysis

A capacity analysis was conducted in each subcategory² to decide if excess capacity exists in the subcategory. If the BSEC determined that the subcategory had excess capacity, installations in the subcategory would be assessed for military value and a configuration analysis would be done for the category.

Throughput measures were used to measure capacity. For example, the maximum number of students that could be processed in a year could be the measure for a training center. For operational air stations, the number of squadron modules available for hosting aircraft squadrons is the measure of capacity. The number of CG-sized ships that can be homeported is the measure for naval stations. The number of technical workyears performed is the measure for technical centers. These measures, although complex and sometimes difficult to assess, avoid the false sense of precision that follows from simple measures such as square feet of floor or ramp space or linear feet of pier space.

¹ Cost of Base Realignment Actions model. This is the DOD-mandated model for estimating the costs and savings associated with a closure and/or realignment scenario.

² Major categories included Operational Support, Industrial Support, Technical Centers and Laboratories, Education and Training, and Personnel Support and Administration. Subcategories include such installation types as training air stations (Education and Training), shipyards (Industrial Support), operational air stations (Operational Support), and administrative activities (Personnel Support and Administration).

Comparing the total capacity in all of the installations to the future total requirement determined the excess capacity in a subcategory of that type. A positive difference between these two numbers suggests excess capacity. The presence of excess capacity in a subcategory does not necessarily imply that a closure is possible. Many factors will ultimately determine whether future requirements can be assigned to a lesser number of installations. The examples will further illustrate this idea.

Assessing Military Value

The BRAC process specifies four criteria for assessing military value. The four criteria are as follows:

- **Readiness** - current and future mission requirements and operational readiness.
- **Facilities** - availability and conditions of land, facilities, and air space.
- **Mobilization** - ability to accommodate contingency, mobilization, and future force requirements.
- **Cost and manpower** - cost and manpower implications.

For each subcategory, a set of yes/no or true/false questions was created based upon the information available in the data calls. An installation would be given credit for a question if the answer to the question for that installation was true or affirmative. The BSEC reviewed the list of questions for each subcategory and made changes as necessary.

For each subcategory the BSEC assigned a positive value to each of the military value criteria. The values always sum to 100. The value assigned to a criterion reflected the relative importance that the BSEC gave to that criterion in assessing the military value of installations in that subcategory. For each question, the BSEC determined for which of the four criteria the question was relevant. A question could be relevant to more than one criterion.

The BSEC also assigned a relative score to each question or statement. The relative score was always a number from one to ten. The total weight assigned to a question was computed as follows:

For each of the four military value criteria, for which the question is relevant, do the following. Multiply the relative score assigned to the question by the value assigned to the criteria and divide by the sum of the relative scores of all questions relevant to that criteria. Repeat this calculation for each of the relevant criteria for the question. The sum of these calculated numbers is the total weight associated with the question.

Table 1 shows an example of calculating military value question weights. In this example the value given to the readiness criterion is 40, the facilities criterion 30, the mobilization criterion 20, and the cost and manpower criterion 10. Question A is relevant to the readiness and facilities criteria, but not to the remaining two criteria. The weight that question A receives for the readiness criterion is calculated as

$$40 \times \frac{10}{10 + 5 + 1} = 25$$

the denominator of the second term in the product is the sum of the scores from all of

the questions that are relevant to the readiness criterion. Note that the weights in the readiness column sum to the value given to the readiness criterion. Note also that the weights in a column corresponding to a criterion are proportional to the scores in the relative score column. Total weights for questions are, usually, not proportional to the relative scores. For example, the weights computed for questions C and D are not proportional to the relative scores for these two questions. It should be noted that the BSEC completed the calculation of question weights before the answers to the questions for specific installations were made available to them.

Table 1. Military value question weights.

Question	Military value criteria				Relative score	Total weight
	Readiness	Facilities	Mobilization	Cost and manpower		
	Criteria value					
	40	30	20	10		
A	25.00	27.27			10	52.27
B	12.50		14.29		5	26.79
C			5.71	6.67	2	12.38
D	2.50	2.73		3.33	1	8.56
Totals	40.00	30.00	20.00	10.00		100.00

Table 2 carries this example further by applying the weights to a set of three installations. This table shows the questions for which each installation received credit. The military value for installation I is computed as $1 \times 52.27 + 0 \times 26.79 + 1 \times 12.38 + 1 \times 8.56 = 73.21$.

Table 2. Military value matrix.

Question	Question weight	Installation		
		I	II	III
A	52.27	1	0	1
B	26.79	0	1	1
C	12.38	1	1	0
D	8.56	1	1	0
Military value	100.00	73.21	47.73	79.06

Configuration Analysis

Configuration analysis is a mathematical programming approach to finding the set of installations in a subcategory that can meet future requirements, maintain average military value, and minimize the total retained capacity. This approach minimizes capacity, rather than cost, because obtaining comparable cost data for activities is exceedingly difficult. The BSEC considered capacity an acceptable surrogate for cost.

This stage of the analysis is called *configuration analysis* because the configuration of retained bases or installations may be constrained by operational necessity. For example, fleet assets must be distributed between east and west coast facilities regardless of military value assessments. The process of assessing the military value of each installation in a subcategory is myopic in that it does not consider the constraints that may exist on the assignment of supported units to the installations.

The basic capacity minimization problem has the following form:

$$\text{minimize } \sum_{j=1}^n c_j Z_j \text{ (Minimize total capacity.)}$$

subject to:

$\sum_{j=1}^n U_{ij} = K_i$ for all i (Number of units assigned must equal the number needing assignment),

$\sum_{i=1}^m r_{ki} U_{ij} \leq R_{kj} Z_j$ for all j and $k \in \{1 \dots l\}$ (Each installation has limited resources.),

$\sum \hat{v}_j Z_j \geq 0$ (Maintain average military value.),

where

n = the number of installations in the subcategory,

m = the number of types of units to be assigned to installations,

l = the number of resource types,

$Z_j = 1$ if installation j is retained and 0 otherwise,

U_{ij} = the number of units of type i assigned to installation j ,

c_j = the capacity of installation j ,

K_i = the number of units of type i that must be assigned.

r_{ki} = the amount of resource type k required by each unit of type i ,

R_{kj} = the amount of resource k available at installation j , and

\hat{v}_j = the military value of installation j minus the average military value for all of the installations in the subcategory.

The decision variables in this mathematical program are the Z_j and U_{ij} variables. The optimal solution to this mathematical program has the following characteristics:

- the total retained capacity is as small as possible,
- all units have been assigned to an installation,
- no installation has more units assigned than it can support in terms of resources, and
- the average military value of the retained installations is equal to or greater than the average military value for all of the installations in the subcategory.

Note that the optimal solution to this formulation may retain an installation having a lower military value than one excluded from the solution. This may happen because the process of assessing military value for individual installations cannot consider all of the basing restrictions such as dividing squadrons between coasts.

The actual configuration models used by the BSEC sometimes included additional constraints. Additional constraints were added to preclude solutions that were not operationally feasible.

Air Station Example

In this fictitious example, eight naval air stations, PAC1, PAC2, PAC3, PAC4, LNT1, LNT2, LNT3, and LNT4, currently accommodate 60 aircraft squadrons as shown in table 3. Table 4 shows the number of squadrons of each aircraft type that will be in the force in the future. The analyses of operational, reserve, and training air stations conducted for BRAC 95 did not use the analysis described here. This example was constructed to illustrate the general approach

Table 3. Current squadron assignments.

Squadron types	PAC1	PAC2	PAC3	PAC4	PAC totals	LNT1	LNT2	LNT3	LNT4	LNT totals
F-14	5	0	0	0	5	5	0	0	0	5
FA-18	0	10	0	0	10	0	10	0	0	10
A-6	0	0	4	0	4	4	0	0	0	4
P-3	0	0	3	2	5	0	0	3	2	5
H-60	0	0	4	2	6	0	0	2	4	6
Total	5	10	11	4	30	9	10	5	6	30

Step 1: Capacity Analysis

Capacity analysis for this example begins with noting that the eight air stations currently support 60 squadrons while the future requirement is to support 47 squadrons as shown in table 4. The number of squadrons the air station can support measures the throughput, or capacity, of an air station. This data shows 13 units of excess capacity in this subcategory. The process, therefore, must proceed with the military value and configuration analyses.

Step 2: Assessing Military Value

The questions and military value weightings for these questions appear in table 5. In this example, readiness has been given a value of 35, facilities a value of 30, mobilization a value of 25, and cost and manpower a value of 10. In this example, the presence of a bombing range is the most important factor in the military value matrix. An air station having a bombing range will receive 26.126 points. Note that the only other question receiving a score of 10 is only worth 9.459 military value points. This question only applies to the readiness criteria. The bombing range question applies to both readiness and mobilization and, therefore, receives a much higher military value weight.

The remainder of the military value matrix for the eight air stations is shown in table 6. Table 6 shows how each of the eight air stations was scored on each of the nine questions and the resulting military value for each.

Table 4. Future force structure and allocations.

Squadron type	Pacific Fleet	Atlantic Fleet
F-14	4	4
FA-18	8	8
A-6	3	3
P-3	4	4
H-60	4	5
Total	23	24

Table 5. Air station military value questions.

Questions	R	F	M	C	Score	MV weight
	35	30	25	10		
Is there a NADEP located at this air station?	1	1	1	0	5	20.958
Does the air station have specialized training simulators?	1	1	0	0	2	5.050
Does the air station have bombing ranges?	1	0	1	0	10	26.126
No ATC constraints are expected in the future.	1	0	0	0	5	4.730
Air station has the ability to berth naval vessels.	1	0	0	0	10	9.459
No foreseeable encroachment problems at this air station.	1	1	0	0	5	12.624
Off-base housing is affordable.	0	1	0	1	4	9.393
Base is free of environmental problems that prohibit development.	0	1	0	1	3	7.045
Military and civilian medical and dental care are available.	0	0	0	1	6	4.615
Total						100.000

Table 6. Military values for the example air stations.

Questions	Air Stations							
	PAC				LNT			
	1	2	3	4	1	2	3	4
Is there a NADEP located at this air station?	1	1	1	1	1	0	1	1
Does the air station have specialized training simulators?	1	0	0	1	1	1	0	1
Does the air station have bombing ranges?	1	1	1	0	1	1	0	1
No ATC constraints are expected in the future.	1	1	1	0	1	1	1	0
Air station has the ability to berth naval vessels.	1	1	0	1	1	1	1	1
No foreseeable encroachment problems at this air station.	1	0	1	1	1	1	1	1
Off-base housing is affordable.	1	0	1	1	1	1	1	1
Base is free of environmental problems that prohibit development.	0	0	1	1	1	1	1	1
Military and civilian medical and dental care are available.	1	1	1	1	0	0	1	0
Military value	92.96	65.89	85.49	69.14	95.38	74.43	68.82	90.65

Table 7 summarizes the ranking of the eight air stations and their military value scores.

Table 7. Military value assessment results.

Step 3. Configuration Analysis

In this example, five types of aircraft squadrons must be allocated to the air stations. Each of the five types of aircraft squadrons requires certain resources to maintain their operational readiness. The allocation is constrained by the resources available at each air station and the requirement for resources by each allocated squadron. Table 8 shows the resource requirements for each type of squadron. All of the aircraft may be assigned to a type II hangar, but a P-3 aircraft squadron may only be assigned to a type II hangar. Type I hangars are not tall enough to fit the P-3 tail.

Air station	Military value
LNT1	95.38
PAC1	92.96
LNT4	90.65
PAC3	85.49
LNT2	74.43
PAC4	69.14
LNT3	68.82
PAC2	65.89

this optimization problem in the AMPL modeling language³ is included in appendix A along with the corresponding data file. Optimal solutions were obtained using the OSL solver⁴. Table 10 shows the retained air stations and the total number of hangar modules at the retained air stations. The table also shows the average military value of the retained air stations.

Table 10. Air station optimal solutions.

Air Station	First solution	Second solution	Third solution
PAC1	0	1	1
PAC2	1	0	1
PAC3	1	1	1
PAC4	0	1	0
LNT1	1	1	1
LNT2	0	0	0
LNT3	1	1	1
LNT4	1	1	1
Hangar modules retained	52	54	60
Average military value	81.246	83.740	83.198

In this example, the second-best solution, while having only two more hangar modules, has an average military value that is more than two points higher than the best solution. If this was a real case, these results would be briefed to the BSEC for consideration in their deliberations.

Note that these solutions do not eliminate all of the excess capacity identified in the capacity analysis. The optimal solution retains 52 hangar modules, five more than the number required. There is no solution with a smaller number of retained hangar modules that satisfies the constraints on the potential solutions.

Naval Shipyard Example

For this example, six shipyards are considered. Three of the shipyards are on the Pacific Coast: SYP1, SYP2, and SYP3. SYL1, SYL2, and SYL3 are shipyards on the Atlantic Coast. Two types of work are done in these shipyards: nuclear and non-nuclear repairs. Throughput capacity is measured in millions of direct labor man-hours (MDLMH) of repair work that can be fit into each shipyard. Each shipyard has the capacity to do a certain amount of these types of work and each shipyard has a total capacity for both types of work. Sometimes the total capacity is less than the sum of the individual work type capacities

³ R. Fourer, D. M. Gay, and B. W. Kernighan, *AMPL: A Modeling Language for Mathematical Programming*, The Scientific Press, San Francisco, 1993.

⁴ M. S. Hung, W. O. Rom, and A. D. Waren, *Optimization with IBM OSL*, Boyd and Fraser Publishing Co., Danvers, Massachusetts, 1994.

because some flexibility between the facilities is required for each type of work. The capacities for each of the six shipyards are displayed in table 11.

Table 11. Shipyard capacities (MDLMH).

Type of work	Pacific Coast shipyards			Atlantic Coast shipyards			Total
	SYP1	SYP2	SYP3	SYL1	SYL2	SYL3	
Nuclear	4.0	5.0	4.5	0	3.0	0	16.5
Non-nuclear	0.5	3.0	2.0	2.7	1.0	0.5	9.7
Total capacity	4.0	7.0	6.0	2.7	4.0	0.5	24.2

Step 1: Capacity Analysis

For this example, 9.75 million direct labor man-hours are required for nuclear work and 7.95 million direct labor man-hours are required for non-nuclear work. Given 41 percent excess capacity for the nuclear work and 18 percent for non-nuclear work, the process must go on with military value assessment and configuration analysis.

Step 2: Assessing Military Value

The questions used in this example to assess the military value of shipyards are shown in table 12. Table 12 also shows the applicability of each question to the military value criteria and the score and military value weight for each question.

Table 13 shows how each of the six shipyards was scored on each of the 13 questions and the resulting military value for each. The average military value for the six shipyards is 43.

Step 3: Configuration Analysis

The configuration analysis finds the set of shipyards whose sum of total capacities is the smallest and sum of nuclear and non-nuclear capacities are sufficient to do the requisite amount of nuclear and non-nuclear repair work. In addition, the retained shipyards must have an average military value of at least 43. Table 13 displays the best, the second-best, and third-best solutions.

The optimal solution in this example has a total capacity that exactly matches the total requirement, 17.7. On the one hand, this appears to be the perfect solution. On the other hand, if the requirement is understated, the capacity will be insufficient. Of the three solutions given here, only the third one has sufficient capacity to perform at a level that is 10 percent higher than the estimated requirement. The third solution also has the highest average military value. It is likely that if the BSEC were to be presented with a situation similar to this, it would consider the possibility that the estimates of future requirements were understated. If the real requirements were 10 percent higher than the figures used here, only the third solution would have the necessary capacities. Given the higher average military value of the third solution and its extra capacity, the BSEC might elect to pursue that alternative. The formulation of this optimization problem in the AMPL modeling language is included in appendix A along with the corresponding data file. Optimal solutions were obtained using the OSL solver.

Table 12. Shipyard military value questions.

Question	R	F	M	C	Score	MV
	40	25	15	20		weight
Can the NSY drydock a CVN/CV?	1	1	1	0	10	14.92
Can the NSY drydock 4 or more SSN-688s, simultaneously?	1	1	1	0	10	14.92
Can the NSY drydock 4 or more CG/DDG/DDs simultaneously?	1	1	1	0	9	13.43
Can the NSY drydock 4 or more SSN-637s, simultaneously?	1	1	1	0	4	5.97
Were more than 500 apprentices trained over the past 5 years?	0	0	0	1	4	3.20
The two closest fleet homeport concentrations average less than 500 miles from the NSY.	1	0	0	1	6	8.33
Is the average age of industrial plant equipment less than 25 years?	0	1	0	0	7	3.24
Site is in an "attainment" or "maintenance" air quality control area for CO, ozone, PM-10.	1	1	0	1	10	18.51
Can CVNs be berthed at this NSY for surge berthing?	0	0	1	0	1	0.44
Did the level of effort of nuclear shipwork exceed 3000 DLMYs on the average, annually from FY 1991?	1	0	0	0	10	5.86
Did the level of effort of non-nuclear shipwork exceed 2000 DLMYs on the average, annually from FY 1991?	1	0	0	0	9	5.29
Is the violent crime rate < 758/100,000?	0	0	0	1	1	0.80
Are more than 10 percent of crews of customer ships berthed on barges?	0	1	0	1	4	5.05
					Total	100

Table 13. Military values for the example shipyards.

Question	Pacific Coast shipyards			Atlantic Coast shipyards		
	SYP1	SYP2	SYP3	SYL1	SYL2	SYL3
Can the NSY drydock a CVN/CV?	1	1	1	1	1	0
Can the NSY drydock 4 or more SSN-688s, simultaneously?	0	1	0	1	0	1
Can the NSY drydock 4 or more CG/DDG/DDs simultaneously?	0	0	0	1	0	0
Can the NSY drydock 4 or more SSN-637s, simultaneously?	0	1	0	1	0	0
Were more than 500 apprentices trained over the past 5 years?	1	0	0	1	0	0
The two closest fleet homeport concentrations average less than 500 miles from the NSY.	1	1	0	0	0	0
Is the average age of industrial plant equipment less than 25 years?	1	1	0	1	1	0
Site is in an "attainment" or "maintenance" air quality control area for CO, ozone, PM-10.	0	0	1	0	1	1
Can CVNs be berthed at this NSY for surge berthing?	0	1	0	1	0	0
Did the level of effort of nuclear shipwork exceed 3000 DLMYs on the average, annually from FY 1991?	0	1	0	1	0	0
Did the level of effort of non-nuclear shipwork exceed 2000 DLMYs on the average, annually from FY 1991?	0	0	0	0	0	0
Is the violent crime rate < 758/100,000?	1	1	0	1	1	1
Are more than 10 percent of crews of customer ships berthed on barges?	0	0	0	0	1	0
Military value	30.49	54.51	33.44	62.81	42.53	34.24

Differences from BRAC 93

The analytical process used in the BRAC 95 process is a refinement of that used for the 1993 process. The major difference is the added capability that the AMPL/OSL mixed-integer linear programming solver gave to the modeling process. Many models used for the various subcategories are richer in the level of detail modeled. For example, the configuration model for the technical centers models the technical support functions and life-cycle support functions of the technical centers. This model had to consider the capabilities of each technical center in arriving at a solution. The technical center model was very complex, having nearly 10,000 variables and almost 1,000 constraints. This level of modeling would not have been possible with the tools available to the BSEC for the BRAC 93 process.

In several models, notional squadrons or other units were assigned to activities as part of the computations to assure that the retained sites could fit the workload. In some of these cases, fitting the units into a given set of retained activities in many different ways is possible. In these cases, the military

value was used to help the solver to determine that it had the best solution regarding retained sites. These features were designed such that they did not affect the choice of sites for retention.

Summary

The analytical approach described in this paper was only a part of a much larger process by which the BSEC arrived at its recommendations. The analytical approach was a tool used by the BSEC. As can be seen in the record of the BSEC deliberations, the information that the BSEC considered went far beyond the information

included in the configuration analysis. Recommendations, therefore, cannot be expected to follow exactly the optimal solutions from the configuration modeling. The configuration analysis did serve the purpose of framing a reasonable solution space for the BSEC to consider as they constructed the alternatives that were subjected to the COBRA analysis.

Table 14. Naval shipyard optimal solutions.

Shipyard	First solution	Second solution	Third solution
SYP1	1	1	0
SYP2	1	1	1
SYP3	0	0	1
SYL1	1	1	1
SYL2	1	1	1
SYL3	0	1	0
Capacity retained (MDLMH)	17.7	18.2	19.7
Average military value	47.59	44.92	48.323

ARMY

Environ Critic - Input analysis.

'95 Team: Environ/Tech experts

8 people who had their own expertise.

Joint service group pulled together as a result of DSD-GAO audit - ~~were~~ GAO want to make sure they were asked the right questions.

IEBS - tailored by base -

staffed data calls out to Maj Comm's -

A contact level that all critics ~~can~~ can look at between services

Crossovers between milval values.

askg: acreage - type of land, acres, use. land use.

Mil Val: ranked & rated

Crit 8: was not ranked.

potential water buildable acre, wastewater treatment.

~150 and 1300 points were environ. resource types of issues with the environ quality.

data scrub for data call for data -
= making sure that

pump's capacity versus total capacity.

data collection - hand copy + mirror disk.
stuffed to Maj Comm's
↓
stuffed to
Corporate data base.

Used more than survey data ; used oth info that
they had access to:

Developed + stuffed it for 3-4 mo's → scrubbed
↓
sent out for add'l
data
↓
Began analytical
process.

Mil Val - game ranking.
Environ data

Preliminary environ. consideration analysis for all
potential candidates.

ERBS's developed before closure list.

PPAD order of merit list.

↓
Looked at what might have been a problem with
receiver list.

~~Environ data~~ Had to rank orders of magnitude
they would note avoid any possible environ.
impediment.

Environ costs - as we debated in BRAC '93, we know that
we before going to meet's what issues of content
need be.

- Restoration costs not considered.

Collected for informational purposes only.

- Agreed that if compliance costs affected a decision,
it would point COBRA.

Reducing environmental cost

Working at that question.

~~weight~~

JV - doesn't think that air quality was a capacity
related factor?

Air Qual

Any collected data for each area.

If not in abstract, not
certain?

Degree?

Missions, numbers: looked at problem of

Air qual -

Look at that need and if an area.

Lots of BRAC activities

Air quality \rightarrow you don't think it will need to be an issue.

uniformity check would need to be done.

if the air on pit falls, you Army could do
"work arounds"

There are always tradeoffs that can get you
what you need + be.

Air Force = how to do Environmental Analysis
for such Rare Labs + Mammals?

ERC

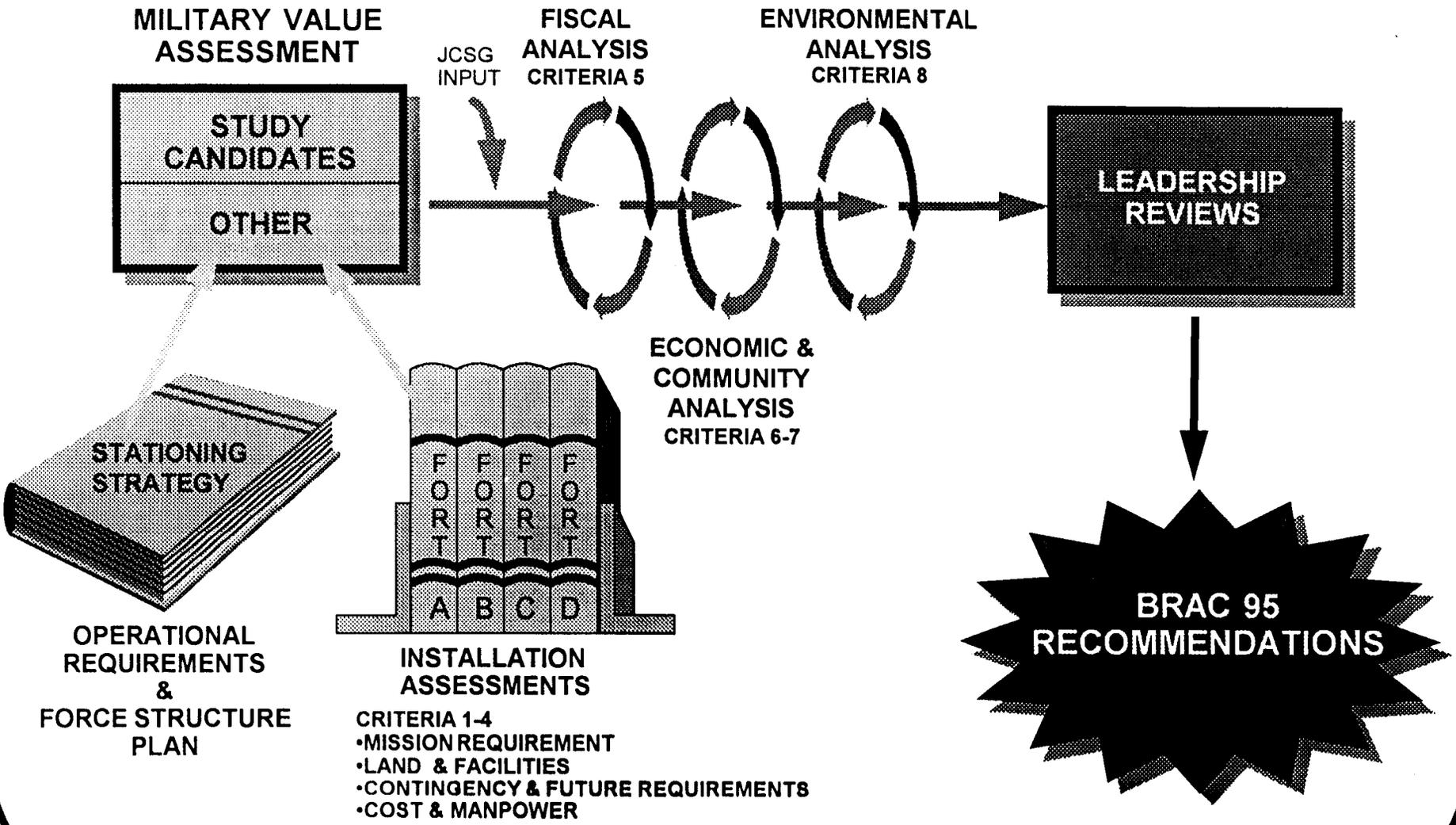
Environ. Review Committee -

Tech Team that work BAA process -

Office of director of environ. programs -
AEC -

Director =

ARMY BRAC PROCESS



10:AM →

NAVY CRIT. 8 COBRA influenced / relocation.

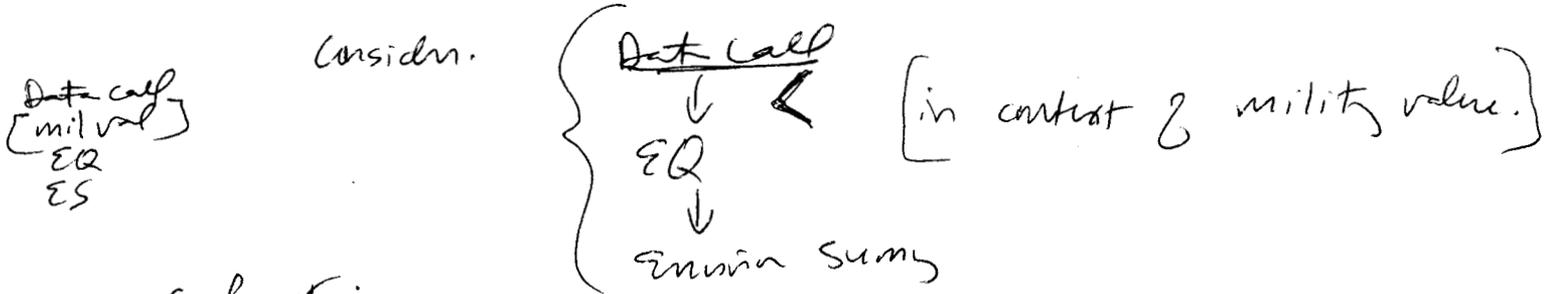
Mtg. w/ Leinberg et. al.
Attorne
another C.E.
3/23/95 9AM

Military Value -
MV data calls.

"EQ" per station. Assign = relative "score" that indicated "mgt effort"

Environmental Summary: ~~category~~ criterion 8

EQ: same as ~~assignment~~ assigned value.
Airport card - "No, more of an inventory."



conformity:
consider An implementation issue. Not a "stopper."
Easy / mod. difficult / very difficult.

"Very difficult": they didn't want to do yours.
No difficult environmental issues were stoppers.

Dredging issues exist at every Navy site
we have to do creative things for all our
Navy sites. We're stuck with the ones we have.

At major needs to do -

Engines on ships - # engines - ~~3~~ 4 coast
skating hours w/in 3 mi of

ships declining significantly. we're declining, so not as much ~~an~~ an issue.

An aircraft emission source.

[3 mi - territorial U.S. boundary.]

Some districts ~~don't~~ care if above a "ceiling."
Air quality: $\sqrt{3,000}$ emissions. Same location care but
Puro stuff ~~don't~~ → Calif. districts.

Military value database - is a quantitative approach -
taking a blend of a lot of criteria -
category = $\sqrt{3,000}$ + military value.
weighting for environmental features is done but it doesn't seem to have a
very high weight

Check for analytic tool - check for - 3/14/95.
transmitted letter. Date that Navy submitted
stuff to us.

Limitations + developments:

• wetlands 2 for 1 ~ 3 for 1 tradeoffs.
not really a "stopper" - "it's the cost of doing
business."

"limitations + development" section was
included under facilities.

→ Did it affect choice of receiver sites?

Only 1 example - of environ. issues
identified - in COBRA:

Gun plating shipyard: didn't have
environmental costs.

Discussion of it in deliberative process.

"Water Valley" → "water vale"
what are comparative-

Water Valley → revealed itself is cost analysis
part of the decision. Environ-cost
★ what permits do they need?

High EQ

Waste treatment -

EQ: management issue

~~How~~ I don't have a lot of management
attention & environmental quality.

a big demand for env. mgmt?

Is the ~~need~~ ^{need} of environment

~~the~~ ^{the} will need for env. mgmt.
increase if base is closed / realized?

- The Navy's criterion was
- ① "The things you have to manage", not,
 - ② "The dirtiness of the base." often times 1 & 2 do not influence each other.
- Cost / hours /

EQ what's going on today - (not anticipatory)
Environmental management effort today -
Outputs desired.

Once we did criteria of analysis, we went back
& looked at how will environment mgmt. change.
based on our scenarios.

environmental management captures

→ compliance

→ AND remedial activity.

A couple of small IR sites:

* Check GAO data call to see what Environ.

Look at environ. data & see how proposed BRTC actions will
change environ. mgmt. attr.

~~usually it's data~~

→ Only ^{criticism} ~~pieces~~ that changed with respect to
management attention was the air
quality part: would this add mgmt. attr.? Sometimes,
yes.

China Lake: though it has a lot of ^{env.} vacancies,
it still has a lot of capacity. # of environ. actions
won't limit capacity.

"Envtl mgmt. effort" only increased in the
air quality criteria.

Environmental summary. Getting to the point of comparing bases against
each other for closure / realignment decisions.

EQ: when you get to BSEC level, find
out whether 2 bases are radically
different by comparing EQ.

Leibing: A few points didn't make a difference between bases that
were in versus out of the lineup. What mattered was -
large ~~point~~ point spread. (More than 4? what kind of spread?)

AQ looked at

Not looked at:

- reuse limitations
- long-term contractor needs
- costs of cleanup.

~~are~~ are time compliance closure costs -
[i.e., closing down an oil/water
operator - RCRA TSD closure.]

Facilities issues considered -

Do you have ability + expertise based on
physical features of property?

Ar Quality: Regulators evidently consider permitted stationary sources as an
"indicator" of how many mobile sources are anticipated. [Entry? /
do not get it.]
Permitted stationary sources - if low,
regulators make assumptions that
the emissions sources for vehicles are
also small. [Hmmm.....]

Se: in pre-closure: included all decisions
made up to + including BRC-3.
Summer '94.

Sh: no market exists in South Weymouth.
Sh would contemplate more than just ERCs / market for
ERCs.

Follow up with:

Get the Kentucky → Norfolk ^{COBRA} ~~run for~~

Q's by fellows - Did environ. features make it into capacity analysis?

The numbers assigned to environmental criteria: were they or weren't they "weighted"?

Navy: seems to shirk from the idea that weights should be assigned.

Federal Government under 41 U.S.C. 46-46c and 41 CFR 31-2.6.

I certify that the following actions will not have a significant impact on a substantial number of small entities. The major factors considered for this certification were:

- a. The action will not result in any additional reporting, recordkeeping or other compliance requirements.
- b. The action will not have a serious economic impact on any contractors for the service listed.

c
and
proc
A
has
Con
Fitz
Den
TI
awa
this
thos
E.A.
Depu
IFR D
MILLAN

B-Cook give them back \$
win

commodities and services to the Procurement List:

Commodities

Case, Ear Plug
6315-01-212-0452.
(Remaining 20 percent of Government's Requirement)

Wash Kit, Personal
7360-00-136-1063

Bag, Parts

208
209
210
274
275
of Mare Island Naval

dial, Department of the
the Reservoir, Coralville

dial, Internal Revenue
r. 3651 South Interregional
Quatin, Texas
ing Picnic Tables, Deschutes
st, Bend Ranger District.

s Director.

Filed 2-14-91; 8:45 am]

20-21

XXIX, part A of the National Defense Authorization Act for Fiscal Year 1991 as follows:

In selecting military installations for closure or realignment, the Department of Defense, giving priority consideration to military value (the first four criteria below), will consider:

Military Value

- 1. The current and future mission requirements and the impact on operational readiness of the Department of Defense's total force.
- 2. The availability and condition of land, facilities and associated airspace at both the existing and potential receiving locations.
- 3. The ability to accommodate contingency, mobilization, and future total force requirements at both the existing and potential receiving locations.
- 4. The cost and manpower implications.

Return on Investment

- 5. The extent and timing of potential costs and savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed the costs.

Impacts

- 6. The economic impact on communities.
- 7. The ability of both the existing and potential receiving communities' infrastructure to support forces, missions and personnel.
- 8. The environmental impact.

B. Analysis of Public Comments

The Department of Defense (DoD) received 169 public comments in response to the proposed DoD selection criteria for closing and realigning military installations inside the United States. The public's comments can be grouped into four topics: General, military value, costs and "payback", and impacts. The following is an analysis of these comments.

(1) General Comments

(a) A substantial number of commentors expressed concern over the proposed criteria's broad nature and similarity to the 1988 Defense Secretary's Base Realignment and Closure Commission criteria. Many of the comments noted a need for objective measures or factors for the criteria. Some commentors also suggested various standard measures or factors for

DEPARTMENT OF DEFENSE

Office of the Secretary

Department of Defense Selection Criteria for Closing and Realigning Military Installations Inside the United States

AGENCY: Department of Defense (DoD).

ACTION: Final selection criteria.

SUMMARY: The Secretary of Defense, in accordance with section 2803(b), title XXIX, part A of the FY 1991 National Defense Authorization Act, is required to publish the proposed selection criteria to be used by the Department of Defense in making recommendations for the closure or realignment of military installations inside the United States.

EFFECTIVE DATE: February 15, 1991.

FOR FURTHER INFORMATION CONTACT: Mr. Jim Whittaker or Ms. Patricia Walker, Base Closure and Utilization, OASD(P&L), (703) 614-5356.

SUPPLEMENTARY INFORMATION:

A. Final Selection Criteria

The final criteria to be used by the Department of Defense to make recommendations for the closure or realignment of military installations inside the United States under title

Proci

AGEN
the Bl
Handicapped.

ACTION: Proposed additions to procurement list.

SUMMARY: The Committee has received proposals to add to the Procurement List commodities to be produced and services to be provided by workshops for the blind or other severely handicapped.

COMMENTS MUST BE RECEIVED ON OR BEFORE: March 18, 1991.

ADDRESSES: Committee for Purchase from the Blind and Other Severely Handicapped, Crystal Square 5, suite 1107, 1755 Jefferson Davis Highway, Arlington, Virginia 22202-3509.

FOR FURTHER INFORMATION CONTACT: Beverly Milkman, (703) 557-1145.

SUPPLEMENTARY INFORMATION: This notice is published pursuant to 41 U.S.C. 47(a)(2) and 41 CFR 31-2.6. Its purpose is to provide interested persons an opportunity to submit comments on the possible impact of the proposed actions.

If the Committee approves the proposed additions, all entities of the Federal Government will be required to procure the commodities and services listed below from workshops for the blind or other severely handicapped. It is proposed to add the following

the criteria. The inherent mission diversity of the Military Departments and Defense Agencies (DoD Components) makes it impossible for DoD to specify detailed criteria, or objective measures or factors that could be applied to all bases within a Military Department or Defense Agency. We have provided the commentors' letters to each Military Department for their consideration. The similarity to the 1988 Base Closure Commission criteria is acknowledged. After reviewing the public comments we concluded that using similar criteria is appropriate.

(b) Many commentors noted that a correlation between force structure and the criteria was not present. The base closure and realignment procedures mandated by title XXIX, part A, of the National Defense Authorization Act for Fiscal Year 1991 (the Act) require that the Secretary of Defense's recommendations for closure and realignment be founded on the force structure plan and the final criteria required by the Act. DoD's analytical and decision processes for applying the final criteria will be based on the force structure plan. The military value criteria provide the connection to the force structure plan.

(c) Many commentors noted the need for more detailed information on how DoD would implement the base closure procedures required by the Act. A recurrent suggestion was to group like bases into categories for analysis. In response to this comment and suggestion, and to respond to the general comments (a) and (b) above, we have issued policy guidance to the Military Departments and Defense Agencies on the base closure process. This guidance requires them to:

- Treat all bases equally: They must consider all bases equally in selecting bases for closure or realignment under the Act, without regard to whether the installation has been previously considered or proposed for closure or realignment by the Department. This policy does not apply to closures or realignments that fall below the thresholds established by the Act or to the 86 bases closed under Public Law 100-526:

- Categorize bases: They must categorize bases with like missions, capabilities and/or attributes for analysis and review, to ensure that like bases are fairly compared with each other, and

- Perform a capacity analysis: They must link force structure changes described in the force structure plan with the existing force and bases structure, to determine if a potential for closure or realignment exists. In the

event a determination is made that no excess capacity exists in a category, then there will be no need to continue the analysis of that category, unless there is a military value or other reason to continue the analysis:

- Develop and Use Objective Measures/Factors: They must develop and use objective measures or factors within categories for each criterion, whenever feasible. We recognize that it will not always be possible to develop appropriate objective measures or factors, and that measures/factors (whether they be objective or subjective) may vary for different categories of bases.

(d) A number of commentors recommended assigning specific weights to individual criteria. It would be impossible for DoD to specify weights for each criterion that could be applied across the board to all bases, again due to the mission diversity of the Military Departments and Defense Agencies. It appears from the comments that numbering the criteria may have been mistaken as an order of precedence associated with individual criteria. We do not intend to assign an order of precedence to an individual criterion, other than to give priority to the first four.

(e) Several commentors gave various reasons why a particular installation should be eliminated from any closure or realignment evaluation. Public Law 101-510 directs DoD to evaluate all installations equally, exclusive of those covered under Public Law 100-526 or those falling below the threshold of section 2687, title 10, U.S. Code. Public Law 100-526 implemented the recommendations of the 1988 Defense Secretary's Commission on Base Realignment and Closure. We have issued guidance to the DoD Components instructing them to consider all bases equally, this includes those previously nominated for study in the Defense Secretary's January 29, 1990, base realignment and closure announcement that are above the thresholds established in the Act. Conversely, we did not receive any requests that a particular installation be closed or realigned pursuant to section 2924 of Public Law 101-510.

(f) A number of commentors noted a need for more management controls over data collection to ensure accuracy of data. We agree with this recommendation and have issued guidance that requires the DoD Components to develop and implement internal controls, consistent with their organizational and program structure, to ensure the accuracy of data collection and analyses being performed. This

guidance incorporates the lessons learned from the General Accounting Office's review of the 1988 Base Closure Commission's work.

(g) After detailed consideration of all comments, we have determined that some of the criteria may have been unclear. We have revised the criteria for additional clarity.

(h) Some of the early comments we received recommended extending the original December 31, 1990, public comment deadline. We agreed and extended the public comment period to January 24, 1991. In addition, we accepted for consideration 19 public comments received after the January 24, 1991, deadline.

(2) Military Value Comments

(a) A majority of comments received supported DoD's decision to give priority consideration to the military value criteria. In the aggregate, military value refers to the collection of attributes that describe how well a base supports its assigned force structure and missions.

(b) Several commentors recommended that National Guard and Reserve Component forces be included as part of DoD's base closure analysis. The Department's total force concept includes National Guard and Reserve Component forces, and these forces will be reflected in the force structure plan required by the Act for this base closure process. To clarify that point, criteria number one and three were amended.

(c) Some commentors recommended DoD apply the military value criteria without regard to the DoD component currently operating or receiving the services of the base. The commentors noted that this would maximize utilization of Defense assets and therefore improve the national security. We agree with this comment. DoD must retain its best bases and where there is a potential to consolidate, share or exchange assets, that potential will be pursued. We also recognize that this potential does not exist among all categories of bases and that the initial determination of the military value of bases must be made by the DoD Component currently operating the base. Consequently, we have left the military value criteria general in nature and therefore applicable DoD-wide, where appropriate. We have also issued guidance to the DoD Components that encourages inter-service and multi-service asset sharing and exchange. Finally, we will institute procedures to ensure each DoD Component has the opportunity to improve the military value of its base structure through

analysis of potential exchanges of bases with other DoD Components.

(d) Some commentors recommended we include the availability of airspace in our considerations of military value. We agree and have revised criterion number two accordingly.

(e) Several commentors requested a geographic balance be maintained when considering installations for realignment or closure. DoD is required by Public Law 101-510 to evaluate all installations equally, exclusive of those covered under Public Law 100-526 or those falling below the thresholds of section 2887, title 10, U.S. Code. However, some measures of military value do have a geographic component and therefore military mission requirements can drive geographic location considerations.

(f) Some commentors recommended that the availability of trained civil service employees be considered as well as the capacity of the private sector to support or perform military missions. DoD's civil service employees are an integral part of successful accomplishment of defense missions, as are defense contractors whether they be nationally or locally based. To the extent that the availability of trained civilian or contractor work forces influences our ability to accomplish the mission, it is already included in criteria number one and four.

(g) Several commentors recommended that mobilization potential of bases be considered and that those bases required for mobilization be retained. Contingency and mobilization requirements are an important military value consideration and were already included in criterion number three. The potential to accommodate contingency and mobilization requirements is a factor at both existing and potential receiving locations, and we have amended criterion number three accordingly.

(h) One commentor recommended retaining all bases supporting operation Desert Shield/Storm and another recommended including overseas bases. DoD must balance its future base structure with the forces described in the force structure plan, and not on the current basing situation. Some forces currently supporting Operation Desert Storm are scheduled for drawdown between 1991 and 1997. DoD must adjust its base structure accordingly. Overseas bases will also be closed in the future as we drawdown DoD's overseas forces. However, Congress specifically left overseas base closures out of the base closure procedures established by the Act.

(3) Cost and "Payback" Comments

(a) Some commentors recommended calculating total federal government costs in DoD's cost and "payback" calculations. A number of such comments gave as examples of federal government costs, health care and unemployment costs. The DoD Components annually budget for health care and unemployment costs. We have instructed the DoD Components to include DoD costs for health care and unemployment, associated with closures or realignments, in the cost calculations.

(b) Several commentors noted the absence of a "payback" period and some felt that perhaps eight or ten years should be specified. We decided not to do this; we did not want to rule out making changes that were beneficial to the national security that would have longer returns on investment. The 1988 Base Closure Commission felt that a six-year "payback" unnecessarily constrained their choices. The DoD Components have been directed to calculate return on investment for each closure or realignment recommendation, to consider it in their deliberations, and to report it in their justifications. Criterion number five has been amended accordingly.

(c) Some commentors recommended including environmental clean-up costs in base closure cost and payback calculations. Some also noted that the cost of environmental clean-up at a particular base could be so great that the Department should remove the base from further closure consideration.

The DoD is required by law to address two distinctly different types of environmental costs.

The first cost involves the clean-up and disposal of environmental hazards in order to correct past practices and return the site to a safe condition. This is commonly referred to as environmental restoration. DoD has a legal obligation under the Defense Environmental Restoration Program and the Comprehensive Environmental Response, Compensation and Liability Act for environmental restoration at sites, regardless of a decision to close a base. Therefore, these costs will not be considered in DoD's cost calculations. Where installations have unique contamination problems requiring environmental restoration, these will be identified as a potential limitation on near-term community reuse of the installation.

The second cost involves ensuring existing practices are in compliance with the Clean Air, Clean Water, Resource Conservation and Recovery Act, and other environmental acts, in

order to control current and future pollution. This is commonly referred to as environmental compliance.

Environmental compliance costs can potentially be avoided by ceasing the existing practice through the closure or realignment of a base. On the other hand, environmental compliance costs may be a factor in determining appropriate closure, realignment, or receiving location options. In either case, the environmental compliance costs or cost avoidances may be a factor considered in the cost and return on investment calculations. The Department has issued guidance to the DoD Components on this issue.

(d) Some commentors recommended DoD change the cost and "payback" criteria to include uniform guidelines for calculating costs and savings. We agree that costs and savings must be calculated uniformly. We have improved the Cost of Base Realignment Actions (COBRA) model used by the 1988 Base Closure Commission and have provided it to the DoD Components for calculations of costs, savings, and return on investment.

(4) Impacts Comments

(a) Many commentors were concerned about social and economic impacts on communities and how they would be factored into the decision process. We have issued instructions to the DoD Components to calculate economic impact by measuring the effects on direct and indirect employment for each recommended closure or realignment. These effects will be determined by using statistical information obtained from the Departments of Labor and Commerce. This is consistent with the methodology used by the 1988 Base Closure Commission to measure economic impact. We incorporated the General Accounting Office's suggested improvements for calculation of economic impact. DoD will also determine the direct and indirect employment impacts on receiving bases. We have amended criterion number six to reflect this decision.

(b) The meaning of criterion number seven, "the community support at the receiving locations" was not clear to several commentors. Some wondered if that meant popular support. Others recognized that this criterion referred to a community's infrastructure such as roads, water and sewer treatment plants, schools and the like. To clarify this criterion, we have completely re-written it, while also recognizing that a comparison must be made for both the existing and potential receiving communities.

(c) Many commentors asked how environmental impacts would be considered. As we stated in topic 3(c), DoD will consider certain environmental costs. In addition, we have instructed the DoD Components to consider, at a minimum, the following elements when analyzing environmental consequences of a closure or realignment action:

- Threatened and endangered species
- Wetlands
- Historic and Archeological sites
- Pollution Control
- Hazardous Materials/Wastes
- Land and Air uses
- Programmed environmental costs/cost avoidances

(d) A number of commentors questioned the meaning of criterion number nine. "The implementation process involved". The intent of this criterion was to describe the implementation plan, its milestones, and the DoD military and civilian employee adjustments (Increases and decreases) at each base, that would result through implementation of the closure or realignment. After further consideration, we have determined that developing the implementation plan is a necessary requirement and conclusion of applying the other eight criteria. A description of the implementation plan, while important to the understanding the recommended closure or realignment, is not in itself a specific criterion for decisionmaking. Consequently, we have deleted criterion number nine. We have instructed the Military Departments and Defense Agencies to include a description of their implementation plans for each recommended closure or realignment, as part of the justification to be submitted to the Commission.

C. Previous Federal Register References

(1) 55 FR49679, November 30, 1990: Proposed selection criteria and request for comments.

(2) 55 FR53538, December 31, 1990: Extend comment period on proposed selection criteria.

D. Paperwork Reduction Act

The Paperwork Reduction Act (Pub. L. 96-511) does not apply.

Dated: February 11, 1991.

L.M. Bynum,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 91-3643 Filed 2-14-91; 8:45 am]

BILLING CODE 3010-01-01

Department of the Army

Environmental Assessment: Exoatmospheric Discrimination Experiment (EDX) Program

AGENCY: U.S. Army Strategic Defense Command (USASDC); DOD.

COOPERATING AGENCY: Strategy Defense Initiative Organization, DOD U.S. Department of the Navy, DOD.

ACTION: Notice of Availability of Finding of no significant impact.

SUMMARY: Pursuant to the Council on Environmental Quality regulations for implementing the procedural provisions of the National Environmental Policy Act (40 CFR parts 1500-1508), Army Regulation 200-2, Chief of Naval Operations Instruction 6090.1, and the Department of Defense (DOD) Directive 6050.1 on Environmental Effects in the United States of DOD actions, the USASDC has conducted an assessment of the potential environmental consequences of conducting EDX program activities for the Strategic Defense Initiative Organization. The Environmental Assessment considered all potential impacts of the proposed action alone and in conjunction with ongoing activities. The finding of no significant impact summarizes the results of the evaluations of EDX activities at the proposed installations. The discussion focuses on those locations where there was a potential for significant impacts and mitigation measures that would reduce the potential impact to a level of no significance. Alternatives to the EDX launch facility were examined early in the siting process but were eliminated as unreasonable. A no-action alternative was also considered. The Environmental Assessment resulted in a finding of no significant impact. Construction will proceed as scheduled, however, due to budgetary constraints, the flight program implementation has been delayed. When the flight schedule becomes firm, this document will be reviewed and revised, as necessary, in light of any changes to the program.

DATES: Written comments are required by March 18, 1991.

POINT OF CONTACT: Mr. D.J. Gallien, Address: U.S. Army Strategic Defense Command, CSSD-EN, Post Office Box 1500, Huntsville, AL 35807-3801, Fax (205) 955-3858.

SUPPLEMENTARY INFORMATION: The USASDC was assigned the mission of acquiring critical mid-course data on ballistic missile re-entry vehicles and decoys; EDX would accomplish this mission. The EDX program would use

the ARIES booster to launch a suborbital sensor into space to observe a target ballistic missile re-entry complex during the mid-course phase of its flight. The proposed EDX program would involve nine flights over three years from two different launch sites after October 1993. The target complex would be released from a MINUTEMAN I missile launched from Vandenberg Air Force Base, California and the EDX booster and sensor payload vehicle would be launched from the Kauai Test Facility (KTF), located on the Pacific Missile Range Facility (PMRF), Kauai, Hawaii. Current launch activities would continue, however, public access through these areas would be limited for a total of less than 1 day over a three year period.

The EDX program would include a number of activities to be conducted at seven different sites. These activities are categorized as design, fabrication/assembly/testing, construction, flight preparation, launch/flight/data collection, payload/recovery, sensor payload vehicle refurbishment, data analysis, and site maintenance/disposition. The locations and types of EDX activities are: Vandenberg Air Force Base, California/Western Test Range, flight preparation, launch/flight/data collection; Pacific Missile Range Facility, Kauai, Hawaii, construction, flight preparation, launch/flight/data collection, payload recovery, sensor payload vehicle refurbishment, site maintenance/disposition; Sandia National Laboratories, New Mexico, design, fabrication/assembly/testing; U.S. Army Kwajalein Atoll, Republic of the Marshall Islands, flight preparation, launch/flight/data collection; Hill Air Force Base, Utah, fabrication/assembly/testing; Space Dynamics Laboratory, Utah State University, Logan, Utah, design, fabrication/assembly/testing, data analysis; and Boeing Aerospace and Electronics, Kent Space Center, Kent, Washington, design, fabrication/assembly/testing, sensor payload vehicle refurbishment, data analysis.

To determine the potential for significant environmental impacts as a result of the EDX program, the magnitude and frequency of the tests that would be conducted at the proposed locations were compared to the current activities and existing conditions at those locations. To assess possible impacts, each activity was evaluated in the context of the following environmental components: Air quality, biological resources, cultural resources, hazardous materials/waste, infrastructure, land use, noise, public

Document Separator

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Memo to ^{from JK to} V. J. J. dated 3/31.
3 questions which weren't addressed.
all due to environ. costs.

ANALYSIS OF GENERAL COMPLIANCE

forwarded memo from John Hessia.

CRITERION 8

THE ENVIRONMENTAL IMPACT

"Supplemental info" was actually the ~~cost~~ memo

DESCRIPTION: Pursuant to Public Law 101-510, as amended, on May 5, 1992, the Department of Defense (DOD) issued guidance with selection criteria for the 1993 base closure and realignment recommendations. This guidance includes criterion 8, the environment impact. On December 4, 1992, DOD issued further guidance on how the environmental impact should be considered for closing, realigning, and receiving locations. The December 4, 1992 guidance requires a summary statement and status on seven environmental attributes for each installation affected by the closure/realignment action, including receiving installations. These seven environmental attributes are:

- Threatened or Endangered Species
- Wetlands
- Historical or Archeological sites
- Pollution Control
- Hazardous Materials/Wastes
- Land Use and Airspace Implications
- Programmed Environmental Costs/Cost Avoidances

ANALYSIS: General compliance with these procedures is analyzed for each Service as follows:

Army: The Army compiled Installation Environmental Baseline Summaries for each Army installation eligible for closure or realignment. The Total Army Basing Study (TABS) also provided supplemental information in response to questions from the Defense Base Closure and Realignment Commission (DBCRC). The Army's installation summaries directly address six of the seven environmental attributes in DOD's guidance. Under the seventh attribute, Programmed Environmental Costs/Cost Avoidances, the Installation Summaries do not consistently follow DOD's guidance. In some cases the Installation Summaries only provide restoration costs. This is inconsistent with DOD's December 4, 1992 guidance, which directs the Services not to use restoration costs in the cost of closure calculations. However, the supplemental information provided by TABS to the DBCRC certifies that "environmental compliance costs" were determined to evaluate the impact of programmed cost/cost avoidances for all recommended actions. This supplemental information documents that program costs for receiving installations were evaluated.

The Army's Analyses and Recommendations Report (Volume III) summarized the environmental impact on closing and realigning installations, and appropriately addressed six of the seven attributes. Again, the evaluation of Programmed Environmental

possible costs: Air permits, ERCs, RCRA permits, RCRA trans. fees, PF cleanup costs

John: what was A supplemental info? was it CBR? or something else? Or do you just rely on the installation's word?

in CBR?

check this out.

Costs/Cost Avoidances was clarified by the supplemental information provided by the TABS to the DBCRC.

*How does John K. know that?
"Programmed env. cost avoidance?"
look at Dec. 4 memo.*

Navy: The Navy compiled summaries of environmental conditions for each installation eligible for closure or realignment. The Navy considered Criterion 8 in detail for installations that were recommended for closure or realignment after a review of the Military Value Criteria (Criteria 1 through 4). The Navy's "Summary of Environmental Consequences" is included in their Analyses and Recommendations Report (Volume IV). For closing and realigning bases, the Navy evaluated each installation with respect to the seven environmental attributes laid out in DOD's December 4, 1992 guidance. Summaries of environmental impacts at receiving bases are also included. These summaries on receiving bases generally address six of the seven environmental attributes, but do not specifically address Programmed Environmental Costs/Cost Avoidances. The Navy addressed the attribute of environmental costs at receiving installations in their Cost of Base Realignment Action (COBRA) model. The costs necessary to comply with environmental requirements due to new functions at these receiving bases are documented in the COBRA reports.

Air Force: The Air Force completed base-specific questionnaires on environmental issues for each Air Force installation eligible for closure or realignment. These questionnaires address all recommended closing, realigning and receiving bases. Documentation was provided on six of the seven environmental attributes. These questionnaires did not directly address the attribute of Programmed Environmental Costs/Cost Avoidances. Several questions are included under the title of "Environmental Cleanup/Compliance Costs." However, estimated costs were provided only on environmental restoration costs, and DOD's guidance specifically notes that restoration costs are not to be considered in the cost of closure. The Air Force's environmental analysis was summarized in their Analyses and Recommendations Report (Volume V). This documented the status of all environmental attributes except Programmed Environmental Costs/Cost Avoidances.

The results of the Air Force's Cost of Base Realignment Action (COBRA) Model runs were consulted in an attempt to determine whether Programmed Environmental Costs/Cost Avoidances were considered. Financial Summary reports indicate that environmental costs were entered as zero for all bases impacted by major actions. The possibility that environmental costs were merged with Military Construction costs in the COBRA model was reviewed. It was learned that Military Construction costs considered the cost of constructing mission-related facilities, such as base housing, on receiving installations. Military Construction costs also include the impacts on the capacity of utilities at receiving installations. Utility costs can include water supply and sewage treatment capacity. These were the only environmentally-related costs that were considered, however these only address receiving

bases, and no specific environmental compliance costs as described in the December 4, 1992 DOD guidance were included.

Defense Agencies: Two Defense Agencies are impacted by the 1993 Realignment and Closures, the Defense Logistics Agency, and the Defense Information Systems Agency. However, only the Defense Logistics Agency (DLA) is involved in installation closures or realignments with environmental impact. DLA completed installation-specific questionnaires that address the seven environmental attributes for all facilities where DLA has host responsibilities. At other DLA facilities, they are the tenant, and the property owner (e.g. Tooele Army Depot) addressed the environmental criterion. In DLA's Detailed Analysis Report (part of Volume VI), DLA considered Criterion 8 for installations recommended for closure or realignment based on DLA's Military Value Criteria. All seven environmental attributes were addressed in DLA's analyses. Consideration was given to closing, realigning, and receiving installations.

DIFFERENCES IN APPROACH ACROSS THE SERVICES

The Services used different perspectives in considering the relationship between closure decisions and the seven environmental attributes from DOD's guidance. When the Army made its recommendations on closure or realignment in Volume III, the analyses addressed the environmental impact on closure. (i.e. How does a wetland impact the decision to close?) Both the Navy and Defense Logistics Agency considered the impact of closure or realignment on the environmental attribute. (i.e., Will closure impact a wetland?) The Air Force's perspective was to consider the impact of the environmental attributes on the continued military mission of the installation. (i.e. How does a wetland impact the future military mission at the base?)

CONCLUSIONS

DOD's December 4, 1992 guidance on evaluating the environmental impact of closure and realignment is sufficiently general and flexible to allow the Services to apply varied perspectives to the environmental attributes. All Services have addressed most of the considerations required by the DOD guidance. The documentation provided by the Army, Navy and DLA, including the supplemental information from the Army's TABS, addresses the seven environmental attributes pursuant to DOD's guidance. Therefore the Army, Navy and DLA are in general compliance with DOD's guidance on Criterion 8 pursuant to Public Law 101-510, as amended.

The Air Force did not demonstrate that their decision-making considered the environmental attribute of Programmed Environmental Costs/Cost Avoidances pursuant to DOD's December 4, 1992 guidance. Since the Air Force properly addressed the remaining six attributes, and because it is very unlikely that the decisions made

by the Air Force would be different had they fully followed DOD's guidance, it can be concluded that the Air Force is in general compliance with the requirements to evaluate Criterion 8.

Draft 5/14/93

**ANALYSIS OF SPECIFIC COMPLIANCE
CRITERION 8
ENVIRONMENTAL IMPACTS**

DESCRIPTION: The purpose of this analysis is to evaluate the Department of Defense Services' consideration of environmental impacts in their recommendations of specific installations for closing and realignment. The environmental data used by the Services in their installation-specific conclusions were evaluated. The methodologies used to consider environmental impacts were reviewed for consistency within each Service. A determination was made on whether the Services complied with Department of Defense (DOD) policy guidance issued pursuant to Public Law 101-510, as amended. Based on the analysis on how the Services considered environmental impacts, recommendations were made on whether a specific installation's status pursuant to BRAC-93 could be revised.

The specific compliance analysis is broken down by Service. The following steps were taken in this analysis:

1. Installation-specific data (compiled in base questionnaires or data calls) were reviewed and compared to the Services' conclusions on environmental impacts in the Recommendations and Analyses Reports (Volumes III-VI).

2. The Services' summaries of the environmental impacts at specific installations were evaluated for consistency within each Service, and for compliance with DOD's December 4, 1992 policy memorandum. In this policy memorandum, guidance is provided to the Services for considering the environmental impacts on installations affected by closure and realignment actions, including receiving installations.

3. Discrepancies pursuant to the first two steps were considered in recommending whether a specific installation's status pursuant to BRAC-93 could change.

After evaluating each Service, recommendations for improvements to the environmental impact evaluation process for BRAC-95 are presented.

ANALYSIS

ARMY

1. Data Evaluation

All Army installations impacted by major closures and realignments were reviewed to determine whether the Army's Recommendations and Analyses Report (Volume III) accurately reflected their Environmental Baseline Surveys (EBS). In several

recommended actions, the conditions documented were in agreement. In the following cases, issues were raised in the EBS's that were not carried through to Volume III.

Tobyhanna Army Depot, PA is recommended to receive missions from Letterkenny Army Depot, PA. The EBS for Tobyhanna notes potential constraints related to obtaining air permits. The Volume III report does not specifically evaluate the environmental impacts at Tobyhanna.

Rock Island Arsenal, IL is recommended to receive missions from Fort Monmouth, NJ. The EBS for Rock Island notes that new operations may be constrained due to difficulties with air permits. This point is not mentioned in the environmental evaluation of Rock Island Arsenal in Volume III.

Fort Belvoir, VA is recommended for realignment. The Volume III report states that there are "no significant environmental issues involved." However, the EBS for Fort Belvoir notes several environmental issues, including the presence of wetlands, threatened or endangered species, and leaking underground storage tanks.

Fort Huachuca, AZ is recommended to receive missions from Presidio of Monterrey, CA. The EBS for Fort Huachuca notes that air permits may be a limiting factor to the receipt of additional missions. This is not noted in the Volume III report.

Fort Jackson, SC is recommended to receive missions from Fort Monmouth, NJ. The EBS for Fort Jackson notes that permits for air emissions may be a limiting factor for the receipt of new missions, and notes that the presence of threatened or endangered species, "must be considered and may impact receiving additional personnel or missions." The Army's Volume III report did not evaluate environmental impacts on Fort Jackson.

Red River Army Depot, TX is recommended to receive missions from both Letterkenny Army Depot, PA, and Tooele Army Depot, UT. The EBS for Red River notes that the receipt of new missions may lead to delays due to the need for permits for increases in solid waste disposal and air emissions. Additionally, the EBS indicates that a Resource Conservation and Recovery Act (RCRA) regulated landfill has been ordered to close and a new facility must be constructed. The Army's Volume III report did not evaluate environmental impacts from the recommended moves to Red River.

Anniston Army Depot, AL is recommended to receive missions from both Fort McClellan, AL, and Letterkenny Army Depot, PA. The EBS for Anniston notes that the receipt of new missions may lead to delays due to the need for permits for solid waste and air emissions. The environmental impacts from these recommended moves were not evaluated in the Army's Volume III report.

Fort Leonard Wood, MO is recommended to receive missions from Fort McClellan, AL. The EBS for Fort Leonard Wood notes possible constraints on expansion due to wetlands and endangered species. The Volume III report notes that there is no impact from this realignment on these resources, but does not mention how this conclusion was reached.

2. Consistency/Compliance

The Army's consideration of environmental programmed costs/cost avoidances may not have been consistent. The output from the Cost of Base Realignment Actions (COBRA) model was reviewed to check for how specific bases considered environmental costs. Discrepancies were found between the costs noted by the Army in the EBS and Volume III report, and the funds noted in COBRA reports. Annual environmental costs were entered into COBRA for fiscal years through 1997. These COBRA costs appear to be environmental compliance costs, and did not match the compliance costs given in the EBS's or Volume III report.

The Army's evaluation of criterion 8 at specific facilities made use of environmental restoration costs in a way that may be inconsistent with DOD's policy. DOD's "Policy Memorandum Two," December 4, 1992, states, "Environmental Restoration costs at closing bases are not to be considered in cost of closure calculations." The memo goes on to stipulate that these costs can be "considered as a potential limitation on near-term community reuse of the installation." Thus, simply by noting restoration costs, the Army is not necessarily in non-compliance, they are only in non-compliance if these restoration costs are used in the cost of closure.

In its base specific EBS's, and in its Volume III report, the Army often cites environmental restoration costs, along with the environmental compliance costs. In one specific case, Tooele Army Depot, the documentation provided is only for restoration costs in Volume III, and the EBS does not distinguish between restoration and compliance costs. This documentation for Tooele does not allow for consideration of compliance costs, pursuant to DOD's direction, in the evaluation of Programmed Costs/Cost Avoidances.

The Army's use of environmental restoration costs in decisions on Fort Monroe, VA is unclear. Documentation on briefings given by the Army's Total Army Basing Study (TABS) in late January, and early February, 1993, discuss environmental restoration impacts on the possible closing of Fort Monroe, VA. On February 3, 1993, the Secretary of the Army and Army Chief of Staff were briefed on a recommendation for deferral of closure of Fort Monroe due to "environmental and operational considerations." During the March 16, 1993 Commission Hearing, Brigadier General Ballard of TABS, stated that the "primary reason" for not closing Fort Monroe was due to environmental restoration costs. During the March 22, 1993

Commission Hearing, Mr. Newsome of the Army stated that the application of military criteria was the basis for the decision not to close Fort Monroe.

On April 26, 1993, the Commission requested information from the Army on the process used in evaluating environmental impacts at Fort Monroe, the discrepancies in cost information, and the EBS questions that were not addressed in the Volume III report. The Commission's letter requested a response by May 10, 1993.

3. Impact on Base Status

The status of Fort Monroe, VA could potentially be revised given the possible improper use of environmental restoration costs in the Army's decision-making process.

Pending the Army's response to the Commission's April 26 letter, based on the Army's evaluation of criterion 8, there are no other recommended changes to the status of specific bases.

NAVY

1. Data Evaluation

The base-specific conclusions in the Navy's Recommendations and Analyses Report (Volume IV) were checked for accuracy by reviewing a subset of the individual Navy data calls on environmental issues. Each recommended closing, realigning, and receiving Navy installation was not reviewed, due to the large number of installations involved. The specific bases were selected based on the magnitude of the closure or realignment, and the environmental significance of the action (based on the judgement of the Commission staff). The conclusions documented by the Navy's Volume IV report accurately reflected the information from the Navy's data calls.

One issue noted in the Volume IV report that is not identified in the Navy's data calls is the status of air pollutant non-attainment areas. This information was included in the Volume IV report after the installation data calls were submitted, as the Naval Facilities Engineering Command compiled and entered data on non-attainment status from the Environmental Protection Agency.

2. Consistency/Compliance

In some specific cases, cost figures in cited in the Navy's Volume III report could be reconciled with costs noted in the base-specific data calls. In other cases these costs did not exactly match. Environmental costs were entered into COBRA for the Navy's recommended actions. Based on the Navy's BRAC-93 Scenario Development documentation, these costs include additional environmental compliance costs incurred as a result of closure or

realignment actions, and cost avoidances for environmental projects which are no longer necessary as a result of closure or realignment. Specific costs in COBRA could not be exactly reconciled with other cost documentation provided by the Navy.

The Navy's installation-specific data summarizes the environmental attributes consistently with DOD's policy guidance.

3. Impact on Base Status

No recommended change in any specific base's status due to the Navy's evaluation of criterion 8.

AIR FORCE

1. Data Evaluation

All Air Force installations impacted by major closures and realignments were reviewed to determine whether the Air Force's Recommendations and Analyses Report (Volume V) accurately reflected the information compiled in base-specific questionnaires. The Air Force assigned ratings (red, yellow, green) for twelve environmental factors in their Volume V report. These ratings did not accurately reflect the base questionnaires. For example, Plattsburgh AFB, NY is rated as "Y" for air quality, which means the base is located in a non-attainment area, and pollutants are classified as moderate or marginal. However, the base questionnaire for Plattsburgh indicates that it is not in a non-attainment area. In some cases the discrepancies are widespread. For example, on K.I. Sawyer AFB, eight of the twelve ratings in Volume V do not reflect the base questionnaire. Through discussions with the Air Force's Environmental Planning Division, it was learned that, in some cases, the Air Force's Base Capacity Evaluation Team, upon reviewing the questionnaires, revised the answers to the questionnaires. Revisions were based on the Team's evaluation of the base, and their knowledge of how the base completed the questionnaire. These revisions were based on the Team's professional judgement and are not documented.

The Air Force rated twelve environmental factors, and combined these into one overall environmental rating for each base. In assigning these overall ratings, the Air Force concluded that the twelve factors are not of equal value. However, they chose not to assign numerical values to weigh these factors. Instead, a qualitative approach was used, based on the judgement of the Air Force decision-makers. This qualitative approach was not documented.

2. Consistency/Compliance

Because the Volume V recommendations did not reflect the base questionnaire results and since the methodology for determining an

overall environmental rating was not documented, the Air Force has not demonstrated that their methodology was applied consistently within each base category.

As noted in General Compliance with Criterion 8, the Air Force did not consider Programmed Environmental Costs/Cost Avoidances in their environmental analyses in either the base questionnaires or the Volume V report. On April 2, 1993, the Defense Base Closure and Realignment Commission wrote to the Deputy Assistant Secretary of the Air Force (Installations) requesting the Air Force's explanation for not evaluating this environmental attribute. The Air Force responded that their evaluation process did include environmental compliance, but referred to a section of the base questionnaires that does not address these costs. A follow-up letter to the Air Force was signed by Chairman Courter on May 6, 1993.

Results of the Cost of Base Realignment Action (COBRA) model were reviewed for specific bases, and it was found that environmental costs were only entered for McClellan AFB and Newark AFB. For other recommended actions, the Air Force entered environmental costs of zero into the COBRA model.

Relative to the other Services, the Air Force's approach to evaluating criterion 8 provides minimal information on the environmental impacts of specific recommended closure or realignment actions. Whereas the other Services compiled baseline data, and subsequently evaluated environmental impacts from each specific recommended action, the Air Force compiled data on the current status of environmental conditions and summarized the impact of environmental attributes on continued military mission at each installation. The Air Force's approach does not examine specific actions to determine environmental impacts from closure or realignment. Despite the absence of this discussion regarding specific recommendations, the Air Force's approach is not inconsistent with DOD's guidance on considering environmental impacts, as environmental conditions at all impacted bases were summarized.

3. Impact on Base Status

It is unlikely the discrepancies in the Air Force's use of questionnaire data in assigning ratings would dramatically change the overall environmental ratings. Again, using K.I. Sawyer AFB as an example, four of the eight discrepancies give "higher" ratings (e.g. Yellow instead of Red), while four discrepancies give "lower" ratings (e.g. Yellow instead of Green). None of the recommended bases had discrepancies in ratings that would lead to major swings in the overall environmental ratings.

Although the documentation provided by the Air Force does not demonstrate an internally accurate or consistent methodology, and

apparently does not fully follow OSD's policy for evaluating environmental impacts, because the overall environmental ratings would not significantly change, and since this criterion was not a primary factor in the Air Force's decisions, it very unlikely that the status of any base would be revised due to the Air Force's analysis of the environmental criterion.

DEFENSE AGENCIES - Of the Defense Agencies impacted by BRAC-93, only the Defense Logistics Agency is being considered for major closures or realignments with environmental impacts.

1. Data Evaluation

The Defense Logistics Agency's (DLA's) Recommendations and Analyses Report (Part of Volume VI) accurately reflects the information compiled in DLA's environmental questionnaires for the recommended installations.

2. Consistency/Compliance

COBRA environmental costs were entered for DLA's recommended action at DPSC-Philadelphia, however these costs were not entered into COBRA for DESC-Dayton. The installation questionnaire for DESC-Dayton indicates that environmental costs at this facility are relatively low.

3. Impact on Base Status

No recommended change in base status due to evaluation of criterion 8.

RECOMMENDED CHANGES FOR BRAC-95

1. Specific, detailed direction should be given to the Services on how to evaluate environmental impacts. Guidance should be given on the perspective the Services should use to address each of the environmental attributes, and how the environmental impact of the Services' recommended actions should be evaluated.

2. The consideration of environmental costs should be modified to consider incremental restoration costs associated with closure.

There are several unique factors that contribute to additional restoration costs at closing bases.

a. The Community Environmental Response, Facilitation Act (CERFA) includes requirements unique to closing bases. There must be an assessment of the property to identify clean parcels in order to attempt to facilitate reuse. The costs of these assessments are

typically in the same order of magnitude as many of the compliance costs that are currently tracked under Programmed Costs/Cost Avoidances.

b. Investigation and cleanup acceleration is necessary due to pressure to convert to civilian use. Deadlines, unique to closing bases, for the completion of the investigation phase have been established by Congress. This acceleration will often lead to additional costs due to:

1) The need to use "off-the-shelf" cleanup technology rather than seeking more cost-efficient innovative approaches, which by their nature require more testing prior to application.

2) Spending incremental funds in near-term fiscal years, that is not currently programmed

c. In some cases, cleanup standards for converting to a new, civilian use may be more stringent than standards for continuing military use. This could result in significant incremental costs at closing bases, relative to restoration costs at bases that remain open.

NAVAL AVIATION DEPOTS
Capacity Data Call # 8
Military Value Data Call # 41

Activity Listing:

Type	Title	Location
Naval Aviation Depot	NADEP Cherry Point	MCAS Cherry Point NC
Naval Aviation Depot	NADEP Jacksonville	NAS Jacksonville FL
Naval Aviation Depot	NADEP North Island	NAS North Island CA

Type	Title
Naval Aviation Depot	Commander, Naval Air Systems Command Systems

NADEP STEP 1 CAPACITY ANALYSIS

	Capacity Measure	DLMHs (000s)			PERCENT EXCESS
		Predicted	Potential	Excess	
5	Airframes	3,149	4,053	905	22%
	Manufacturing	757	1,024	268	26%
	Components	1,765	5,088	3,323	65%
	Engines	481	1,381	900	65%
	A/C Service Support	5,437	5,641	204	4%
	Modifications	1,203	1,725	522	30%
	Total DLMHs	12,792	18,912	6,121	32%
6	Airframes	3,775	4,415	641	15%
	Manufacturing	1,037	1,070	34	3%
	Components	1,868	5,207	3,339	64%
	Engines	478	1,609	1,131	70%
	A/C Service Support	5,698	5,973	275	5%
	Modifications	1,313	1,746	432	25%
	Total DLMHs	14,169	20,020	5,852	29%
7	Airframes	3,899	4,553	654	14%
	Manufacturing	1,045	1,070	25	2%
	Components	1,788	5,371	3,583	67%
	Engines	433	1,557	1,124	72%
	A/C Service Support	5,490	5,892	402	7%
	Modifications	1,393	1,788	395	22%
	Total DLMHs	14,047	20,230	6,183	31%
8	Airframes	3,792	4,453	661	15%
	Manufacturing	895	1,070	175	16%
	Components	1,687	5,402	3,715	69%
	Engines	404	1,478	1,074	73%
	A/C Service Support	6,067	6,168	101	2%
	Modifications	1,168	1,733	565	33%
	Total DLMHs	14,013	20,304	6,291	31%
9	Airframes	3,426	4,400	975	22%
	Manufacturing	917	1,070	153	14%
	Components	1,541	5,402	3,861	71%
	Engines	438	1,486	1,048	71%
	A/C Service Support	5,638	6,168	529	9%
	Modifications	1,131	1,596	465	29%
	Total DLMHs	13,091	20,122	7,032	35%
0	Airframes	3,361	4,380	1,019	23%
	Manufacturing	943	1,070	127	12%
	Components	1,396	5,401	4,005	74%
	Engines	440	1,513	1,073	71%
	A/C Service Support	5,594	6,168	574	9%
	Modifications	838	1,475	637	43%
	Total DLMHs	12,572	20,006	7,434	37%
1	Airframes	3,326	4,439	1,113	25%
	Manufacturing	943	1,070	127	12%
	Components	1,398	5,404	4,005	74%
	Engines	448	1,511	1,062	70%
	A/C Service Support	5,594	6,168	574	9%
	Modifications	817	1,455	638	44%
	Total DLMHs	12,527	20,046	7,519	38%

Activities Included: Cherry Point
Jacksonville
North Island

NADEP Military Value Matrix (Post Audit)

12:07

Qu	DC	Pg	Qst	QUESTIONS	ERR	Criteria				Score	Total	ACTIVITIES			
						R	F	M	C			MV	CH PT	JAX	NIS
						40	25	10	25						
			27.3	PRODUCTION		0	0	0	0	0	30.67	16.71	19.11	17.60	
1	8	3	1.1	Is the NADEP capable of working on multiple T/M/S airframe requirements?		1	0	1	0	8	1.07	1	1	1	
1	8	3	1.1	Will the NADEP be capable of working on multiple T/M/S through FY 2001?		1	0	1	0	10	1.34	1	1	1	
1	8	24	4.1	Does the NADEP have multiple engine repair capability?		1	0	1	0	8	1.07	1	1	1	
1	8	24	4.1	Will the NADEP be capable of working on multiple engine requirements through FY 2001?		1	0	1	0	10	1.34	1	1	0	
1	8	15	3.1	Does the NADEP have component repair capability?		1	0	1	0	8	1.07	1	1	1	
1	8	15	3.1	Will the NADEP maintain component repair capability through FY 2001?		1	0	1	0	10	1.34	1	1	1	
1	8	43	7.1	Is the NADEP capable of performing Aircraft Modifications on multiple aircraft?		1	0	1	0	6	0.81	1	1	1	
1	8	43	7.1	Will the NADEP maintain capability to perform modifications through FY 2001?		1	0	1	0	8	1.07	1	1	1	
3	8	9	2.1	Does the NADEP have a missile repair capability?		1	0	1	0	1	0.13	0	0	0	
3	8	9	2.1	Will the NADEP be capable of working on missile requirements through FY 2001?		1	0	1	0	2	0.27	0	0	0	
1	8	30	5.1	Does the NADEP perform Aircraft Support Services?		1	0	1	0	8	1.07	1	1	1	
1	8	30	5.1	Will the NADEP maintain Aircraft Support Services through FY 2001?		1	0	1	0	10	1.34	1	1	1	
2	8	39	6.1	Does the NADEP possess Manufacturing capability?		1	0	1	0	4	0.54	1	1	1	
2	8	39	6.1	Will the NADEP maintain manufacturing capability through FY 2001?		1	0	1	0	6	0.81	1	1	1	
3	8	49	8.1	Is the NADEP capable of performing formal CIN designated training?		1	0	1	0	2	0.27	1	1	1	
3	8	49	8.1	Is the NADEP capable of performing formal CIN training through FY 2001?		1	0	1	0	4	0.54	1	1	1	
2	8	3	1.1	Is the amount of total annual depot level airframe work greater than 50% of the DON NADEP total?		1	0	1	0	7	0.94	0	0	0	
2	8	3	1.1	Is the amount of total annual depot level airframe work greater than 25% of the DON NADEP total?		1	0	1	0	5	0.67	1	1	1	
2	8	3	1.1	Is the amount of total annual depot level airframe work greater than 10% of the DON NADEP total?		1	0	1	0	3	0.40	0	0	0	
2	8	24	4.1	Is the amount of total annual depot level engine work greater than 50% of the DON NADEP total?		1	0	1	0	7	0.94	0	0	0	
2	8	24	4.1	Is the amount of total annual depot level engine work greater than 25% of the DON NADEP total?		1	0	1	0	5	0.67	1	1	0	
2	8	24	4.1	Is the amount of total annual depot level engine work greater than 10% of the DON NADEP total?		1	0	1	0	3	0.40	0	0	1	
2	8	15	3.1	Is the amount of total annual depot level component work greater than 50% of the DON NADEP total?		1	0	1	0	7	0.94	0	0	0	
2	8	15	3.1	Is the amount of total annual depot level component work greater than 25% of the DON NADEP total?		1	0	1	0	5	0.67	1	1	1	
2	8	15	3.1	Is the amount of total annual depot level component work greater than 10% of the DON NADEP total?		1	0	1	0	3	0.40	0	0	0	
3	8	9	2.1	Is the amount of total annual depot level missile/guidance work greater than 50% of the DON NADEP total?		1	0	1	0	3	0.40	0	0	0	
3	8	9	2.1	Is the amount of total annual depot level missile/guidance work greater than 25% of the DON NADEP total?		1	0	1	0	2	0.27	0	0	0	
3	8	9	2.1	Is the amount of total annual depot level missile/guidance work greater than 10% of the DON NADEP total?		1	0	1	0	1	0.13	0	0	0	
2	8	30	5.1	Is the amount of total annual depot level Support Service work greater than 50% of the DON NADEP total?		1	0	1	0	7	0.94	0	0	0	
2	8	30	5.1	Is the amount of total annual depot level Support Service work greater than 25% of the DON NADEP total?		1	0	1	0	5	0.67	0	1	1	
2	8	30	5.1	Is the amount of total annual depot level Support Service work greater than 10% of the DON NADEP total?		1	0	1	0	3	0.40	1	0	0	
2	8	39	6.1	Is the amount of total annual depot level Manufacturing work greater than 50% of the DON NADEP total?		1	0	1	0	5	0.67	0	0	0	
2	8	39	6.1	Is the amount of total annual depot level Manufacturing work greater than 25% of the DON NADEP total?		1	0	1	0	4	0.54	1	1	1	
2	8	39	6.1	Is the amount of total annual depot level Manufacturing work greater than 10% of the DON NADEP total?		1	0	1	0	3	0.40	0	0	0	
2	8	43	7.1	Is the amount of total annual depot level Aircraft Modification work greater than 50% of the DON NADEP total?		1	0	1	0	5	0.67	0	0	0	
2	8	43	7.1	Is the amount of total annual depot level Aircraft Modification work greater than 25% of the DON NADEP total?		1	0	1	0	4	0.54	0	1	1	
2	8	43	7.1	Is the amount of total annual depot level Aircraft Modification work greater than 10% of the DON NADEP total?		1	0	1	0	3	0.40	1	0	0	
3	8	49	8.1	Is the amount of formal CIN training greater than 50% of the DON NADEP total?		1	0	1	0	3	0.40	0	0	0	
3	8	49	8.1	Is the amount of formal CIN training greater than 25% of the DON NADEP total?		1	0	1	0	2	0.27	1	1	1	
3	8	49	8.1	Is the amount of formal CIN training greater than 10% of the DON NADEP total?		1	0	1	0	1	0.13	0	0	0	
3	41	21	14.2	In FY93, did the NADEP average 2000 or greater active and reserve work positions?		0	0	1	0	2	0.07	1	1	1	

R=Readiness F=Facilities M=Mobilization C=Cost

NADEP Military Value Matrix (Post Audit)

12:07

Qu Imp	DC No	Pg No	Ost Ltr	QUESTIONS	ERR				Score	Total MV	ACTIVITIES			
					Criteria						CH	PT	JAX	NIS
					R 40	F 25	M 10	C 25						
3	41	21	14.2	In FY93, did the NADEP average 1500 or greater active and reserve work positions?	0	0	1	0	1	0.03	0	0	0	
3	41	24	17.1	Have natural inhibitors impacted planned work in this NADEP by less than 5% annually?	1	0	1	1	1	0.24	1	1	1	
1	8	H20	3.1	Is the amount of total FY 1997 core workload at this NADEP greater than 50% of the DON NADEP total?	1	0	1	0	10	1.34	0	0	0	
1	8	H20	3.1	Is the amount of total FY 1997 core workload at this NADEP greater than 25% of the DON NADEP total?	1	0	1	0	8	1.07	1	1	1	
1	8	H20	3.1	Is the amount of total FY 1997 core workload at this NADEP greater than 10% of the DON NADEP total?	1	0	1	0	6	0.81	0	0	0	
EQUIPMENT AND FACILITIES					0	0	0	0	0	27.89	19.17	16.86	14.83	
2	41	4	1.2	Does the NADEP have special facilities, equipment, or skills to perform airframe repairs?	0	1	0	0	7	0.76	1	1	1	
2	41	5	4.2	Does the NADEP have special facilities, equipment, or skills to perform engine repairs?	0	1	0	0	7	0.76	1	1	1	
2	41	5	3.2	Does the NADEP have special facilities, equipment, or skills to perform component repairs?	0	1	0	0	7	0.76	1	1	1	
2	41	8	7.2	Does the NADEP have special facilities, equipment, or skills to perform aircraft modifications?	0	1	0	0	5	0.55	1	1	1	
3	41	8	8.2	Does the NADEP have special facilities, equipment, or skills to perform formal CIN training?	0	1	0	0	1	0.11	1	1	0	
3	41	4	2.2	Does the NADEP have special facilities, equipment, or skills to perform missile repairs?	0	1	0	0	2	0.22	0	0	0	
2	41	6	5.2	Does the NADEP have special facilities, equipment, or skills to support Aircraft Services?	0	1	0	0	7	0.76	1	1	1	
2	41	7	6.2	Does the NADEP have special facilities, equipment, or skills to perform manufacturing?	0	1	0	0	4	0.44	1	1	1	
1	41	4	1.2	Does the NADEP have DON unique facilities, equipment, or skills to perform airframe repairs?	1	1	0	1	10	3.15	1	1	0	
1	41	5	4.2	Does the NADEP have DON unique facilities, equipment, or skills to perform engine repairs?	1	1	0	1	10	3.15	1	1	0	
1	41	5	3.2	Does the NADEP have DON unique facilities, equipment, or skills to perform component repairs?	1	1	0	1	10	3.15	1	1	1	
1	41	8	7.2	Does the NADEP have DON unique facilities, equipment, or skills to perform aircraft modifications?	1	1	0	1	8	2.52	1	0	1	
2	41	4	2.2	Does the NADEP have DON unique facilities, equipment, or skills to perform missile repairs?	1	1	0	1	5	1.57	0	0	0	
1	41	7	6.3	Does the NADEP have DON unique facilities, equipment, or skills to perform manufacturing?	1	1	0	1	7	2.20	0	0	0	
1	41	6	5.2	Does the NADEP have DON unique facilities, equipment, or skills to perform aircraft support services?	1	1	0	1	10	3.15	0	0	1	
3	41	8	8.2	Does the NADEP have DON unique facilities, equipment, or skills to perform formal CIN training?	1	1	0	1	3	0.94	0	0	0	
2	41	9	9.1	Are less than 10% of the NADEP's facilities classified as inadequate?	0	1	0	1	7	1.50	1	1	1	
1	41	11	9.3	Are the NADEP's airframe repair facilities capable of handling the larger T/M/S A/C (P-3/C-130)?	0	1	1	0	9	1.28	1	1	0	
3	8	76	12.4	Is there undeveloped acreage at the NADEP/host site suitable for industrial expansion?	0	1	1	0	2	0.29	1	1	1	
3	41	23	16.1	Is there underutilized storage at the NADEP suitable for industrial expansion?	0	1	1	0	1	0.14	0	0	0	
3	41	23	16.1	Does the NADEP have surplus covered aviation-industrial space?	0	1	0	1	1	0.21	0	0	0	
3	41	23	16.2	With the completion of MILCON projects, will there be excess storage available?	0	1	0	1	1	0.21	0	0	0	
COST					0	0	0	0	0	13.06	6.73	5.92	8.44	
1	41	19	13.1	Is the FY 1997 overhead (G&A + PE) cost rate applied to direct labor less than \$35/hour?	0	0	0	1	10	1.05	0	1	1	
1	41	19	13.1	Is the FY 1997 hourly direct labor cost less than \$26/hour?	0	0	0	1	10	1.05	1	0	1	
1	41	19	13.1	Is the FY 1997 hourly fully burdened rate less than \$61/hour?	0	0	0	1	10	1.05	0	1	1	
1	41	19	13.1	Is the FY 1997 Production Expense (overhead)/fully burdened rate ratio less than 37%?	0	0	0	1	8	0.84	0	1	1	
1	41	19	13.1	Is the FY 1997 G&A (overhead)/fully burdened rate ratio less than 21%?	0	0	0	1	8	0.84	1	0	1	
1	41	15	11.1	Did capital improvements and MRP expenditures over the last seven years exceed \$75 million?	0	1	0	1	10	2.14	1	0	1	
2	41	15	11.1	Did capital improvements and MRP expenditures over the last seven years exceed \$50 million?	0	1	0	1	6	1.28	0	1	0	
2	8	72	10.3	Is the average MRP expenditures for the past 3 years > 2% of the average CPV?	0	1	0	1	6	1.28	0	0	0	
2	41	15	11.5	Are non-BRAC investments < 10% of the FY 1994 CPV planned over the next seven years?	0	1	0	1	6	1.28	0	0	1	
2	41	15	11.5	Are non-BRAC investments < 20% of the FY 1994 CPV planned over the next seven years?	0	1	0	1	7	1.50	1	1	0	
3	41	18	12.4	Does the NADEP use less than 3200 manhours per year to manage transportation?	0	0	0	1	2	0.21	1	1	1	
3	41	18	12.5	Is the NADEP clear of dependence on the parent air station for transportation support?	1	0	1	1	1	0.24	0	0	0	
3	41	12	10.1	Is the NADEP free of any contiguous support requirements (Police, Fire, etc)?	1	1	0	1	1	0.31	0	0	0	

R=Readiness F=Facilities M=Mobilization C=Cost

Sample Navy Mil Val.

07-Feb-95

NADEP Military Value Matrix (Post Audit)

12:07

Qu	DC	Pg	Qst	QUESTIONS	ERR	Criteria				Score	Total	ACTIVITIES			
						R	F	M	C			MV	CH PT	JAX	NIS
						40	25	10	25						
ENVIRONMENT AND ENCROACHMENT						0	0	0	0	0	10.56	10.56	7.43	8.17	
2	41	32	21.1	Is the NADEP clear of ground encroachment issues?		0	1	0	0	6	0.66	1	1	1	
2	41	32	21.1	Is the NADEP clear of noise encroachment issues?		1	1	0	0	7	1.47	1	1	1	
3	41	32	20.1	Is the NADEP clear of environmental restrictions that would inhibit expansion?		0	1	1	0	4	0.57	1	1	1	
3	41	32	21.1	Is the NADEP clear of airspace encroachment issues?		0	1	0	0	3	0.33	1	1	1	
1	33	12	5	Host site is in an "attainment" or "maintenance" air quality control area for CO, ozone, PM-10.		1	1	0	1	10	3.15	1	0	0	
1	41	32	20.3	Does this NADEP have any specific capabilities for handling/disposing of hazardous waste/material?		1	1	0	1	10	3.15	1	1	1	
2	33	12	5	NADEP/host site operations or development plans have not been restricted due to air quality considerations.		1	1	0	0	6	1.26	1	1	0	
QUALITY OF LIFE						0	0	0	0	0	4.49	1.96	3.32	3.32	
3	41	38	24.1	Does the site have > 90% of the listed MWR facilities?		0	1	0	1	4	0.86	0	0	0	
3	41	46	30.1	Do > 50% of site military and civilian personnel live within a 30 minute commute?		1	0	0	1	4	0.82	1	1	1	
3	41	48	31.2	Are there educational opportunities at all college levels within a 30 mile radius (off base)?		1	0	0	1	4	0.82	0	1	1	
3	41	49	31.3	Are college education courses available on the base?		1	0	0	1	4	0.82	1	1	1	
3	41	51	34.1	Is the violent crime rate < 758/100,000?		0	0	0	1	1	0.10	1	0	0	
3	41	51	34.1	Is the property crime rate < 4902/100,000?		0	0	0	1	1	0.10	1	0	0	
3	41	51	34.1	Is the drug crime rate < 402/100,000?		0	0	0	1	1	0.10	1	0	0	
3				Is there sufficient off base housing?		0	1	0	1	4	0.86	0	1	1	
STRATEGIC CONCERNS						0	0	0	0	0	8.43	8.43	8.43	8.43	
1	41	22	15.1	Is the NADEP located within 25 miles of all transportation modes?		0	0	1	1	7	0.97	1	1	1	
2	41	23	16.3	Is there commercial aviation industrial space within 1 hour drive of NADEP?		0	0	1	0	4	0.13	1	1	1	
2	41	22	15.3	Does the NADEP have the capability to offload an aircraft from a ship/barge at the host base?		1	1	0	1	6	1.89	1	1	1	
1	41	22	15.4	Is this NADEP participating in the Regional Maintenance Concept?		1	1	0	1	9	2.83	1	1	1	
2	41	22	15.4	Are three or more "I" level maintenance activities located within a 25 mile radius of the NADEP?		0	0	1	1	4	0.55	1	1	1	
2	41	22	15.5	Is this NADEP capable of providing rapid response to fleet customers because of its location?		1	0	0	1	6	1.23	1	1	1	
2	41	22	15.5	Are more than 25 major customers located within a 100 mile radius of the NADEP?		1	0	0	1	4	0.82	1	1	1	
CUSTOMERS						0	0	0	0	0	5.04	2.90	3.16	2.63	
2	41	H12	3.1	Does the NADEP repair Army aircraft through FY 1997?		1	0	1	0	6	0.81	0	0	0	
2	41	H12	3.1	Does the NADEP repair Air Force aircraft through FY 1997?		1	0	1	0	6	0.81	1	1	1	
2	41	H12	3.1	Does the NADEP repair Coast Guard aircraft through FY 1997?		1	0	1	0	6	0.81	1	1	1	
3	8	63	3.2	Does the NADEP repair Foreign aircraft through FY 1997?		0	0	1	0	4	0.13	1	1	1	
2	8	H63	3.2	Is the amount of total FY 1997 LSOR workload greater than 50% of the DON NADEP total?		1	0	1	0	7	0.94	0	1	0	
2	8	H63	3.2	Is the amount of total FY 1997 LSOR workload greater than 25% of the DON NADEP total?		1	0	1	0	5	0.67	1	0	0	
2	8	H63	3.2	Is the amount of total FY 1997 LSOR workload greater than 10% of the DON NADEP total?		1	0	1	0	3	0.40	0	0	1	
3	41	31	19	Does the NADEP provide any direct benefit to the aircraft maintenance effort at the host air station?		1	0	1	1	2	0.48	1	1	1	

72 39 62 42

100 67.47 64.03 61.13

Avg MV: 64.21

NADEP Military Value Matrix

QUESTIONS	Criteria				Ch Pt	Jax	NI
	R	F	M	C			
PRODUCTION	40	25	10	25	18.71	19.11	17.50
EQUIPMENT AND FACILITIES	44	0	46	1	19.17	16.66	14.63
COST	8	22	3	11	5.73	5.92	8.44
ENVIRONMENT AND ENCROACHMENT	2	6	1	13	10.58	7.43	6.17
QUALITY OF LIFE	4	7	1	2	1.96	3.32	3.32
STRATEGIC CONCERNS	3	2	0	8	8.43	8.43	8.43
CUSTOMERS	4	2	3	6	2.90	3.16	2.63

NADEP MODELING RESULTS
09 Nov 1994

Option	Activity			% Excess	Average MilVal
	Cherry Point	Jax	North Island		
PRIMARY				38.6%	64.21
10% More				38.6%	64.21
10% Less				38.6%	64.21
20% Less				38.6%	64.21

Note: Percent excess is based on (FY 2001) requirement.

██████████ = Closed

*Break point reached at 34% reduction in workload requirement.
(Result: Close North Island)*

Rules Applied to the Model

1. Average military value is maintained.

4.11.95

To: Commissioner Benjamin Montoya
From: Deirdre Nurre, Interagency Team Environmental Analyst
Through: Ben Borden, Director of Review and Analysis
RE: DRAFT Costs of Compliance and Costs of Cleanup for Air Force Logistic Centers (ALCs)

You requested me to provide data on costs of compliance and costs of cleanup for Air Logistic Centers. The following draft response presents such information budgeted for the Air Force Bases hosting ALCs for Fiscal Year 1995.

My analysis of compliance costs derives from the comprehensive base questionnaires which were answered at the base level. The questionnaires permitted individual bases some flexibility in categorizing environmental compliance costs. Thus, comparing costs from one base to another cannot be done with much specificity. Environmental cleanup costs for ALC bases were submitted to the Commission by the Base Closure Executive Group.

ENVIRONMENTAL COMPLIANCE BUDGET AT ALC BASES FOR FY95

ALCs	Haz Waste Disposal	Natural Resources	Permits	General - Est.
Hill	\$ 1,300,000.00	\$ 784,000.00	\$ 175,000.00	\$ 1,863,000
Robins	1,500,000.00	176,000.00	498,000.00	7,730
Tinker	5,653,000.00	630,000.00	105,000.00	15,676
Kelly	2,384,000.00	0-	0-	1,27
McClellan	1,321,000.00	112,000.00	158,000.00	4

ENVIRONMENTAL CLEANUP BUDGET AT ALC BAS

ALCs	Year Complete	Costs to FY94-Actual	Costs FY95 to /
Hill	2050	\$ 110,000,000.00	\$
Robins	2011	1,512,000.00	
Tinker	2023	36,600,000.00	
Kelly	2023	95,000,000.00	
McClellan	2034	130,661,000.00	

I. Environmental Compliance Costs:

Hazardous Waste Disposal/Remediation: This figure includes costs of storing, treating, and disposing of hazardous and toxic wastes, as well as immediate spill response activities. This figure could vary from one year to the next according to the kinds of waste-producing industrial activities and status of storage compliance efforts which increase or decrease from year to year.

Natural Resources: This figure funds the base's natural resources management plan, wetlands inventory, forest survey, and timber management including the planting of new trees as needed. The figure varies from one base to another depending upon natural factors such as existence of wetlands and endangered species, and could vary over time depending upon scheduled requirements to complete surveys and inventories.

Permits: Funds identified in this category pay for permits including National Pollution Discharge Elimination System (NPDES) Permits for wastewater, permits for stormwater runoff, and operating permits established under Title V of the Clean Air Act. Note that the amounts identified purchase the permits and do not pay for cost of compliance with permits. The cost of one permit at one base was estimated; all other permits costs reported are reflected in the base questionnaire.

General: This category groups a number of cost categories together for purposes of this brief analysis, because the Air Force environmental offices which submitted data identified their compliance costs in categories which were not comparable. Among the activities grouped under this category may include, but are not limited to:

- Underground Storage Tank (UST) survey and remedial work.
- Resource Conservation and Recovery Act (RCRA) costs for spill control plans, spill control supplies, and compliance training
- National Environmental Policy Act (NEPA) costs for completion of Environmental Impact Statements
- Compliance with air, NPDES, and stormwater permits
- Capital purchases for pollution control equipment such as air scrubbers, etc.

II. Cleanup Costs:

Costs to complete cleanup are estimates which could change depending upon several factors. Additional contamination discovered as investigation and cleanup proceeds, contaminated areas which prove not to be as extensive as initially estimated, and changing costs of developing technologies for investigation and cleanup could increase or decrease estimated costs. In general, the earlier a base is in the Remedial Investigation/Feasibility Study (RI/FS) process, the more uncertain is the knowledge of contamination, and the less accurate is cost to completion.

NAVAL SHIPYARDS - Military Value Matrix

Note: This matrix reflects corrections of discrepancies identified by Naval Audit Service.

Que Imp	DC No	Pg No	Ost No	QUESTIONS	M.V. Criteria/Weights				Score	TOTAL MV	RESPONSES						
					R 40	F 25	M 15	C 20			PORTS	NORVA	LONGB	PUGET	PEARL	GUAM	
2	42	6-17	1	Did or will the NSY perform COH/ROHs on LHD/LHA/LKA/AGFs from FY 1990-1997?	1	0	1	0	7	0.85	0	1	1	0	0	0	
3	42	6-17	1	Did or will the NSY perform DSRA/SRAs on LHD/LHA/LKA/AGFs from FY 1990-1997?	1	0	1	0	4	0.49	0	1	1	0	1	0	
3	42	6-17	1	Did or will the NSY perform DPMA/PMA on LCC/LKA/LPD/LPH/LSD/LSTs from FY 1990-1997?	1	0	1	0	4	0.49	0	1	1	0	0	0	
2	42	6-17	1	Did or will the NSY perform COH/ROHs on CVs from FY 1990-1997?	1	0	1	0	7	0.85	0	0	1	0	0	0	
3	42	6-17	1	Did or will the NSY perform DSRA/SRAs on CVs from FY 1990-1997s?	1	0	1	0	4	0.49	0	1	1	0	0	0	
2	42	6-17	1	Did or will the NSY perform ROHs on CGs from FY 1990-1997?	1	0	1	0	7	0.85	0	1	1	0	1	0	
3	42	6-17	1	Did or will the NSY perform DPMA/PMA on CGs (POST NTU) from FY 1990-1997?(NTU)	1	0	1	0	4	0.49	0	0	0	0	1	0	
3	42	6-17	1	Did or will the NSY perform DSRA/SRAs on CGs from FY 1990-1997?	1	0	1	0	4	0.49	0	1	1	0	1	0	
2	42	6-17	1	Did or will the NSY perform ROH/DSRA/SRAs on DDG-993/DDG-51s from FY 1990-1997?	1	0	0	0	7	0.49	0	0	1	0	1	0	
3	42	6-17	1	Did or will the NSY perform ROH/DPMA/PMA/DSRA/SRAs on DDs from FY 1990-1997?	1	0	1	0	3	0.37	0	1	1	0	1	0	
3	42	6-17	1	Did or will the NSY perform ROH/DSRA/SRAs on ASR/ATs from FY 1990-1997?	1	0	1	0	1	0.12	0	0	0	0	0	0	
3	42	19	1.2	Did or will the NSY perform SCOs on floating drydocks such as ARD/ARDM/AFDB/AFDL/AFDMs from FY 1990-1997?	1	0	1	0	1	0.12	0	1	1	0	1	1	
3	42	6-17	1	Did or will the NSY perform depot level nuclear shipwork on tenders or moored training ships from FY 1990-1997?	1	1	0	0	4	0.57	0	1	0	1	0	0	
3	42	19	1.2	Did or will the NSY inactivate fossil fueled ships from FY 1990-1997?	1	0	0	0	2	0.14	0	1	1	1	0	1	
3	42	6-17	1	Did or will the NSY perform DPMA/PMA on AVT/AOE/AORs from FY 1990-1997?	1	0	1	0	3	0.37	0	0	1	0	0	0	
3	42	6-17	1	Did or will the NSY perform DSRA/SRA/DPMA/PMA on FF/FFG/FFTs from FY 1990-1997?	1	0	1	0	3	0.37	0	0	1	0	1	0	
3	42	6-17	1	Did or will the NSY perform DPMA/PMA on MCM/MSOs from FY 1990 through FY 1997?	1	0	1	0	2	0.24	0	0	0	0	0	0	
3	42	6-17	1	Did or will the NSY perform DPMA/PMA on AD/AS/AR/AE/AFS/ATF/ARs from FY 1990-1997?	1	0	1	0	2	0.24	0	1	0	0	0	1	
3	42	6-17	1	Did or will the NSY perform DSRA/SRAs on MHCs from FY 1990-1997?	1	0	1	0	2	0.24	0	0	0	0	0	0	
2	42	23	2.2	Does the NSY provide planning yard support to CVNs?	1	0	0	0	5	0.35	0	1	0	1	0	0	
2	42	23	2.2	Does the NSY provide planning yard support to SSBNs?	1	0	0	0	5	0.35	0	0	0	0	0	0	
2	42	23	2.2	Does the NSY provide planning yard support to SSNs?	1	0	0	0	5	0.35	1	0	0	0	0	0	
3	42	23	2.2	Does the NSY provide planning yard support to CGNs?	1	0	0	0	1	0.07	0	1	0	0	0	0	
2	42	23	2.2	Does the NSY provide planning yard support to Aegis surface combatant ships?	1	0	0	0	5	0.35	0	0	0	0	0	0	
3	42	23	2.2	Does the NSY provide planning yard support to CVs?	1	0	1	0	3	0.37	0	1	0	1	0	0	
3	42	23	2.2	Does the NSY provide planning yard support to large assault ships?	1	0	1	0	3	0.37	0	1	0	1	0	0	
3	42	23	2.2	Does the NSY provide planning yard support to other surface combatant and patrol ships?	1	0	1	0	2	0.24	0	0	1	0	1	0	
3	42	23	2.2	Does the NSY provide planning yard support to other assault ships?	1	0	1	0	2	0.24	0	0	0	1	0	0	
3	42	23	2.2	Does the NSY provide planning yard support to mine warfare ships?	1	0	1	0	2	0.24	0	0	0	1	0	0	
3	42	23	2.2	Does the NSY provide planning yard support to combat logistic ships(AOE/AFS/AO/AE/AOR)?	1	0	1	0	2	0.24	0	0	0	1	0	0	
3	42	23	2.2	Does the NSY provide planning yard support to mobile logistic ships (AD/AS)?	1	0	1	0	2	0.24	0	1	0	0	0	0	
3	42	23	2.2	Does the NSY provide planning yard support to other auxiliary ships/craft/docks?	1	0	1	0	2	0.24	1	1	0	1	1	0	
1	42	23	2.1	The NSY has DON unique facilities, equipment, or skills.	1	1	0	1	10	2.25	1	0	0	0	0	0	
QUALITY OF LIFE					0	0	0	0	0	3.32	2.70	1.68	1.83	2.70	2.01	2.08	
3	42	38	17.1	Does the site have >90 per cent of the listed MWR facilities?	0	1	0	1	4	0.62	0	0	0	0	0	0	
3	65	3	1.b.1.	Do > 50 per cent of site military and civilian personnel live within a 30 minute commute?	1	0	0	1	4	0.61	1	0	1	1	0	0	
3	42	48	24.2	Are there educational opportunities at all college levels within a 30 mile radius (off base)?	1	0	0	1	4	0.61	1	1	1	1	1	1	
3	42	49	24.3	Are college education courses available on the base?	1	0	0	1	4	0.61	1	1	1	1	1	1	
3	National Crime Statistics	42	15.5	Is the violent crime rate < 758/100,000?	0	0	0	1	1	0.08	1	1	0	1	1	1	
3				Is the property crime rate < 4902/100,000?	0	0	0	1	1	0.08	1	0	0	1	0	1	1
3				Is the drug crime rate < 402/100,000?	0	0	0	1	1	0.08	1	0	0	1	1	1	1
3	42	42	15.5	Is there sufficient off base housing?	0	1	0	1	4	0.62	1	1	0	1	1	1	
CREWS OF CUSTOMER SHIPS					0	0	0	0	0	3.25	1.88	0.00	1.89	2.69	1.70	0.00	
1	42	39	14.2	Are more than 40 per cent of crews of customer ships berthed in the BEQ/BOQ?	0	1	0	1	10	1.55	1	0	1	1	0	0	
1	42	39	14.2	Are more than 20 per cent of crews of customer ships berthed ashore (homeport/own quarters)?	0	1	0	1	7	1.08	0	0	0	1	1	0	
3	42	39	14.2	Are more than 10 per cent crews of customer ships berthed on barges?	0	1	0	1	4	0.62	0	0	0	0	1	0	
					102	56	63	42									

100 37.83 54.07 38.04 57.61 44.71 24.25

Average = 42.75

NSYDs / SRF CONFIGURATION MODELING RESULTS

Option	Activity						% Excess	Average MilVal
	Portsmth	Norfolk	Puget Snd	Long Bch	Pearl Hrb	Guam		
PRIMARY							1	52.13
SECONDARY							2	49.84
TERTIARY							4	45.16
10% More							14	48.61
2nd							14	46.87
3rd							16	43.74
10% Less							-6	49.91
2nd							-6	44.55
3rd							-3	43.49
20% Less							-22	45.31
2nd							-22	43.31
3rd							-12	45.54
All NUCs + Guam OPEN							21	43.69
NUCs OPEN							19	48.56

Note : Per cent excess is based on constant (FY 2001) requirement.

= Closed

Initial Average MilVal: 42.75

Rules Applied to the Model

1. Average military value is maintained
2. Nuclear workload accomplished only by nuclear-capable shipyards
3. Nuclear capacity can be utilized to meet both nuclear and non-nuclear requirements

PRELIMINARY MATRIX FOR GENERAL COMPLIANCE WITH THE ENVIRONMENTAL IMPACTS

*OK
This may help
in your Gen. Compl.
form copy
Bsh*

	AF - all bases	Army - impacted bases	Navy - impacted bases	DLA - impacted bases
Thrtnd or Endngrd Species	YES	YES	YES	YES
Wetlands	YES	YES	YES	YES
Hist or Archeol Sites	YES	YES	YES	YES
Pollution Control	YES	YES	YES	YES
Haz. Mtls/Wst	YES	YES	YES	YES
Land Use and Airspace	YES, but no land use constraints due to contamination	YES, impacts from contam. documented	YES, no mention of contam.	YES, uncertain on contam.
Pgm Costs/ Cost Avdnce	NO, IRP costs only	NO, IRP costs only	YES, include asbestos (IRP?)	YES

YES = ATTRIBUTE HAS BEEN SUMMARIZED CONSISTENTLY WITH OSD GUIDANCE

NO = REVIEW TO DATE INDICATES THAT OSD GUIDANCE HAS NOT BEEN FOLLOWED

SERVICE EVALUATION APPROACHES:

AIR FORCE: Environmental Attribute Impact on Continued Military Operations

ARMY: Environmental Attribute Impact on Closure

NAVY: Closure Impact on Environmental Attribute

DLA: Closure Impact on Environmental Attribute

ENVIRONMENTAL CARRYING CAPACITY

- 1. DEFINITION:** Composite consideration of various environmental factors.
- 2. PURPOSE:** Measure the ability of the Army to conduct current missions, receive additional units and expand operations in light of environmental constraints.
- 3. METHODOLOGY:** This is a measure of the following aspects of environmental carrying capacity:

<u>FACTOR</u>	<u>WEIGHT</u>
Archaeology & Historic Buildings	10
Endangered Species	15
Wetlands	15
Air Quality	15
Water Quality	15
Noise Quality:	
Zone II off post	10
Zone III off post	15
<u>Contaminated Sites</u>	5
Total	100

- 4. REFERENCES:** The most recent reference as identified for each factor.
- 5. UNIT OF MEASURE:** Composite index. A sub-model is used with the factors defined as:

Archeology/Historic Buildings Factor = A/B

A = (Number of sites/structures listed on the National Register(NR)) + (Number of sites determined eligible or potentially eligible for the NR)

B = Total installation acres.

DATA Sources: Installation Cultural Surveys, Installation environmental office, National Register (NR), Installation Historic Preservation Plan, Installation EIS, SHPO.

Endangered Species Factor = Number of FEDERAL endangered and threatened species (plant or animal) present on the installation.

DATA Sources: Installation biological surveys, Installation Master Plan NEPA document or equivalent, Installation Environmental Office.

Wetlands Factor = A/Total Installation Acres

A = Total wetlands acreage.

DATA Source: Installation wetlands inventory, National wetlands inventory, Installation master plan NEPA document or equivalent.

Air Quality Factor =

1 if air quality region is in attainment.

10 if air quality region is not in attainment.

DATA Source: AEHA surveys, Installation master plan NEPA document or equivalent, Installation Air Quality inventory.

Water Quality Factor = Number times the installation has exceeded the parameters of the NPDES permits during FY 1992.

DATA Source: Installation Environmental office, Installation Master plan NEPA document or equivalent.

Noise Quality Factor = Total area (acres) of AICUZ/ICUZ zones II and/or III that extend offpost.

DATA Sources: Installation Master plan NEPA document or equivalent, Installation ICUZ/AICUZ.

Contaminated Sites Factor = A+B

A = Total number of IRP sites

B = Total number of NPL sites

DATA Sources: USATHAMA surveys, Installation environmental office.

6. ATTRIBUTE SCORING: Composite number larger value is a better score.

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TSAD

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*An Independent Methodology
For Estimation of Environmental
Restoration Cost (continued)*

**Products and
Service**

Battelle offers the ARAM tool packaged in a variety of product forms tailored to the clients needs and to the client's computer technology support staff. ARAM can be installed at the client's site with training, technical support and long term maintenance. Battelle will also run and provide ARAM results for specified sites and technological regions. From single sites to multiple sites encompassing hundreds of square miles in extent, ARAM is your tool of choice for keeping easily overestimated remediation costs to a minimum and within budget.

3/30/93

THE COST OF REMEDIAL ACTION MODEL

EPA developed the Cost of Remedial Action (CORA) model in 1987, and updated it most recently in May, 1990. CORA was developed to enable EPA to estimate outyear remedial action budgets. The U.S. Navy purchased CORA and has used it in their Installation Restoration Program since FY-1989.

The CORA model can give cost estimates for the use of 42 different cleanup technologies with a target accuracy of from -30% to +50%. Costs are based on the type of contamination, extent of contamination (concentration and volume), type of technology, desired cleanup standard, and information on the contaminated media (e.g. soil type, aquifer characteristics).

During the March 22, 1993 Commission Hearing, the Navy estimated that the restoration costs for all 23 Round III closing bases was \$600 Million. Chairman Courter expressed doubt as to whether this estimate was high enough. In response, Ms. Munsell of the Navy stated that an EPA model was used to come up with the estimate. This is the CORA model.

It is important to understand that the CORA model does not address two important parts of a typical cleanup. CORA does not estimate costs for the investigation phase (RI/FS) of work. It is not uncommon for this work to cost several \$ Million for a relatively simple facility. Facilities with widespread contamination usually incur investigation costs greater than \$10 Million. Additionally, CORA does not estimate the long term Operation and Maintenance costs of groundwater extraction systems. Cost for these systems, which may sometimes need to operate for decades, can run in the tens of \$ Million each.

Although CORA can give accurate cost estimates when accurate information on contamination, etc. is known, many DOD facilities are not yet far enough along to enter accurate input. Three of the 23 Navy facilities proposed for closure in Round III are on the Superfund National Priorities List (NPL). One of these, MCAS El Toro, is still in the process of identifying the number of contaminated sites on the facility. Based on El Toro's current schedule, it is unlikely the Navy will have appropriate information to input into CORA before 1996. Given priorities for funding within the Navy, it is likely that the characterization of contamination at non-NPL sites is not as far along as it is at NPL sites.

Considering the limits on what the CORA model considers, and the status of characterization work by the Navy, the estimates of cleanup costs should be considered very preliminary.

An EPA fact sheet on the CORA model is attached for additional information.



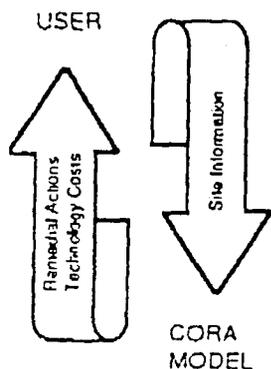
The Cost of Remedial Action Model

Office of Emergency and Remedial Response
Hazardous Site Control Division (OS-220W)

Quick Reference Fact Sheet

INTRODUCTION

The Cost of Remedial Action (CORA) model is a computerized expert advisor used to select remedial actions for Superfund hazardous waste sites and estimate their costs. It may also be used for RCRA corrective actions. The model is used for both current site-specific estimates, and for program budgeting and planning.



The expert system, with its technical information and regulatory interpretations, interacts with the user to guide in the selection of a remedy and to recommend a range of remedial action technologies at a specific site. The cost system is used to develop cost estimates for the remedial action scenario. The system provides order-of-magnitude estimates for both capital and annual O&M costs. The user must manually extrapolate these costs to determine total present and future worth. The model is not currently designed to develop multiyear groundwater treatment scenarios. Both the expert system and the cost system have been validated, and the model has gained widespread use since its first release in 1987. Version 3.0 was released in May 1990.

This short sheet describes the following aspects of the CORA model:

- Development
- Testing
- Structure and function
- Applications.

Finally, the short sheet provides additional sources of information on the CORA model.

DEVELOPMENT OF THE CORA MODEL

The Superfund program requires accurate cost estimates to manage current activities and develop budgets. In order to improve the accuracy and objectivity of cost estimates, EPA conducted a study in 1983 to quantitatively define pricing factors for remedial actions. A modeling approach was selected to develop pricing factors because of limited historical construction cost information. Information used to develop these early cost models included data about conditions at a sample of Superfund sites, categorizations of site types, and guidance criteria for selecting remedies. This information was aggregated to obtain budget pricing factors.

In 1985, EPA attempted to dis-aggregate early modeling results to obtain site-specific estimates. The variability of these estimates confirmed the need for different modeling tools to determine accurate site-specific costs. In addition, EPA needed a method to estimate remedial action costs in the pre-feasibility stage of analysis. The CORA model was developed in response to these needs, and is used to select remedial action technologies and estimate Superfund costs on a site-specific basis.

TESTING OF THE CORA MODEL

In order to confirm the accuracy of the CORA model, a validation exercise was performed by an independent consultant. The methodology employed by the study included examining the technology being implemented at each site, loading this data into the CORA model, and comparing CORA estimates with actual costs (either bid or construction). In May of 1987, the model was used to examine cost estimates for 12 sites. The twelve sites were either in final design, had bids established, or were in construction. Results of the analysis showed nine of the 12 were in the range of -30% to +50% of the CORA projections. Modifications were made to the model and the results obtained in June of 1988 showed all 12 sites to be within range.

The consultant also conducted a subjective evaluation of the expert system of the model. This aspect of the validation exercise sought to determine whether the CORA model recommendations conformed with good hazardous waste engineering practice, and were reasonable solutions from an engineering perspective. Results showed the model to be successful in meeting both criteria.

In a separate validation study conducted in 1990, the Department of Energy reviewed 25 RODs against the recommendations generated by the CORA model on these 25 sites. Results of this comparison revealed that 97% of the CORA model recommendations appeared as ROD alternatives.

STRUCTURE AND FUNCTION OF THE CORA MODEL

The CORA model includes two independent subsystems: an expert system and a cost system. The expert system uses site information generally accessible at the remedial investigation stage to recommend a range of remedial response actions from among 42 different technologies (see table). The cost system is used to develop estimates for the technologies selected, or may be used to independently assess remedy recommendations from other sources. The following subsections describe the expert system and the cost system more fully.

CORA SYSTEM COMPONENT DETAILS Technology Cost Modules

Containment Technologies:

Soil Cap
Asphalt Cap
Multilayered RCRA Cap
Surface Controls
Slurry Wall

Removal Technologies:

Drum Removal
Soil Excavation
Sediment Dredging
Pumping Contained Wastes
Groundwater Extraction
Active Landfill Gas Collection

Treatment Technologies:

Air Stripping
Vapor Phase Carbon
Activated Carbon
Metals Precipitation
Activated Sludge
Soil Vapor Extraction
Soil Flushing
Home Carbon Units
Offsite RCRA Treatment
Offsite RCRA Incineration
Onsite Incineration
Solidification
InSitu Biodegradation
Ion Exchange
Pressure Filtration
Flaring
Soil Slurry Bioreactor
InSitu Stabilization

Disposal Technologies:

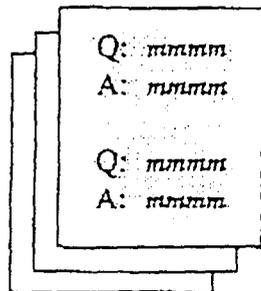
Offsite RCRA Landfill
Onsite RCRA Landfill
Below Grade
Above Grade
Offsite Solid Waste Landfill
Discharge to POTW
Discharge to Surface Water
Water ReInjection
Water Infiltration

Miscellaneous Technologies:

Transportation
Municipal Water Supply
Groundwater Monitoring
Access Restrictions
Health and Safety
Site Preparation
Site Administration

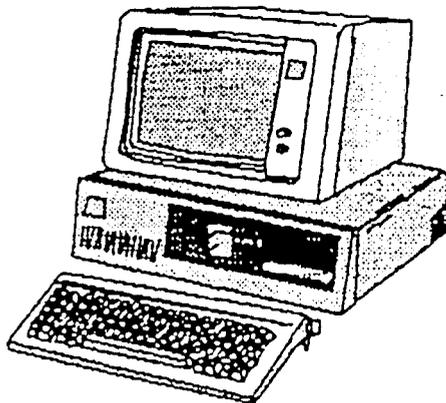
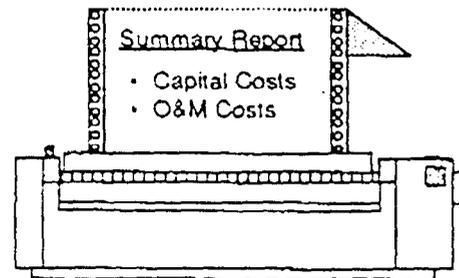
Expert System

The expert system contains the data that enables the CORA model to evaluate the information provided by the user. The user defines the site by responding to system-selected questions for waste types within a contaminated area of the site. The expert system analyzes the site based on user responses by focusing on up to 13 different types of waste matrices ranging from contaminated soils to bayous, to drums, to buildings, and offers recommendations to remedy the site. The CORA expert system's knowledge bases have approximately 670 decision rules to apply the 42 available technologies. The decision rules incorporate technology-specific engineering expertise, statute interpretations, and policy issues. The user can change responses to questions posed by the system, but cannot alter the decision rules. The system provides paper output of questions and responses to questions for future use. Thus, the system enables the user to perform sensitivity analyses by exploring alternative outcomes based on different site information.



Cost System

The CORA cost system is used to develop order-of-magnitude cost estimates (-30% to +50%) for sites after the response action scenarios are developed, using the expert system or other sources. The CORA cost system organizes cost estimates by site, operable unit, scenario, and technology. The system and the user interact to complete this information for a site previously entered into the data base or for a new site. The CORA cost system calculates capital and first-year operation and maintenance (O&M) cost estimates for each technology selected. The user may save outputs to a data base for subsequent analysis. In addition, the CORA model generates a total summary report for a site or operable unit for both capital and O&M costs. The summary report includes costs incurred by construction and operation of individual unit processes and operations, costs for items such as site preparation and administration, startup, permitting and legal services, permit and insurance renewal, services during construction, and bid and scope contingencies.



Hardware Requirements

The CORA model requires the following computer hardware specifications:

- IBM compatible PC
- MS-DOS environment
- 640K RAM
- 3 MB of hard disk space.

The CORA model is a stand-alone application, not designed for LAN use.

PRESENT AND FUTURE APPLICATIONS OF THE CORA MODEL

The CORA model is a powerful tool that saves time and increases the user's awareness of the scoping process, policy issues, technology costs, and design factors when selecting remediation schemes. Users have reported that, in particular, the expert system increases awareness of regulatory requirements and restrictions. The model also familiarizes them with basic design elements and individual technology costs. The CORA model has been used for several purposes since it was developed, tested, and approved. The CORA model was used to make cost estimates for 97 Superfund sites likely to be FY 1989 remedial action candidates. The results of the CORA expert system and cost system runs were combined with other information to develop EPA's FY 1989 budget. The model has subsequently been used to develop costs for components of FY 1991 and 1992 budgets. CORA model data has helped EPA shape the selection of remedies under SARA.

The CORA model was applied to Navy installation restoration program sites to estimate Defense Environmental Restoration Act funding for FY 1989, 1990, and 1991. In addition, the Department of Defense uses the CORA model to develop remedial action strategies and estimate their total remediation costs.

APPLICATIONS OF THE CORA MODEL		
User: EPA	Purpose: • Develop Superfund remediation budgets • Perform initial site-specific remediation scoping	Benefits: • Saves time -- 1-3 hours to scope and cost a remedial action scenario vs. 20-60 hours without the model
Other Federal Agencies	• Estimate outyear and total programmatic remediation budgets	
Private Industry	• Anticipate cost effects for Regulatory Impact Analyses of new environmental regulations	• Increases users' awareness of scoping, policies, regulations, design factors, and technology costs
States	• Estimate site-specific remediation budgeting and scoping	
All of the Above	• Screen, scope, and budget for technology of RCRA Corrective Actions and closures	

As the model is upgraded, new versions will become available. The newest version was released in May 1990 and includes several new technologies, new cost algorithms, and new market prices for offsite technologies.

TO OBTAIN THE CORA MODEL OR MORE INFORMATION

The CORA model may be obtained from EPA for \$280, the cost of reproduction and support. The CORA model package consists of 8 diskettes, a comprehensive user's manual, and one hour of telephone information and assistance. The user's manual contains required information about remedial technologies, cost assumptions, design ranges, technology uses, and schematics for the technologies. The following publication provides additional detail on the CORA model:

- "The Cost of Remedial Actions (CORA) Model: Overview and Applications," Richard K. Biggs, Kevin Klink, Jacqueline Cronca, submitted for proceedings of HAZMACON 89, Santa Clara, California, April 1989.

Information may be obtained through the following:



- The CORA Hotline - (703) 478-3566, to obtain the model and technical assistance, demonstrations, training seminars, and CORA costing services
- The RCRA/Superfund Hotline - (703) 920-9810 or (800) 424-9346, for program information.

COMPLIANCE WITH DOD DIRECTION ON CRITERIA VIII

12/4/92 Memo from Colin McMillen lists several "attributes":

the restoration costs can be costs of closure: p. 2.

1. Threatened or Endangered Species
2. Wetlands
3. Historical or Archeological Sites
4. Pollution Control
5. Hazardous Materials/Waste
6. Land Use and Airspace Implications
7. Programmed Environmental Costs/Cost Avoidances

There is apparently no guidance on how these attributes are considered. The 12/4 memo states that the status of the attributes should be discussed. It appears that the services are evaluating how continued and/or expanded military operations are influenced by these attributes.

- AIR FORCE ANALYSIS AND RECOMMENDATIONS (VOL. V)

Volume V summarizes the impacts of attributes 1, 2, 3 on future operations.

Pollution Control is not explicitly addressed. There is discussion of Air Quality in noting whether the base is located in an attainment area. The quality and quantity of Water supplies is also discussed.

Hazardous Materials/Waste are discussed by results of surveys on asbestos and radon, along with a discussion of future capacity for the disposal of solid waste. The presence of soil contamination and its impact on operations was evaluated.

Attributes 6 and 7 are not addressed. The 12/4 memo directs land value estimates to be adjusted due to contamination problems. It appears that this has not been done.

Volume V also rates the presence of "Prime and unique farmlands," and "Mineral and Energy Resources."

- AIR FORCE BASE QUESTIONNAIRES

The base-specific questionnaires provide details on the attributes summarized in Volume V. Questions on the attributes not discussed in Volume V. (6, 7) are additionally included. The focus on these questions on Attribute 6 is on how base activities interface with local land use or airspace constraints.

The only environmental costs (#7) discussed in the questionnaire are restoration costs. Questions under the title of "Environmental Cleanup/Compliance Costs" also ask about the status of permits and ground water contamination, but do not seek costs on

these activities. It is unclear how new environmental costs (e.g. for receiving bases) or cost avoidances (for closing bases) could be determined from this information.

Under Attributes 4 and 5, the questionnaires provide more details on the status of pollution control (wastewater treatment, drinking water treatment) and the presence of hazardous materials/waste.

RESTORATION COSTS

The 12/4 memo states that "environmental restoration costs at closing bases are not to be considered in the cost of closure calculations." The apparent rationale was noted by Chairman Courter during the 3/22 Environmental Hearing when he noted that bases that disregard environmental protection (thus requiring elevated cleanup costs) should not be rewarded by remaining open. Ms. Munsell of the Navy noted that cleanup costs are "a wash" if a base is closing or remaining open. While this could theoretically be true in rare circumstances, in most cases there will be additional incremental costs associated with the restoration of closing bases. At least three factors lead to these incremental costs:

1. As Commissioner Levitt noted on 3/22, distinct future uses of closing bases may lead to more stringent cleanup requirements. This has been supported by experiences at Norton AFB (San Bernardino, CA) and Hunter's Point Naval Annex (San Francisco, CA) where cleanup objectives are impacted by future use considerations. Incremental cleanup costs will be incurred for these bases that would not be incurred if the bases remain open. The current estimated cleanup at McClellan AFB is \$1.1 Billion (not \$1.1 Million as stated by Mr. Vest on 3/22) were this base to remain open. The Air Force has estimated that if the base closes, the cleanup costs could reach \$10 Billion due to the residential surroundings.

2. The Community Environmental Response and Facilitation Act (CERFA) requires that uncontaminated property at closing bases be identified to facilitate reuse. This results in incremental costs that are not incurred by non-closing bases.

3. The FY-92 Defense Authorization Act established deadlines for the completion of Remedial Investigation/Feasibility (RI/FS) work at Round I and Round II closing bases on the Superfund NPL. The impact of these mandated deadlines is that work must be accelerated, resulting in incremental short-term costs.

The 12/4 memo also notes that when environmental restoration is required, that this will be "a potential limitation on near-term community reuse of the installation." It would apparently be appropriate to consider this under Criteria VI (Economic Impact on Communities). The Air Force's Volume V report notes comparative cleanup durations in their Criteria VI summary.



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE



MEMORANDUM FOR BASE CLOSURE COMMISSION (Ms. Dierdre Nurre)

03 APR 1995

FROM: HQ USAF/RT

SUBJECT: Request for Information (AF/RT Tasker 320)

In response to your telephone request of April 3, 1995, the attached roster is provided. This roster was developed from the certified Air Force database, and lists each base, whether the base is in maintenance or nonattainment status for air quality, and if in nonattainment the pollutant for which it is in nonattainment and its severity.

I trust this responds to your need. Lt Col Bryan Echols, 697-6560, is my point of contact.

Jay D. Blume, Jr.
JAY D. BLUME, Jr.
Special Assistant to the Chief of Staff
for Realignment and Transition

*INSURE cc to Dierdre and all AF teams
+ X Service Teams*

*I marked most of the losers/
receivers of AIR or related
options for our & Dierdre Analysis*

*Note There is a 0900 Air Qual.
issue FRI Morn that Dierdre
has set up - AF team especially
Rick, FXC, MARK need to be there*

Base Name	MAINT	NON ATTAIN	Carbon Monoxide	Ozone	PM-10	Sulfur dioxide	TSP
Kirtland AFB	OK	Non-Attainment	Moderate				
Lackland AFB	OK	Non-Attainment					
Lambert Field ANG	OK	Non-Attainment					
Langley AFB	OK	Non-Attainment					
Loughlin AFB	OK	Non-Attainment					
Little Rock AFB	OK	Non-Attainment					
Los Angeles AFB	OK	Non-Attainment	Serious				
Luke AFB	OK	Non-Attainment	Moderate				
MacDill AFB	OK	Non-Attainment	Moderate				
Malmstrom AFB	OK	Non-Attainment	Moderate				
March AFB	OK	Non-Attainment	Moderate				
Martin State APT ANG	OK	Non-Attainment	Moderate				
Maxwell AFB	OK	Non-Attainment	Severe				
McClellan AFB	OK	Non-Attainment	Moderate				
McChord AFB	OK	Non-Attainment	Moderate				
McConnell AFB	OK	Non-Attainment	Moderate				
McGuire AFB	OK	Non-Attainment	Severe				
Minneapolis-St Paul JAP AR	OK	Non-Attainment	Moderate				
Minot AFB	OK	Non-Attainment					
Moody AFB	OK	Non-Attainment					
Mt Home AFB	OK	Non-Attainment					
NAS Willow Grove ARS	OK	Non-Attainment	Moderate				
Nellis AFB	OK	Non-Attainment	Moderate				
Niagara Falls JAP ARS	OK	Non-Attainment	Moderate				
O'Hare JAP, ARS	OK	Non-Attainment	Moderate				
Offutt AFB	OK	Non-Attainment	Severe				
Ontzuka AFB	OK	Non-Attainment	Moderate				
Otis ANG	OK	Non-Attainment	Moderate				
Patrick AFB	OK	Non-Attainment	Serious				
Peterson AFB	OK	Non-Attainment	Moderate				
Pope AFB	OK	Non-Attainment					
Portland JAP ANG	OK	Non-Attainment	Moderate				
Randolph AFB	OK	Non-Attainment	Moderate				
Reese AFB	OK	Non-Attainment					
Rickenbacker ANG	OK	Non-Attainment	Moderate				
Robins AFB	OK	Non-Attainment	Moderate				
Rome Lab	OK	Non-Attainment	Moderate				
Scott AFB	OK	Non-Attainment	Moderate				
Selfridge ANG	OK	Non-Attainment	Moderate				
Seymour Johnson AFB	OK	Non-Attainment					
Shaw AFB	OK	Non-Attainment					
Sheppard AFB	OK	Non-Attainment					
Stewart JAP ANG	OK	Non-Attainment					

Base Name	MAINT	NON-ATTAIN	Carbon Monoxide	Ozone	PM-10	Sulfur dioxide	TSP
Tinker AFB	OK	OK					
Travis AFB	OK	Non-Attainment	Moderate	Moderate			
Tucson IAP ANG	OK	Non-Attainment	Moderate		Moderate		
Tyndall AFB	OK	OK					
USAF	OK	Non-Attainment	Moderate				
Vance AFB	OK	OK					
Vandenberg AFB	OK	Non-Attainment		Moderate			
Westover ARB	Maintenance Area	Non-Attainment		Serious			
Whiteman AFB	OK	OK					
Wright-Patterson AFB	OK	Non-Attainment		Moderate			
Youngstown-Warren MPT A	OK	Non-Attainment		Marginal			

Printing Field

ENVIRONMENTAL RESTORATION COSTS IN CLOSURE DECISIONS

1. BACKGROUND - Environmental costs incurred by DOD are segregated into compliance costs and restoration costs. Environmental compliance costs are those costs that are associated with the day-to-day operations of a base. These costs can include: industrial wastewater treatment, disposal of hazardous waste generated in maintenance activities, disposal of dredge spoils, and air pollution control equipment. Compliance costs may be funded through the military construction budget, and the base's environmental compliance budget.

Restoration costs, on the other hand, are those incurred in the investigation and cleanup of contamination that has resulted from DOD's use of base property. Typical contamination problems include landfills, lagoons that were historically used in industrial wastewater treatment, and areas where chemicals were spilled or mismanaged. Since the majority of restoration work is currently in the investigation phase, most of the dollar figures cited for restoration costs are rough estimates. In order to accurately forecast restoration costs, it is necessary to know the type and extent of contamination, the cleanup standards that will be required (which are dependent on the future use of the property), and technologies to be used in cleanup. These details are subject to change as base-specific knowledge increases. Most, if not all, significant DOD installations that have ever handled any chemicals are engaged in some degree of environmental restoration. Restoration costs come out of DOD's Defense Environmental Restoration Account (DERA). For BRAC-88 and BRAC-91 closing bases, distinct accounts were established for restoration. DOD is planning on having legislation introduced this summer to roll the BRAC accounts back into DERA, so that all restoration will be funded out of one account.

2. DOD POLICY - DOD's December 4, 1992 Policy Guidance to the Services gives direction on considering environmental costs in recommending bases for closure and realignment. This guidance distinguishes between compliance costs and restoration costs. The Services are directed to consider compliance costs for closing, realigning, and receiving bases. DOD's guidance states that Services are not to consider restoration costs in the cost of closure. The rationale given for not considering restoration costs is that DOD is obligated to cleanup the bases regardless of whether bases close or remain open.

3. SERVICE IMPLEMENTATION - All the Services demonstrated their consideration of environmental compliance costs except the Air Force. The Commission staff have requested information from the Air Force on their consideration of these costs.

In the Services' consideration of the cost of closure, they followed DOD's guidance in that environmental restoration costs were not considered. A possible exception is the Army's decision on Fort Monroe, VA, where potentially high restoration costs may

have been used in the Army's recommendation to leave this base open. A letter has been sent to the Army requesting an explanation on Fort Monroe.

4. ANALYSIS - DOD direction on consideration of environmental compliance costs has resulted in useful information being considered in the base evaluation process.

It appears that there are flaws in the DOD direction on considering environmental restoration costs. While it is true that bases must be cleaned up regardless of whether they close or not, it doesn't necessarily follow that restoration costs at a given base will be the same regardless of whether it closes or remains open. An argument can be made for the value of considering "incremental" restoration costs for a closing base. These are the additional restoration costs that will be incurred as a result of the decision to close a base. There are several factors contributing to higher restoration costs at closing bases.

- In October, 1992, President Bush signed the Community Environmental Response Facilitation Act. This directs DOD to identify uncontaminated parcels of land on closing bases. This has resulted in closing bases conducting investigatory and documentation tasks that are not required in the investigation of non-closing bases.

- There is a need to accelerate investigation and cleanup work at closing bases. This is pushed by local community desire to reuse the base, and more formally, by statutory deadlines that were established in the FY-92 DOD Appropriations Act. The impact of acceleration has more than one component:

- The pace of work under existing schedules has to be speeded up by spending funds more immediately on contracts for investigation. It has been argued that this "only" results in greater short-term spending of funds that would be spent anyway in the long run. If this were the only impact, it would still be significant in its impact on the budget of DOD's restoration work nationwide. In addition, DOD's ability to efficiently oversee these expanded contracts has suffered in some cases, resulting in inefficiencies, and spending that would not otherwise occur.

- For many of its complex contamination problems (e.g. McClellan AFB), DOD is exploring new, innovative technologies in an attempt to find cost-efficient means of investigation and cleanup. This is essentially a research process, which requires time to test technologies to ensure they operate correctly. This technology development process is in conflict with the need for acceleration. If the overriding objective is to complete investigation and cleanup as soon as possible, more expensive, "off-the-shelf" technologies will be used.

- Another factor that could lead to incremental restoration costs is the potential for more stringent cleanup levels at closing bases to accommodate future civilian use of the property. Restoration costs at a closing base can be significantly greater than corresponding costs for a cleanup to accommodate continued military use. It can argued that the future users of closed bases should pay for cleanup that is necessary for their use. In some cases, this may be valid, in others the political reality will result in DOD cleaning up land it has contaminated in order to make reuse possible.

5. CONCLUSION - DOD's reasoning that environmental restoration costs will be the same regardless of a base's closure status appears to be based on an incomplete analysis of the factors involved. Legislative actions that have been taken since BRAC-91, and experience with the bases being closed under BRAC-88 and BRAC-91 point to the need for revised consideration of these costs.

It would be useful for the Commission to consider these incremental restoration costs in BRAC-93 decisions, if other criteria do not lead to clear-cut choices between comparable bases. However, it is unlikely that accurate data on these incremental costs can be collected in time for use in this year's deliberations.

It is recommended that incremental environmental restoration costs be considered in the BRAC-95 analysis. In most cases it will be very challenging to quantify these costs in a consistent manner. If incremental restoration costs are to be considered, DOD will need to lay out very specific guidelines for how future uses can be considered, and what should be considered in estimating these costs.

ENVIRONMENTAL ISSUES FOR CHAPTER 4 OF BRAC-93 REPORT

1. CLEANUP COSTS

DOD's guidance to the Services provides direction on the use of environmental costs in the BRAC process. This guidance states that the Services are not to consider environmental restoration (cleanup) costs in the cost of closure, since DOD is obligated to clean up bases regardless of whether they close or remain open. While it is true that all bases will be cleaned up, it doesn't follow that the restoration costs at a given base will remain the same if that base closes. Subsequent to the BRAC-91 Commission, there have been new laws passed, intended to facilitate reuse of closing bases, that impose unique environmental requirements on closing bases. These laws require the acceleration of investigatory work, and documentation on the presence of uncontaminated land at closing bases. As a result of these requirements, restoration costs can be incurred at closing bases that are not incurred at active bases. Additionally, it is possible that a given base's cleanup may need to be more extensive if that base closes, given possible changes in land uses. This can result in significant increased cleanup costs at closing bases. Because of the potential for increased environmental restoration costs at closing bases, it is recommended that incremental environmental restoration costs at closing bases be considered in the BRAC-95 process.

2. NEED FOR CONSISTENT ENVIRONMENTAL EVALUATIONS

DOD provided general guidance for considering environmental impacts in the BRAC process. Implementation of this guidance varied widely between Services. These inconsistencies include differences in the perspectives taken by the Services. One Service looked at how environmental issues may impact BRAC actions, another addressed the impact of BRAC actions on the environment, and a third examined the impact of environmental attributes on baseline military operations. Additionally, environmental impacts were evaluated at varying stages in the Services' recommendation process. One Service compiled upfront baseline surveys and did not document the environmental impacts as a result of specific recommended actions. Others did not consider the environment until after recommendations were made, and only analyzed environmental impacts for the recommended actions. Further, when specific guidance was provided by DOD, the Services did not consistently follow the guidance. For example, DOD directed the Services to estimate environmental compliance costs in return on investment calculations, but two Services did not follow this guidance. It is recommended that DOD provide more detailed guidance on environmental analysis to the Services early in the BRAC-95 process, and provide direction to the Services throughout the analyses to ensure a more consistent approach to the evaluation of environmental impacts.

June 4, 1993

Bob - Based on Matt's comments on the "Cleanup Costs" environmental issue for chapter 4 of the BRAC-93 report, it's not clear to me how this issue should be revised. Perhaps you can explain his perspective to me, or maybe I need to meet with Matt to explain my point. - John

1. "Maybe should be given - but not as part of a formal COBRA"

I don't know of a vehicle (other than COBRA) to consider increased closure costs. The point I'm trying to make is that DOD's guidance ignores costs that are incurred when bases close. By not considering these costs, DOD's "cost to close" estimates are unrealistically low. If we recognize that it costs more to clean up a closing base than it costs to clean up the same base if it remains open (my assertion), these incremental costs will be factored into COBRA.

2. "Environmental cleanup does impact reuse and therefore economic impact. Should be considered only in that light."

This seems to raise a different issue that is not directly related to the magnitude of cleanup costs. I agree that when a base is very contaminated, reuse will be impacted and there can be an economic impact on the local communities. However, it is my understanding that we currently look at economic impacts using a worst-case scenario; by assuming there is no reuse and all base employees become unemployed. Therefore, it appears that we would need to use a fundamentally different approach to evaluating economic impacts in order to take into account the impact of contamination on reuse. It seems that this is more than an environmental issue, and would require a discussion that is much longer than what we're doing for Chapter 4.

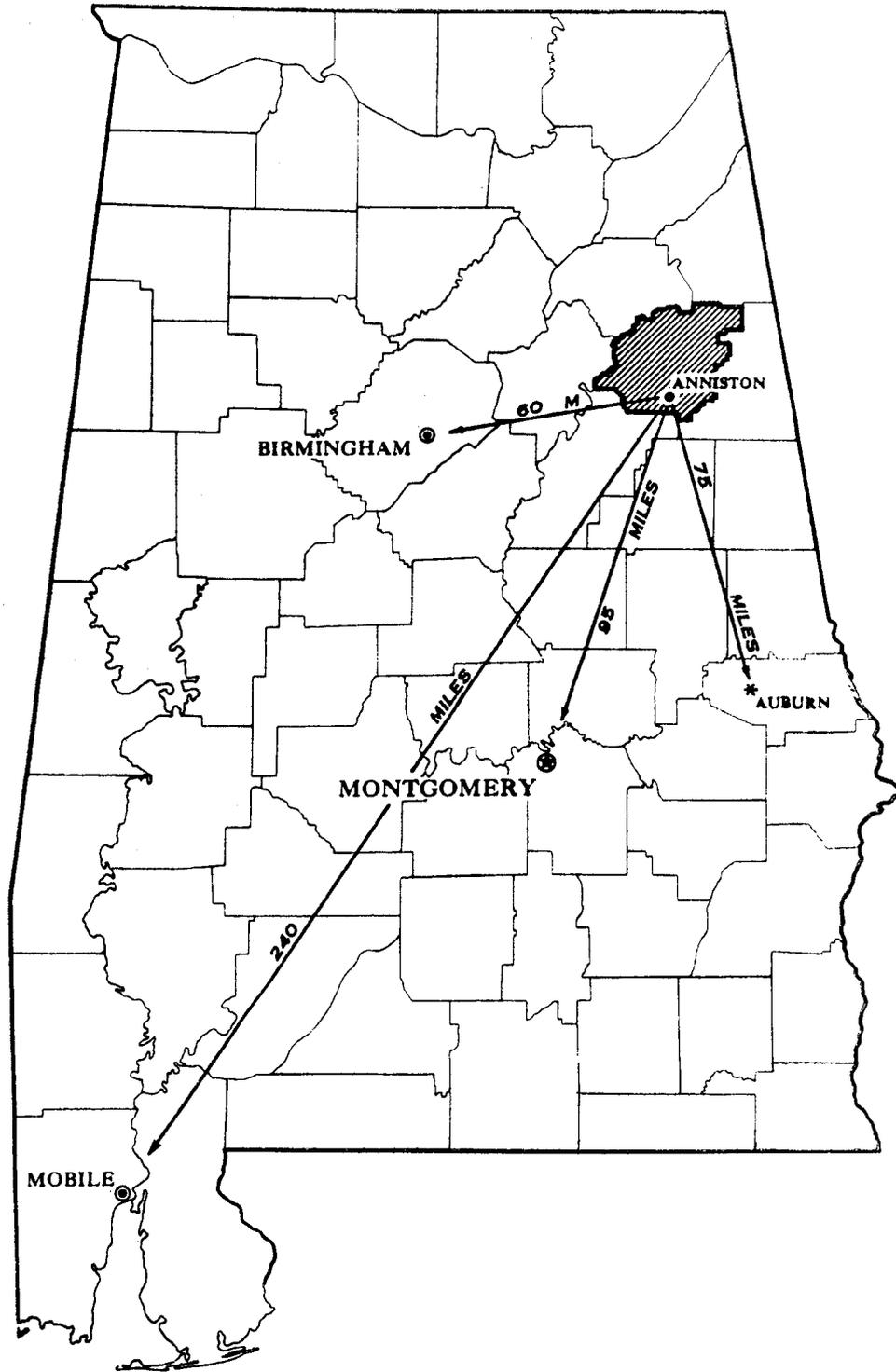
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SOIL SURVEY

Calhoun County Alabama



UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
In cooperation with
ALABAMA DEPARTMENT OF AGRICULTURE AND INDUSTRIES
ALABAMA AGRICULTURAL EXPERIMENT STATION



* State Agricultural Experiment Station

Location of Calhoun County in Alabama.

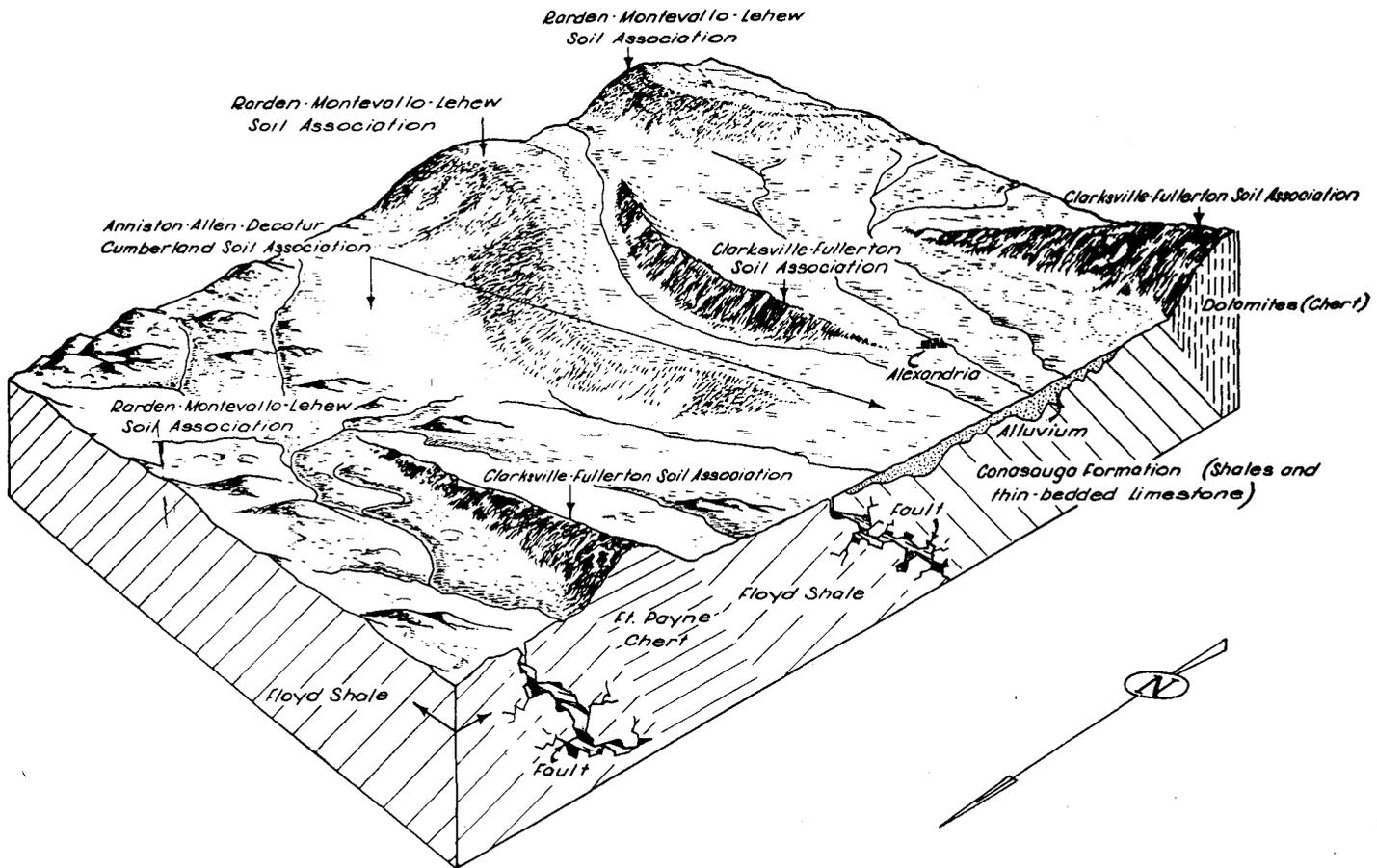


Figure 2.—Some of the general soil areas, or soil associations, in relation to topographic position and parent material.

General Soil Area 2

General soil area 2 consists of deep, well-drained, level to moderately steep soils in valleys underlain by limestone and shale. The dominant soils are the Anniston, Allen, Decatur, and Cumberland. This soil area is in the Alexandria and Choccolocco Valleys near Piedmont, in two small places in the southwestern part of the county, and in one place in the northern part. It makes up about 25 percent of the county. Most of the soils are gravelly loam, loam, silt loam, and silty clay loam, but some are stony loam.

The Anniston and Allen soils make up about 26 percent of the general soil area; the Dewey, about 7 percent; the Decatur and Cumberland, about 26 percent; and all minor soils, about 41 percent.

The Anniston and Allen soils have developed from old local alluvium that washed from sandstone and shale. They occur on the foot slopes of Choccolocco Mountain and other mountains. Their subsoils are red to dark-red fine sandy clay to clay loam. The Decatur and Cumberland soils have developed in thick beds of old general alluvium or in the residuum from limestone. Their subsoils are dark-red silty clay or clay.

The minor soils are the well drained Dewey and Etowah, the moderately well drained Captina, the somewhat poorly drained Taft, and the poorly drained Robertsville. These soils developed on uplands or stream

terraces. The other minor soils are the well drained Huntington, local alluvium phase, the moderately well drained Lindside and Philo, and the poorly drained Melvin.

Most of the farms in this general soil area are small, well managed, and productive and are owned by full-time operators. They are mainly of the general type, but a few are dairy and beef-cattle farms. Cotton and corn are the main crops (fig. 3); vegetables are grown for home use.

About 65 percent of the general soil area is in capability classes I, II, and III. The rest is in classes IV and VII. Most of the old iron mines in Calhoun County are in this general soil area.

General Soil Area 3

General soil area 3 consists of well drained to moderately well drained, stony or cherty soils on ridgetops and steep slopes and in local alluvium on foot slopes or in draws. The dominant soils are the Clarksville and Fullerton. This soil area occurs in the southwestern part of the county. Large areas are in the Anniston Ordnance Depot and in the vicinity of Duke School. About 28 percent of the county is in this general soil area. Most of the soils are stony loam and cherty silt loam, but some are silt loam and gravelly fine sandy loam.

The Clarksville-Fullerton stony loams make up about

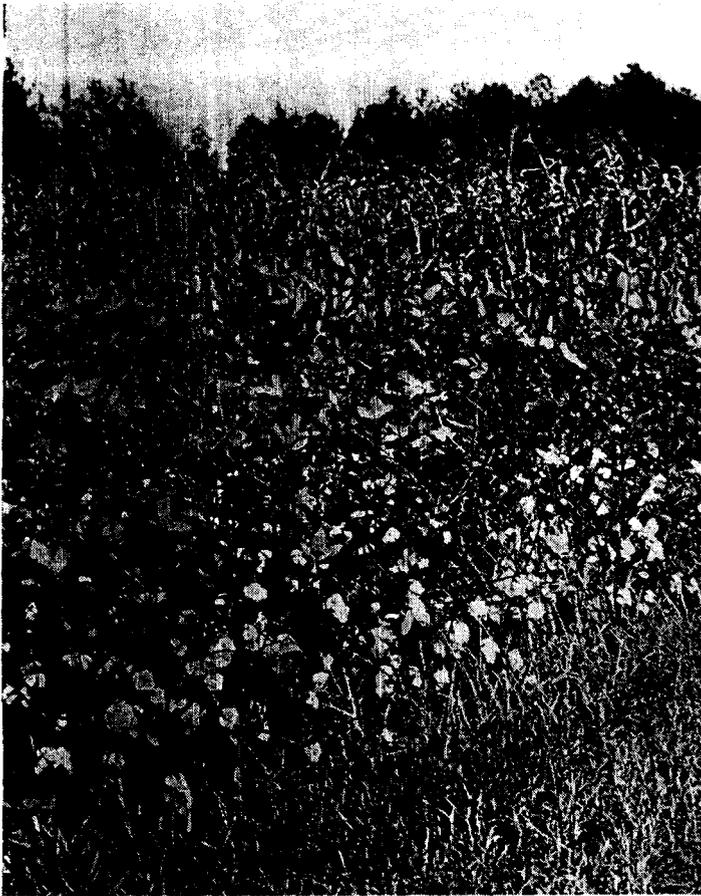


Figure 3.—Cotton and corn growing on Decatur and Cumberland loams, 0 to 2 percent slopes. The yield of lint is estimated to be 550 pounds per acre.

50 percent of this general soil area; Fullerton soils, 15 percent; Clarksville, about 13 percent; Lobelville, 1 percent; and the Landisburg and Lee soils together, about 21 percent.

The Clarksville and Fullerton undifferentiated soils have developed from the residuum of cherty limestone. The Clarksville soils have a light yellowish-brown to strong-brown, faintly mottled cherty silty clay loam subsoil. The Fullerton have a red to yellowish-red cherty silty clay loam to silty clay subsoil.

The minor soils are the moderately well drained Landisburg, which occupy foot slopes between the uplands and recently deposited alluvium, the somewhat poorly drained Lobelville, and the poorly drained Lee soils. The latter two soils have developed in narrow valleys from recent general alluvium and local alluvium.

In this general soil area, most of the farms are small, moderately well managed, crop-and-livestock farms. About half of the farms are operated full time and the rest part time. Cotton and corn are the main row crops; vegetables are grown for home use.

More than 60 percent of the area is in capability classes VI and VII. Most of the chert pits and bauxite mines are in this general soil area. Paper companies have purchased a large acreage for conversion to woodland. The U.S. Government owns several square miles of land.

General Soil Area 4

General soil area 4 consists of moderately deep or shallow soils on ridgetops and steep slopes and in local alluvium in draws. The major soils are the Rarden, Montevallo, and Lehew. This general soil area makes up about 17 percent of the county and is mainly in the northern and western parts. Most of the soils are silt loam, but some are shaly silt loam and gravelly loam or fine sandy loam.

The Rarden soils make up about 40 percent of the general soil area; Montevallo, 28 percent; Lehew-Montevallo complexes, 10 percent; and the Camp, Cane, Locust, Enders, Atkins, and Stendal soils together, about 22 percent.

The Rarden, Montevallo, and Lehew soils have developed from the residuum of shale and fine-grained, platy sandstone or limestone. The Rarden soils are moderately well drained, and the Montevallo and Lehew are well drained. The Rarden soils have a yellowish-red silty clay or clay subsoil mottled with strong brown. The Montevallo have a yellowish-brown shaly silt loam subsoil. The Lehew soils are weak-red shaly loam throughout the solum.

The minor soils are the well drained Camp and Enders, the moderately well drained Cane and Locust, and the poorly drained Atkins. Of these, the Enders are on uplands; the rest are in narrow valleys and have developed from local and general alluvium.

Most of the farms in this general soil area are fairly large, are somewhat poorly managed, and have low productivity. They are generally owned by part-time operators. Cotton or corn is grown in small, scattered fields. A few beef-cattle farms are in the area.

About 50 percent of the area is in capability classes III and IV; the rest is in classes VI and VII. Most of the acreage is idle or in second-growth pine.

General Soil Area 5

General soil area 5 consists of well-drained soils on stream terraces underlain by sand, gravel, and clay. The major soils are the Sequatchie, Holston, and Nolichucky. This general soil area makes up about 2 percent of the county and is mainly along the Coosa River in the southwestern part. The broad, gently sloping stream terraces on which it occurs are dissected by steep-walled drains and valleys. Most of the soils are fine sandy loam; some are gravelly.

The Sequatchie, Holston, and Nolichucky soils are well drained, and they have developed from thick beds of general alluvium that has washed from sandstone and shale. The Sequatchie soils occupy the lower stream terraces. They have a brown to reddish-brown fine sandy clay loam subsoil. The Holston soils occupy higher terraces. They have a strong-brown to yellowish-brown fine sandy clay loam subsoil. The Nolichucky soils are on the stronger slopes. Their subsoil is red fine sandy clay loam.

The minor soils are the Montevallo, the well drained Pope, the moderately well drained Philo, and the poorly drained Atkins. The Montevallo are on escarpments between the stream terraces and the valleys. The others are in narrow valleys and have developed from alluvium.

locally grown crops, their suitability is somewhat limited by the fragipan. They are fairly easily conserved. The natural vegetation is pine, oak, and hickory.

A typical profile of a Captina soil is described in the mapping unit Captina silt loam, 2 to 6 percent slopes.

Captina silt loam, 0 to 6 percent slopes (CcB).—This soil has a thicker surface soil, a higher rate of infiltration, and slower runoff than Captina silt loam, 2 to 6 percent slopes, eroded.

The soil has good tilth and a thick root zone. It responds to management and can be used moderately intensively. Runoff is a hazard on the more sloping areas.

Most of the acreage has been used, chiefly for cotton and corn. Now, about 60 percent is in row crops; the rest consists of wooded, pastured, and idle areas. Capability unit IIe-5.

Captina silt loam, 2 to 6 percent slopes, eroded (CcB2).—This moderately deep soil is on stream terraces. A fragipan layer interferes with drainage.

A profile description of this soil from a moist, cultivated site located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 15 S., R. 7 E., 1.8 miles south of Alexandria, is as follows:

- A_p 0 to 6 inches, dark-brown to very dark grayish-brown (10YR 4/3-3/2) silt loam; weak, fine, crumb structure; friable; small concretions present; strongly acid; abrupt, smooth boundary; layer ranges from 2 to 9 inches in thickness.
- B₂₁ 6 to 15 inches, yellowish-brown (10YR 5/8) to strong-brown (7.5YR 5/6) silty clay loam; weak, fine, and medium, subangular blocky structure; friable; few small concretions; strongly acid; gradual, diffuse boundary; layer ranges from 8 to 11 inches in thickness.
- B₂₂ 15 to 21 inches, strong-brown (7.5YR 5/6) silty clay loam; few, medium, faint mottles of pale brown (10YR 6/3) in the lower part; weak, medium, subangular blocky structure; friable; small concretions; strongly acid; gradual, wavy boundary; layer ranges from 4 to 14 inches in thickness.
- B_{3m} 21 to 37 inches, strong-brown (7.5YR 5/8), light silty clay loam; common, medium, distinct mottles of light brownish gray and very dark grayish brown; moderate, medium, subangular blocky and platy structure; compact in place but friable when dug out; numerous concretions; strongly acid; gradual, smooth boundary; layer ranges from 4 to 20 inches in thickness.
- C 37 to 42 inches, mottled brown, red, and brownish-yellow silt, clay, and sand; stratified; massive; friable; strongly acid.

The subsoil ranges from yellowish brown to yellowish red. The fragipan ranges in thickness from 4 to 20 inches and in compactness from weak to strong.

Included with this soil are severely eroded places in which the plow layer is brown to reddish-brown silty clay loam.

This soil has medium runoff, a moderate capacity for available moisture, and slow permeability. The root zone is fairly thick; natural fertility and the supply of organic matter are low. Except in severely eroded areas, the plow layer has good tilth. The soil responds to management, and it is suited to a fairly wide range of crops. It can be used moderately intensively, but runoff is a hazard.

Most of the acreage has been used, chiefly for cotton and corn. Now, about 73 percent is cropped; the rest consists of wooded, pastured, and idle areas. Capability unit IIe-5.

Clarksville Series

The Clarksville series consists of strongly acid, well-drained soils that have developed in the residuum of cherty limestone. These soils generally occur in large areas on the tops of fairly wide ridges. Two extensive areas of the Clarksville soils are near Williams School.

The surface soil is dark-brown to dark grayish-brown or very dark grayish-brown cherty silt loam or stony loam. The subsoil is yellowish-brown to light yellowish-brown, faintly mottled, cherty silty clay loam, or pale-brown to light yellowish-brown, stony, light silty clay loam. Pieces of chert and limestone, 3 inches to 8 inches or more in diameter, are on the surface and in the profile.

Clarksville soils are associated with the Fullerton, Dewey, and Decatur soils. They have thinner sola, are less red, and normally are more cherty than the associated soils.

Areas on slopes in the range of 2 to 10 percent are fairly easily conserved and suited to a wide range of crops. Those on slopes stronger than 10 percent should be in forests or other permanent vegetation. A large percentage of the acreage is in forest consisting of post, white, and blackjack oaks, hickory, and shortleaf and loblolly pines.

A typical profile of Clarksville cherty silt loam is given in the mapping unit Clarksville cherty silt loam, 6 to 10 percent slopes. That for Clarksville stony loam is given in the mapping unit Clarksville-Fullerton stony loams, 10 to 15 percent slopes.

Clarksville cherty silt loam, 2 to 6 percent slopes (CkB).—This soil has milder slopes, slower runoff, and a thicker solum than Clarksville cherty silt loam, 6 to 10 percent slopes.

Tilth is fairly good. The root zone is thick. The soil responds to management and can be used fairly intensively. Runoff is a hazard.

Most of the acreage has been used, chiefly for cotton and corn. At present, more than 45 percent of the acreage is in forest, and less than 30 percent is in crops. The rest is pastured, idle, and in urban developments. Capability unit IIe-3.

Clarksville cherty silt loam, 6 to 10 percent slopes (CkC).—This well-drained, cherty soil has developed in residuum derived from cherty limestone.

A profile from a moist, idle site located in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 34, T. 12 S., R. 9 E., 1.7 miles east of the Shady Grove Church, is described as follows:

- A_p 0 to 5 inches, dark grayish-brown (2.5Y 4/2) to dark-brown (10YR 4/3) cherty silt loam; weak, fine, granular structure; very friable; fine roots abundant; strongly acid; gradual, smooth boundary; layer ranges from 2 to 7 inches in thickness.
- B₁ 5 to 13 inches, yellowish-brown (10YR 5/4) to light yellowish-brown (10YR 6/4), cherty, light silty clay loam; weak, fine, subangular blocky structure; few clay skins; friable; roots plentiful; strongly acid; gradual, wavy boundary; layer ranges from 4 to 10 inches in thickness.
- B₂ 13 to 25 inches, yellowish-brown (10YR 5/6) to strong-brown (7.5YR 5/6) cherty silty clay loam; few, medium, faint mottles of pale brown and light brownish gray; weak to moderate, medium, subangular blocky structure; clay skins or films over peds; friable; strongly acid; gradual, wavy boundary; layer ranges from 8 to 12 inches in thickness.
- B₃ 25 to 30 inches, strong-brown (7.5YR 5/6) cherty silty clay loam; common, distinct, medium mottles of

light brownish gray and light red; weak to moderate, medium, subangular blocky structure; few clay films; friable; strongly acid; abrupt, wavy boundary; layer is 6 to 7 inches thick.

C 30 to 50 inches +, mottled white (5Y 8/2) or light-gray (2.5Y 7/2), strong-brown (7.5YR 5/6), and yellowish-red (5YR 5/6) cherty limestone; clay material between fragments of chert; very firm in place; strongly acid.

The surface soil is darker in wooded areas, and it is lighter in cultivated fields. The size and amount of chert are variable. The subsoil ranges from light olive brown or light yellowish brown to strong brown. Depth to the C horizon ranges from 20 to 36 inches.

Included with this soil are a few small areas almost free of chert. Some severely eroded places are also included. In these the plow layer is a brown to yellowish-brown cherty silty clay loam. There are also a few shallow gullies.

This soil has medium runoff and infiltration. Permeability is rapid, and the capacity for available moisture is moderate to low. The root zone is thick. Because of chert, the soil has only fair tilth. The soil is low in natural fertility and organic matter. It responds to management, especially to fertilization and additions of organic matter. It can be used fairly intensively, and it is suitable for a fairly wide range of crops. Early spring crops or deep-rooted plants are best suited to this soil.

Most of the acreage has been used, chiefly for cotton and corn. Now, only about 15 percent of the acreage is in crops, and about 60 percent is in forest. The rest is pastured, idle, and in urban developments. Capability unit IIIe-3.

Clarksville cherty silt loam, 6 to 15 percent slopes, eroded (CkC2).—This soil differs from Clarksville cherty silt loam, 6 to 10 percent slopes, in having more runoff and a thinner solum. Most of the original surface soil has been lost through erosion. The plow layer is now a brown to yellowish-brown, heavy cherty silt loam, 3 to 6 inches thick. There are some shallow gullies and a few deep ones.

This soil has poor tilth, a thin root zone, and a low capacity for available moisture. It is not suited to cultivation; the hazard of erosion is great.

Most of the acreage has been used, mainly for cotton, corn, and hay. About 52 percent of the acreage is cropped, pastured, and idle. The rest is in forest, a use for which the soil is best suited. Capability unit VIe-1.

Clarksville cherty silt loam, 10 to 15 percent slopes (CkD).—This soil has stronger slopes, more runoff, and a thinner solum than Clarksville cherty silt loam, 6 to 10 percent slopes. It has poor tilth and a low capacity for available moisture. The root zone is thin, and tillage with machinery is difficult. The soil is not suited to regular cultivation, because the hazard of erosion is great.

About 7 percent of the acreage is cultivated. The rest is wooded, idle, pastured, and in urban developments. Most of the acreage is in woodland, a use for which this soil is best suited. Capability unit IVe-2.

Clarksville cherty silt loam, 15 to 25 percent slopes (CkE).—Stronger slopes, more runoff, and a thinner solum distinguish this soil from Clarksville cherty silt loam, 6

to 10 percent slopes. Some of the original surface soil has been lost through erosion. The plow layer is now a brown to yellowish-brown, heavy cherty silt loam. Shallow gullies are common.

The soil has poor tilth, a thin root zone, and a low capacity for available moisture. These characteristics and the hazard of erosion make this soil unsuited to cultivation.

Most of the acreage has been used, mainly for cotton, corn, and hay. About 35 percent is now cropped, pastured, or idle. The rest is in forest, a use for which the soil is best suited. Capability unit VIIe-1.

Clarksville-Fullerton stony loams, 6 to 10 percent slopes (CIC).—These two soils occur in an intricate pattern and could not be mapped separately. They have milder slopes, slower runoff, and a thicker solum than Clarksville-Fullerton stony loams, 10 to 15 percent slopes. In cultivated areas, the A_p horizon is a mixture of the A₁ and A₂ horizons, and the color is brown to dark brown.

In this mapping unit, tilth is poor and the capacity for available moisture is moderate. The soils are not suited to frequent cultivation. If stones are removed from the surface and management is good, the soils will produce moderate yields of hay or forage.

A few of the less stony areas are in crops or pasture; nearly all the acreage is in forest. Capability unit IVe-4.

Clarksville-Fullerton stony loams, 10 to 15 percent slopes (CID).—The soils in this mapping unit have developed on uplands in the residuum of cherty limestone. Stones, shallowness, and a high erosion hazard make these soils unsuited to row crops.

A profile of Clarksville stony loam in a moist, wooded site located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T. 13 S., R. 8 E., is described as follows:

- | | |
|----------------------------------|---|
| A ₁ | 0 to 1 inch, very dark grayish-brown (2.5Y 3/2) stony loam; weak, fine, granular structure; very friable; fine roots abundant; high in organic matter; medium acid; gradual, wavy boundary; layer ranges from 0 to 2 inches in thickness. |
| A ₂ | 1 to 5 inches, very dark grayish-brown (2.5Y 3/2) stony loam; weak, fine, granular structure; very friable; fine roots abundant; medium to strongly acid; gradual, wavy boundary; layer ranges from 2 to 6 inches in thickness. |
| A ₃ or B ₁ | 5 to 8 inches, light brownish-gray (2.5Y 6/2) to grayish-brown (2.5Y 5/2) stony loam; weak, fine, granular to weak, fine, subangular blocky structure; friable; fine roots plentiful; strongly acid to medium acid; gradual, wavy boundary; layer ranges from 1 to 6 inches in thickness. |
| B ₂ | 8 to 24 inches, light yellowish-brown (2.5Y 6/4) to pale-brown (10YR 6/3), stony, light silty clay loam; weak, fine to medium, subangular blocky structure; friable; few clay films; medium acid; abrupt, wavy boundary; layer ranges from 12 to 20 inches in thickness. |
| C | 24 inches +, mottled yellowish-brown (10YR 5/4-5/6), very pale brown (10YR 7/3), and strong-brown (7.5YR 5/6), partly weathered chert; firm to very firm in place; layer ranges from 1 foot to more than 50 feet in thickness. |

Depth to bedrock or to the C layer ranges from 15 to 34 inches. Veins or layers of hard chert are in the bedrock. In cultivated areas, the A₁ horizon is lacking and the surface is lighter colored.

A profile of Fullerton stony loam in a moist, wooded site located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 13 S., R. 8 E.,

1 mile southeast of Williams School, is described as follows:

- A₁ 0 to 6 inches, very dark grayish-brown (10YR 3/2) stony loam; weak, fine, granular structure; very friable; fine roots abundant; strongly acid; gradual, wavy boundary; layer ranges from 3 to 8 inches in thickness.
- A₂ 6 to 8 inches, strong-brown (7.5YR 5/6) stony loam; weak, fine, granular structure; friable; fine roots abundant; strongly acid; gradual, wavy boundary; layer ranges from 3 to 6 inches in thickness.
- B₁ 8 to 11 inches, red (2.5YR 4/6-5/6), stony silty clay loam; weak, fine, subangular blocky structure; friable; strongly acid; gradual, wavy boundary; layer ranges from 3 to 6 inches in thickness.
- B₂ 11 to 19 inches, red (2.5YR 4/6), stony silty clay; weak, medium, angular blocky and subangular blocky structure; friable to firm; strongly acid; diffuse, wavy boundary; layer ranges from 7 to 20 inches in thickness.
- C 19 to 42 inches +, red (2.5YR 4/6) chert, clay, and silt; moderate, medium, angular blocky or massive structure; firm to very firm in place but friable when dug out; strongly acid.

The surface layer varies in thickness, and in the cultivated areas, it is lighter colored. The color of the subsoil ranges from red to strong brown, and the texture grades to a silty clay loam. The profile ranges from 16 to 40 inches in thickness. Stones vary in size and abundance from place to place.

In this mapping unit, runoff and infiltration are medium. Permeability is rapid, and the capacity for available moisture is moderate. These soils have poor tilth because of the stony surface soils, and they are low in natural fertility. They respond to management, especially to fertilization, and are suited to a fairly wide range of crops. Pasture or meadow should be kept in thick, vigorous sod. The erosion hazard is high.

About 93 percent of the acreage is in forest, the use for which these soils are best suited. Capability unit VIe-2.

Clarksville-Fullerton stony loams, 15 to 40 percent slopes (C1f).—Stronger slopes, more runoff, and a thinner solum distinguish this mapping unit from Clarksville-Fullerton stony loams, 10 to 15 percent slopes. In cultivated areas, the plow layer is a mixture of the A₁ and A₂ horizons, and the color is brown to dark brown.

The soils in this mapping unit have poor tilth. Their capacity for available moisture is low, and they are not suitable for cultivation.

About 99 percent of the acreage is in forest. Capability unit VIIe-1.

Conasauga Series

The Conasauga series consists of moderately well drained soils that have developed in the residuum of interbedded limestone, calcareous shale, and fine-grained sandy shale. The surface soil is strongly acid, dark-brown to pale-brown silt loam. The subsoil is mildly alkaline, yellowish-brown, plastic silty clay.

Conasauga soils are associated with the Rarden and Montevallo soils on uplands. They are not so red or so strongly acid as the Rarden soils. They are deeper, less well drained, and not so strongly acid as the Montevallo soils.

Conasauga soils are among the least extensive in the county; the largest area of them is in the north-central

part. They are moderately deep but low in fertility and in organic matter. They are only fairly well suited to cultivation because permeability is slow, tilth fair, and the range of crops narrow. More than half the acreage is in shortleaf and loblolly pines, white, post, and black jack oaks, and hickory and sweetgum.

A typical profile of a Conasauga soil is described in the mapping unit Conasauga silt loam, 2 to 6 percent slopes eroded.

Conasauga silt loam, 2 to 6 percent slopes, eroded (CnB2).—This moderately well drained upland soil has heavy clay subsoil, which retards the movement of air and water and the growth of roots.

A profile from a moist, cultivated site in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 12 S., R. 9 E., 0.4 mile northwest of Shad Grove Church, is described as follows:

- A_p 0 to 3 inches, dark-brown (10YR 4/3) silty loam; weak fine, crumb structure; friable; roots abundant; strongly acid; clear, wavy boundary; layer ranges from 2 to 4 inches in thickness.
- A₂ 3 to 5 inches, pale-brown (10YR 6/3) silt loam; weak, fine crumb structure; friable; roots abundant; strongly acid; clear, wavy boundary; layer ranges from 0 to 4 inches in thickness.
- B₁ 5 to 7 inches, yellowish-brown (10YR 5/8) silty clay common, medium, distinct mottles of yellowish red moderate, medium, subangular blocky structure; firm to plastic and sticky; few roots; slightly acid; gradual wavy boundary; layer ranges from 1 to 4 inches in thickness.
- B₂ 7 to 32 inches, yellowish-brown (10YR 5/6) silty clay massive or moderate, coarse, subangular and angular blocky structure; very firm to plastic; few roots and clay skins; mildly alkaline; clear, wavy boundary layer ranges from 17 to 25 inches in thickness.
- C 32 to 40 inches, mottled yellowish-brown (10YR 5/6) white (2.5Y 8/2), and light brownish-gray (2.5Y 6/2) silty clay loam; massive; firm; moderately alkaline gradual, wavy boundary; layer ranges from 6 to 18 inches in thickness.
- D_r 40 to 50 inches +, dark-gray to dark-brown calcareous shale and limestone.

The surface soil ranges from dark brown or very dark brown to pale brown in color. The subsoil ranges from yellowish brown and strong brown to light olive brown. In places it is mottled yellowish red, gray, or brown, and the pH grades to strongly acid. The C layer in some locations is acid.

Included with this soil are some areas having a gravelly silt loam to fine sandy loam surface soil. In some severely eroded spots, the plow layer is yellowish-brown or pale-brown silty clay loam. Some areas have a few shallow gullies. Small, scattered areas with slopes of more than 6 percent are also included.

This soil has slow permeability and slow to very slow infiltration. Runoff is medium. The capacity for available moisture is low. Except in severely eroded areas, tilth is fair. The response to management is fair to poor, and the risk of erosion is high. Firm clay in the subsoil limits productivity and the crops that can be grown. As a whole, the soil is only fairly well suited to cultivation.

Most of the acreage has been used, mainly for cotton, corn, and small grains or hay. About 22 percent of the acreage is now in crops; the rest is forested or idle. Capability unit IIIe-6.

Decatur Series

The Decatur series consists of strongly acid, well-drained soils that have developed on uplands from limestone residuum and old valley fill of similar origin. The surface soil is dark reddish-brown loam and the subsoil, a dark-red silty clay. The Decatur soils occur in the valleys of Alexandria and Choccolocco Creeks, and in the area east of Piedmont.

In many places the Decatur soils are associated with the Dewey, Fullerton, and Clarksville soils. The Decatur subsoil is darker red and finer textured than that of the Dewey, Fullerton, and Clarksville soils. In addition, it lacks the chert that is characteristic in the Fullerton and the Clarksville soils.

Decatur soils are suited to a wide range of crops, and about 48 percent of the acreage is cultivated. The natural vegetation is mainly pine, oak, and hickory.

In Calhoun County the Decatur soils are mapped with the Cumberland soils as undifferentiated units. The soils of both series are well drained and differ chiefly in that the Decatur soils have developed in limestone residuum on uplands, whereas, the Cumberland soils have developed in old general alluvium (washed from soils underlain by limestone) on stream terraces. Typical profiles for both of these soils are described in the mapping unit Decatur and Cumberland loams, 2 to 6 percent slopes, eroded.

Decatur and Cumberland clay loams, 2 to 6 percent slopes, severely eroded (DcB3).—This mapping unit has slower infiltration, poorer tilth, and more runoff than Decatur and Cumberland loams, 2 to 6 percent slopes, eroded. Erosion has removed all or nearly all of the original dark reddish-brown surface soil. The 4- to 6-inch plow layer is now reddish-brown clay loam. It forms clods if tilled when too wet. Infiltration is slow, and there is risk of erosion. A few shallow gullies have formed.

Most of the acreage has been used, mainly for cotton and corn. About 66 percent of the acreage is now in crops; the rest is forested, pastured, or idle. Capability unit IIIe-1.

Decatur and Cumberland clay loams, 6 to 10 percent slopes, severely eroded (DcC3).—This mapping unit differs from Decatur and Cumberland loams, 2 to 6 percent slopes, eroded, in having more runoff and a reddish-brown clay loam surface soil. Erosion has removed all or nearly all of the original dark reddish-brown silt loam surface soil. The surface soil forms clods on drying. Infiltration is slow, and there is risk of erosion. A few shallow gullies have formed.

Most of the acreage has been used, chiefly for cotton and corn. About 27 percent of the acreage is cultivated; the rest is wooded, pastured, or idle. Capability unit IIIe-1.

Decatur and Cumberland clay loams, 10 to 25 percent slopes, severely eroded (DcD3).—This mapping unit differs from Decatur and Cumberland loams, 2 to 6 percent slopes, eroded, in having stronger slopes, more runoff, a thinner solum, and a clay loam plow layer. Erosion has removed all the original dark reddish-brown silt loam surface soil. There are many shallow gullies and a few deep ones. The reddish-brown clayey plow layer is pre-

dominantly subsoil material. This unit has poor tilth because it commonly forms clods when drying. The capacity for available moisture is low to moderate. Infiltration is slow, and there is great risk of erosion. Most of the acreage is too poor to allow frequent cultivation.

Much of the acreage has been used, mainly for cotton, corn, and hay. About 8 percent of the acreage is in crops; the rest is forested, pastured, or idle. Capability unit IVe-1.

Decatur and Cumberland loams, 0 to 2 percent slopes (DdA).—This mapping unit differs from Decatur and Cumberland loams, 2 to 6 percent slopes, eroded, in having milder slopes, slower runoff, and a thicker surface soil. The surface soil is 5 to 10 inches thick, and it is fairly easily tilled. Erosion is not a hazard. These soils have good tilth. They have a thick root zone and respond to management. They can be used intensively.

Most of the acreage has been used, chiefly for cotton, corn, and market vegetables. About 52 percent of the acreage is in crops; the rest is forested, pastured, and idle. Capability unit I-1.

Decatur and Cumberland loams, 2 to 6 percent slopes, eroded (DdB2).—This mapping unit consists of one or both of these deep, well-drained, productive soils.

A profile description of Decatur loam in a moist, wooded site in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T. 13 S., R. 9 E., 1.2 miles north of Merrellton, Ala., is as follows:

- A₁ 0 to 3 inches, dark reddish-brown (5YR 3/3) loam; weak, fine, crumb structure; loose; first inch stained by organic matter; fine roots abundant; medium acid; gradual, wavy boundary; layer ranges from 0 to 4 inches in thickness.
- A₃ 3 to 6 inches, dark reddish-brown (2.5YR 3/4) loam or silt loam; weak, fine, crumb structure; very friable; fine roots abundant; medium acid; diffuse, wavy boundary; layer ranges from 3 to 7 inches in thickness.
- B₁ 6 to 12 inches, dark-red (10R 3/6) silty clay loam; weak, medium, subangular blocky structure; friable; slightly hard when dry and slightly sticky when wet; few concretions of manganese; few fine roots; slightly acid, diffuse, wavy boundary; layer ranges from 4 to 8 inches in thickness.
- B₂ 12 to 70 inches +, dark-red (10R 3/6) silty clay; moderate, medium, subangular blocky structure; firm; hard when dry, sticky when wet; small concretions of manganese; some fragments of chert or quartz ranging from $\frac{1}{4}$ to $\frac{3}{4}$ inch in diameter in lower part; medium to slightly acid; layer ranges from 2 to 8 feet in thickness.

Where cultivated, the surface soil is a mixture of the A₁ and A₃ horizons. The texture of the subsoil ranges from silty clay loam to clay. In the severely eroded areas, the surface layer is a dark reddish-brown silty clay loam. Bedrock is at depths ranging from 3 feet to 20 feet or more. In a few places there are chert fragments, as much as 2 inches in diameter, on the surface and throughout the profile.

A profile of Cumberland loam from a moist, idle site in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 28, T. 16 S., R. 6 E., 0.2 mile north of the Eastaboga, Ala., railroad crossing, is described as follows:

- A_p 0 to 7 inches, dark reddish-brown (2.5YR 3/4) loam; weak, fine, crumb structure; friable; fine roots abundant; strongly acid; gradual, smooth boundary; layer ranges from 0 to 8 inches in thickness.
- B₁ 7 to 12 inches, dark reddish-brown (2.5YR 3/4) silty clay loam; weak to moderate, medium, subangular blocky structure; friable; few fine roots; very strongly acid;

gradual, smooth boundary; layer ranges from 2 to 10 inches in thickness.

- B₂ 12 to 36 inches, dark-red (10R 3/6) silty clay; moderate, medium, subangular blocky structure; friable; hard when dry and sticky when wet; few concretions of manganese; very strongly acid; gradual, smooth boundary; layer ranges from 24 to 48 inches in thickness.
- B₃ 36 to 48 inches +, dark-red (10R 3/6) silty clay streaked with yellowish brown; moderate, medium, subangular blocky structure; friable to firm; few pieces of rounded chert, quartz, and sandstone gravel ranging from 1/8 to 1 inch in diameter are in the lower part; gravel increases with depth; very strongly acid.

The subsoil ranges from silty clay loam to clay in texture and from red to dark red in color. The alluvial parent material ranges from 2 to 15 feet or more in thickness. Some areas are included that have a silt loam to gravelly fine sandy loam surface soil. Other areas have rounded gravel ranging from 1 to 3 inches in diameter on the surface and throughout the soil. Some severely eroded patches have a silty clay loam plow layer.

Decatur and Cumberland loams, 2 to 6 percent slopes, eroded, are moderately fertile soils, and they contain a moderate amount of organic matter. Tilth is good, and the root zone is deep. Runoff and infiltration are medium; permeability is moderate. The capacity to hold moisture is high. The soils respond to management, and they are suited to a wide range of crops. Runoff and erosion are hazards, but the soils can be used moderately intensively.

Most of this unit has been used, mainly for cotton and corn. About 63 percent of the acreage is now cultivated; the rest is wooded, pastured, and idle. Capability unit IIe-1.

Decatur and Cumberland loams, 6 to 10 percent slopes, eroded (DdC2).—This unit differs from Decatur and Cumberland loams, 2 to 6 percent slopes, eroded, in having stronger slopes, more runoff, and a greater erosion problem. The surface soil generally is 3 to 6 inches thick. There are severely eroded places, and a few shallow gullies have formed.

Tilth is fairly good, and the root zone is thick. This unit responds to management. It can be used moderately intensively, but slopes cause some risk of runoff and erosion.

Most of this unit has been used, chiefly for cotton, corn, and hay. About 25 percent of the acreage is now cultivated; the rest is wooded, pastured, or idle. Capability unit IIIe-1.

Decatur and Cumberland loams, 10 to 25 percent slopes, eroded (DdD2).—This unit has stronger slopes, more runoff, and a thinner solum than Decatur and Cumberland loams, 2 to 6 percent slopes, eroded. Severely eroded places are more numerous, and a few shallow gullies have formed.

Tilth is poor, and the capacity for available moisture is moderate. This unit is poorly suited to frequent cultivation because of rapid runoff.

Most of the unit has been used, chiefly for cotton, corn, and hay. About 80 percent of the acreage is woodland; the rest is cultivated, pastured, or idle. Capability unit IVe-1.

Dewey Series

The Dewey series consists of deep, strongly acid, well-drained soils that have developed from residuum of limestone or old valley-fill material. These soils are fairly extensive in the vicinities of Iron City and Alexandria. Where severely eroded, they commonly have a dark reddish-brown silty clay loam surface soil and a red to dark-red silty clay loam to light silty clay subsoil. The cherty types have chert fragments, as much as 3 inches in diameter, on the surface and throughout the soil.

In most places the Dewey soils are associated with the Clarksville, Fullerton, Decatur, and Cumberland soils. They are redder and contain less chert than the Clarksville and Fullerton soils. They have a lighter colored surface soil and a more friable and less dark-red subsoil than the Decatur and Cumberland soils.

Dewey soils on slopes of 2 to 10 percent are fairly easily conserved, and they are suited to a wide range of crops. Those on slopes of 10 to 15 percent require permanent vegetation for the control of erosion.

About 41 percent of the acreage is wooded, 30 percent cultivated, and the rest pastured or idle. The present natural vegetation is mainly pine, oak, and hickory.

A typical profile of a Dewey soil is described under Dewey cherty silty clay loam, 6 to 10 percent slopes, severely eroded.

Dewey cherty silty clay loam, 6 to 10 percent slopes, severely eroded (DeC3).—This deep, well-drained, friable soil has developed on uplands.

A profile from a moist, cultivated site in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 31, T. 14 S., R. 7 E., 3.5 miles west of Alexandria, Ala., follows:

- A_p 0 to 8 inches, dark reddish-brown (5YR 3/4-3/3) cherty silty clay loam; weak, fine, crumb structure; friable; roots abundant; very strongly acid; clear, wavy boundary; layer ranges from 3 to 9 inches in thickness.
- B₁ 8 to 12 inches, dark-red (2.5YR 3/6) to red (2.5YR 4/6) silty clay loam; weak, medium, subangular blocky structure; friable; very strongly acid; gradual, wavy boundary; layer ranges from 3 to 7 inches in thickness.
- B₂ 12 to 36 inches, dark-red (2.5YR 3/6), light silty clay; moderate, medium, subangular blocky structure; friable to firm; a few clay skins, small concretions, and chert fragments; very strongly acid; gradual, smooth boundary; layer ranges from 18 to 32 inches in thickness.
- C 36 to 42 inches +, mottled red, yellowish-red, and reddish-yellow, cherty, light silty clay loam; weak, medium, subangular blocky structure; firm; very strongly acid; layer ranges from 6 to 30 inches in thickness.

The surface soil ranges in color from dark reddish brown and reddish brown to dark brown. The subsoil ranges in color from dark red to yellowish red. Some areas contain no chert, and others are very cherty. The C horizon is at depths ranging from 24 to 48 inches. Some shallow gullies and a few deep ones have formed. Some areas are included that have a silt loam to fine sandy loam surface soil.

This soil has fair tilth, but it forms clods on drying. Infiltration and internal drainage are medium. Permeability is moderate. The capacity for available moisture is high. Natural fertility and the supply of organic matter are moderate. The root zone is thick. The soil

A profile from a moist, cultivated site in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 29, T. 14 S., R. 7 E., 2.6 miles west of Alexandria, Ala., is described as follows:

- A_p 0 to 8 inches, dark-brown (7.5YR 3/2) to dark reddish-brown (5YR 3/2) silt loam; weak, fine, crumb structure; friable; fine roots abundant; slightly acid; clear, smooth boundary; layer ranges from 0 to 10 inches in thickness.
- B₁ 8 to 12 inches, reddish-brown to dark reddish-brown (5YR 4/4 to 3/4), light silty clay loam; weak, fine, crumb and weak, fine, subangular blocky structure; friable; strongly acid; gradual, wavy boundary; layer ranges from 2 to 8 inches in thickness.
- B₂ 12 to 36 inches, reddish-brown to yellowish-red (5YR 4/4-4/6) silty clay loam; weak, fine and medium, subangular blocky structure; friable; strongly acid; gradual, wavy boundary; layer ranges from 16 to 48 inches in thickness.
- B₃ 36 to 46 inches, yellowish-red (5YR 4/8), light silty clay; weak, fine to medium, subangular blocky structure; friable; strongly acid; gradual, wavy boundary; layer ranges from 8 to 14 inches in thickness.
- D 46 inches +, mottled yellowish-red and strong-brown clay and sand; massive; friable; strongly acid.

The surface soil in some areas is very dark brown. The subsoil is darker red and heavier textured where this soil grades to the Cumberland soils. The old alluvium is at depths ranging from 2 to 6 or 7 feet. A few small areas have gravel and small concretions on the surface and through the profile. Some areas having a loam and fine sandy loam surface soil are included.

This soil has slow to medium runoff, moderate permeability, and medium infiltration. The capacity for available moisture is moderate to high. Tilth is good. The root zone is thick, and natural fertility is moderate. The soil responds to management and is suited to a wide range of crops. It is fairly well supplied with organic matter and it can be used intensively.

Most of the soil has been used, mainly for cotton and corn. About 76 percent of the acreage is now in crops; the rest is in forest and pasture. Capability unit I-1.

Etowah silt loam, 2 to 6 percent slopes, eroded (EtB2).—This soil has stronger slopes, more runoff, and a thinner surface soil than Etowah silt loam, 0 to 2 percent slopes. In a few areas severe erosion has occurred and the surface layer is reddish-brown to dark reddish-brown silty clay loam with fair tilth. In places a few shallow gullies have formed.

Most areas of this soil have good tilth. The soil responds to management, and it can be used moderately intensively. Runoff is a hazard. The root zone is thick.

About 63 percent of the acreage is in crops; the rest is pastured, forested, and idle. Capability unit IIe-1.

Fullerton Series

The Fullerton series consists of strongly acid, well-drained soils that have developed from the residuum of cherty limestone. These soils occur on wide ridges with sloping to gently sloping tops and strongly sloping to moderately steep sides.

The color of the surface soil ranges from yellowish brown to light brownish gray, or from strong brown to very dark grayish brown. The texture ranges from cherty silt loam to stony loam. The subsoil ranges from red to yellowish-red cherty silty clay loam to silty clay

or stony silty clay. Fragments of chert, as much as 3 inches in diameter, are normally on the surface and throughout the soils.

Fullerton soils are associated with the Dewey, Decatur, and Clarksville soils. They are lighter colored and generally more cherty than the Dewey and the Decatur soils. They have a thicker solum and a redder subsoil and generally contain less chert than the Clarksville soils.

The present natural vegetation is mainly blackjack, post, and white oaks, hickory, and shortleaf and loblolly pines. The gently sloping to sloping areas are fairly easily conserved and suited to a wide range of crops. The steeper slopes should be in permanent vegetation to control erosion.

The strong-brown and very dark grayish-brown Fullerton stony loams are mapped with Clarksville soils as a complex (Clarksville-Fullerton stony loams).

A typical profile of a Fullerton soil is given in the mapping unit Fullerton cherty silt loam, 6 to 10 percent slopes, eroded.

Fullerton cherty silt loam, 2 to 6 percent slopes (FcB).—This soil has milder slopes, slower runoff, and a thicker surface soil than Fullerton cherty silt loam, 6 to 10 percent slopes, eroded—the soil for which the typical profile is described.

Tilth is fairly good, and the root zone is thick. The soil responds to management and is suited to moderately intensive use. Erosion, however, is a hazard.

Most of the acreage has been used, mainly for cotton and corn. About 50 percent of the acreage is now in crops; the rest is forested, pastured, and idle. Capability unit IIe-3.

Fullerton cherty silt loam, 6 to 10 percent slopes, eroded (FcC2).—This deep, well-drained, cherty soil is on uplands.

A profile from a moist, cultivated site in the NE $\frac{1}{4}$ -NW $\frac{1}{4}$ sec. 9, T. 16 S., R. 7 E., 0.3 mile southeast of New Mount Liberty Church, is described as follows:

- A_p 0 to 7 inches, yellowish-brown (10YR 5/4) cherty silt loam; weak, fine, granular structure; friable; fine roots abundant; strongly acid; gradual, wavy boundary; layer ranges from 0 to 10 inches in thickness.
- B₁ 7 to 14 inches, strong-brown (7.5YR 5/8) cherty silty clay loam; weak, fine, subangular blocky structure; friable; fine roots plentiful; strongly acid; diffuse, wavy boundary; layer ranges from 2 to 8 inches in thickness.
- B₂ 14 to 34 inches, yellowish-red (5YR 4/6) to red (2.5YR 5/6) cherty silty clay loam; moderate, medium, angular and subangular blocky structure; firm; strongly acid; gradual, wavy boundary; layer ranges from 12 to 24 inches in thickness.
- B₃ 34 to 40 inches, yellowish-red (5YR 4/8), cherty, light silty clay loam; common, medium, distinct mottles of yellow, reddish yellow, and brownish yellow; weak to moderate, medium, subangular and angular blocky structure; firm to very firm; strongly acid; gradual, wavy boundary; layer ranges from 4 to 8 inches in thickness.
- C 40 to 50 inches +, mottled yellowish-red (5YR 4/8), strong-brown (7.5YR 5/6), and pale-brown (10YR 6/3) to light-gray (10YR 7/2) chert, silt, and clay; massive; very firm; strongly acid.

The surface soil in uneroded wooded areas is thicker than described and is very dark grayish brown. In cultivated areas the surface soil ranges from yellowish brown

to light brownish gray. The subsoil ranges from red to yellowish red in color and from cherty silty clay loam to clay in texture. The thickness of the solum ranges from 18 to 50 inches.

Included with this soil are some severely eroded places in which the plow layer is a strong-brown to yellowish-red cherty silty clay loam. A few shallow gullies have formed in these areas. Also included are some areas in which the surface soil is silt loam to cherty fine sandy loam.

This soil has medium runoff and infiltration. Permeability and the capacity for available moisture are moderate. Tilth is only fair to good because of chert. The root zone is thick. Natural fertility and the supply of organic matter are low. The soil responds to management, especially to fertilization, and it is suited to a wide range of crops. It can be used moderately intensively. Erosion is a moderate hazard.

Most of the acreage has been used, chiefly for cotton and corn. About 24 percent of the acreage is now cropped; the rest is wooded, pastured, and idle. Capability unit IIIe-3.

Fullerton cherty silt loam, 10 to 15 percent slopes, eroded (FcD2).—This soil differs from Fullerton cherty silt loam, 6 to 10 percent slopes, eroded, in having stronger slopes, more runoff, and a thinner solum.

A few deep gullies and many shallow ones have formed. Tilth is poor. The capacity for available moisture is low. The soil is difficult to farm with machinery, and it is not suited to frequent cultivation. Erosion is a great hazard.

Most of the acreage has been used, mainly for cotton and corn. About 66 percent of the acreage is now in forest and only 8 percent in cultivation. The rest is pastured and idle. Capability unit IVe-2.

Fullerton cherty silt loam, 15 to 25 percent slopes (FcE).—This soil differs from Fullerton cherty silt loam, 6 to 10 percent slopes, eroded, in having a darker brown, thicker surface soil and stronger slopes, more runoff, and a thinner solum. The soil is only slightly eroded. However, where it has been cleared, erosion is moderate and shallow gullies are common.

Tilth is poor; the capacity for available moisture is low. The soil is not suitable for row crops. The erosion hazard is high.

About 81 percent of the acreage is in forest; the rest is cultivated, pastured, and idle. Capability unit VIe-1.

Fullerton cherty silty clay loam, 6 to 10 percent slopes, severely eroded (FIC3).—This soil differs from Fullerton cherty silt loam, 6 to 10 percent slopes, eroded, in that it has a finer textured surface soil. Surface runoff is more rapid. Erosion has removed all or nearly all of the original yellowish-brown cherty silt loam surface soil. The 3- to 6-inch plow layer is now a strong-brown to yellowish-red cherty silty clay loam. A few shallow gullies have formed.

Tilth is poor, and the soil bakes or clods on drying. Infiltration is slow. The soil can be used moderately intensively, but erosion is a hazard.

Most of the acreage has been used, mainly for cotton and corn. About 22 percent of the acreage is now in cultivation; the rest is forested, pastured, and idle. Capability unit IVe-2.

Fullerton cherty silty clay loam, 10 to 15 percent slopes, severely eroded (FD3).—This soil has stronger slopes, a finer textured surface layer, more runoff, and a thinner solum than Fullerton cherty silt loam, 6 to 10 percent slopes, eroded. Erosion has removed all of the original yellowish-brown cherty silt loam surface soil. The surface layer is now a strong-brown to yellowish-red cherty silty clay loam. Shallow gullies are common, and in some places a few deep ones have formed.

Tilth is poor. The soil bakes easily and forms clods if tilled when too wet. The capacity for available moisture is low. Erosion is a serious hazard. The soil is not suitable for cultivation.

Most of the acreage has been used, mainly for cotton, corn, and hay. About 5 percent of the acreage is now in cultivation; most of the rest is forested and idle. Capability unit VIe-1.

Fullerton cherty silty clay loam, 15 to 25 percent slopes, severely eroded (FIE3).—This soil has stronger slopes, a finer textured surface layer, more runoff, and a thinner solum than Fullerton cherty silt loam, 6 to 10 percent slopes, eroded. Erosion has removed all of the original yellowish-brown cherty silt loam surface soil. In cultivated areas the surface layer is now a strong-brown to yellowish-red cherty silty clay loam. Many shallow gullies and a few deep ones have formed.

Tilth is poor. The soil bakes easily, and it breaks into clods if tilled when too wet. The capacity for available moisture is low. Erosion is a great hazard. The soil is not suited to cultivation.

Most of the acreage has been used, chiefly for cotton and corn. About 5 percent of the acreage is now in crops; most of the rest is wooded and idle. Capability unit VIIe-1.

Georgeville Series

The Georgeville series consists of strongly acid to very strongly acid, well-drained soils that have developed from the residuum of Talladega slate or of mica schist and phyllite. These soils occur in the eastern part of the county on the foothills of Talladega Mountain.

The surface soil is dark-brown gravelly silt loam, and the subsoil is red silty clay loam.

Georgeville soils are associated with the Tate and the Talladega soils and with Stony rough land, slate. They are redder and deeper and have a better developed profile than the Talladega soils or Stony rough land, slate.

The present natural vegetation is mainly shortleaf and loblolly pines and oak and hickory. About 60 percent of the acreage is in cultivated areas and idle areas. Runoff and erosion should be controlled by suitable conservation practices.

The Georgeville soils are mapped with the Tate soils as undifferentiated mapping units. A typical profile of a Georgeville soil is given in the mapping unit Georgeville and Tate soils, 2 to 10 percent slopes, eroded.

Georgeville and Tate soils, 2 to 10 percent slopes, eroded (GeC2).—This mapping unit consists of one or both of these well-drained, friable soils. It occurs in small areas in the foothills of Talladega Mountain.

A profile of Georgeville gravelly silt loam in a moist, idle site in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 16 S., R. 9 E., 2.5

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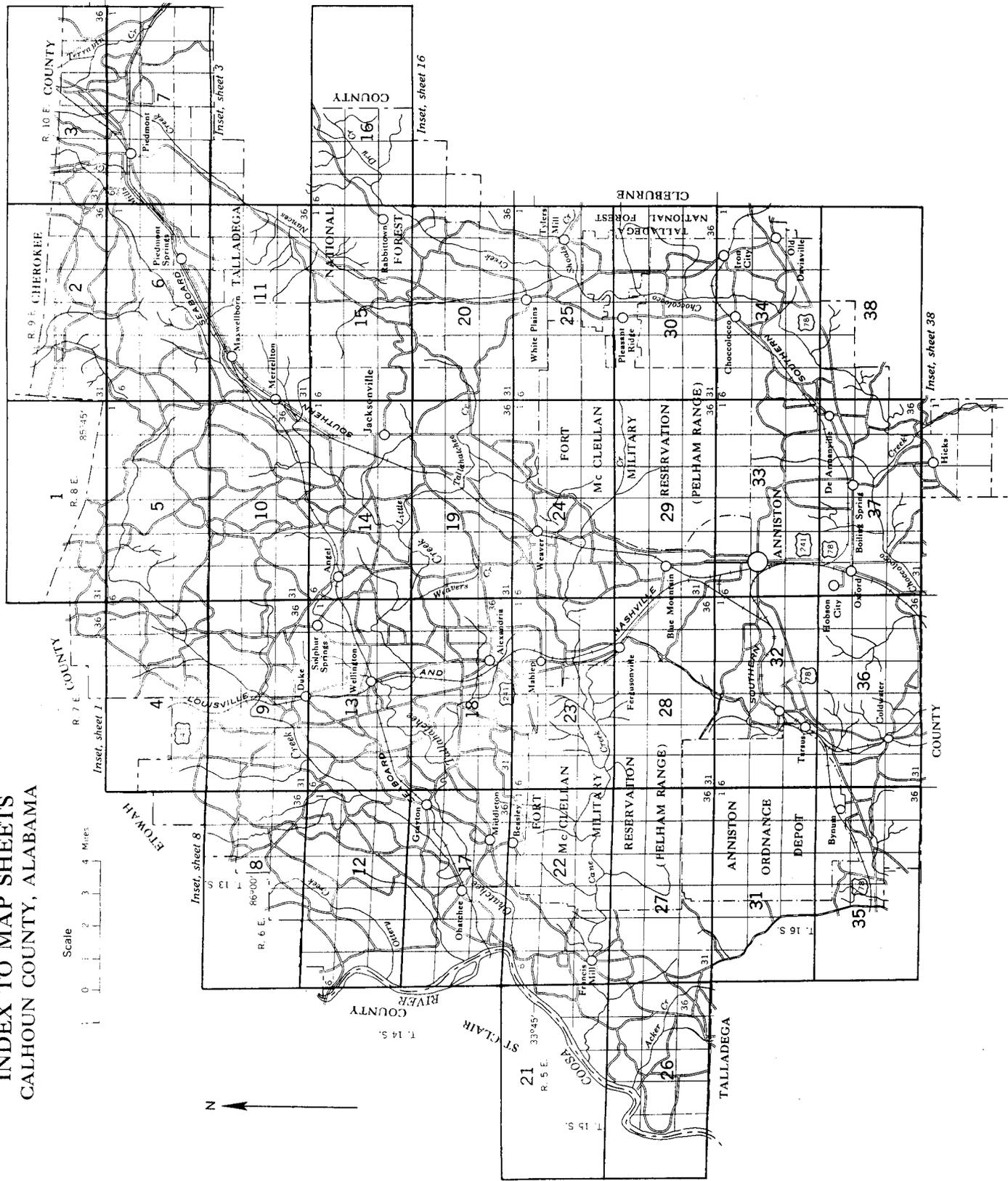


TABLE 5.—The suitability of the soils for earth construction and

Soil series	Map symbols	Suitability of soil for—					Soil characteristics affecting—	
		Suitability for grading when wet	Septic tanks	Road grade ¹	Road fill	Topsoil ²	Sand and gravel	Construction of highways
Cane	CcB2, CcC2	Good	Poor	Good	Good	Good in surface soil.	Poor	Drainage 3 to 10 feet of sandy loam and sandy clay loam shale or sandstone, 3 feet + of silt loam to cherty clay loam lime-stone. 3 to 20 feet of cherty silt clay.
Captina	CcB, CcB2	Fair	Poor	Fair to poor	Fair	Good in surface soil.	Unsuitable	Seasonal high water table; perched.
Clarksville ³	CkB, CkC, CkC2, CkD, CkE	Fair to good	Good	Excellent	Excellent	Poor	Unsuitable	Good
Consauga	CcB2	Poor	Poor	Poor to very poor	Poor	Poor	Unsuitable	Seasonal high water table.
Cumberland	CcB2, CcB3, CcC3, CrD3	Poor	Good	Fair to poor	Fair to good	Good in surface soil.	Unsuitable	Good
Decatur and Cumberland	DcB3, DcC3, DcB2, DcC2, DcD2	Poor	Good	Fair to poor	Fair to good	Good in surface soil.	Unsuitable	Good
Devey	DcC3, DcD3, DcB3, DcC3	Poor	Good	Fair to poor	Fair to good	Good in surface soil.	Unsuitable	Good
Dunning	DuA	Poor	Poor	Poor to very poor	Poor	Fair in surface layer.	Unsuitable	High water table.
Eanders	EcB2, EcC2, EcD	Fair	Good	Fair to poor	Good	Good in surface soil.	Unsuitable	Good

¹See footnotes at end of table.

soil characteristics that affect engineering work—Continued

Soil characteristics affecting—Continued	Construction of farm ponds			Irrigation	Use of terraces and diversions	Waterway problems	Comments
	Impounding area	Embankments	Agricultural drainage				
Impervious	Moderate to low strength and stability.	Slowly permeable.	Medium infiltration; moderate water-holding capacity.	Needed; easy to build and maintain.	Vegetation needed; shaping may be needed.	Fragipan at depths of 21 to 36 inches; siltling is a problem in terraces and waterways.	
Impervious	Low strength and stability.	Slowly permeable.	Medium infiltration; moderate water-holding capacity.	Needed on slopes of 3 to 4 percent; easy to build and maintain.	Vegetation needed.	Fragipan at depths of 14 to 34 inches.	
Excess seepage	Adequate strength and stability.	Rapidly permeable.	Medium infiltration; moderate water-holding capacity.	Needed; moderately difficult to build and maintain.	Vegetation needed; moderately difficult to cut to shape.	Very cherty; stones below surface are often a problem.	
Impervious	Low to moderate strength and stability.	Slowly permeable.	Slow infiltration; low water-holding capacity.	Difficult to build and maintain.	Stabilization needed.	Siltling; contains plastic clay.	
Excess seepage	Low strength and stability.	Moderately permeable.	Medium infiltration; high water-holding capacity.	Moderately difficult to build and maintain.	Vegetation needed; shaping may be needed.	Terrace layout is a problem because of undulating topography; siltling is a problem in the maintenance of terraces.	
Excess seepage	Low strength and stability.	Moderately permeable.	Medium infiltration; high water-holding capacity.	Moderately difficult to build and maintain.	Vegetation needed; shaping needed in places.	Terrace layout is a problem because of undulating topography; siltling is a problem in the maintenance of terraces.	
Excess seepage	Low strength and stability.	Moderately permeable.	Medium infiltration; high water-holding capacity.	Difficult to build and maintain.	Vegetation needed; shaping generally required.	Siltling is a problem in the maintenance of terraces.	
Impervious	Low strength and stability.	Slowly permeable.	Slow infiltration; low water-holding capacity.	Structures not needed.	Waterways not needed.	Plastic clay.	
Fairly impervious.	Moderate strength and stability.	Moderately permeable.	Rapid to medium infiltration; moderate water-holding capacity.	Needed; easy to build and maintain.	Vegetation needed.	None.	

TABLE 5.—The suitabilities of the soils for earth construction and

Soil series	Map symbols	Suitability for grading when wet	Suitability of soil for—					Soil characteristics affecting—	
			Septic tanks	Road sub-grade ¹	Road fill	Topsoil ²	Sand and gravel	Construction of highways	
								Road cuts	Drainage
Etowah	Eta, EtB2	Poor	Good	Fair to poor	Fair to good	Good in surface soil	Unsuitable	2 to 5 feet of silty clay loam over stratified material.	Good
Fullerton ³	FcB, FcC2, FcD2, FcE, FIC3, FID3, FIE3, GeC2	Good	Good	Good	Excellent	Good in surface soil	Unsuitable	3 to 10 feet of cherty silty clay.	Good
Georgeville and Tate		Fair	Fair	Fair to poor	Good	Very good in surface soil	Unsuitable	1.5 to 3.5 feet of silty clay over schist.	Good
Holston	HoB2, HoC2	Fair to good	Good	Fair to poor	Good	Good in surface soil	Some places are good at depths of about 40 inches.	2.5 to 4 feet of sandy loam over shale, limestone, or stratified material.	Good
Huntington	HuA	Poor	Poor	Poor	Fair	Good	Unsuitable	6 to 20 feet of silt loam over limestone.	Seasonal high water table.
Jefferson	JeB2, JeC2, JeD2, JfB, JfD	Good	Good	Good	Good	Very good in surface soil	Poor	1.5 to 4 feet of gravelly sandy loam over sandstone, shale, or limestone.	Good
Landisburg	LaB2, LaC2	Good	Poor	Good	Good	Good in surface soil	Unsuitable	20 feet + of cherty silty clay loam.	Good
Lee	LcA, LeA	Poor	Poor	Poor to fair	Fair	Fair in surface soil	Unsuitable	1 to 4 feet of silt loam to cherty silty clay over beds of chert or silt.	High water table.
Lehew-Montevado soils	LhC2, LhD2, LhE	Good	Poor	Fair to poor	Good	Good in surface layer.	Unsuitable	1 to 2.5 feet of shaly loam over shale.	Good
Lindside	LkA	Poor	Poor	Poor	Fair	Good in surface layer.	Unsuitable	4.15 feet of silt loam over limestone.	Seasonal high water table.

See footnotes at end of table.

soil characteristics that affect engineering work—Continued

Soil characteristics affecting—Continued						Waterway problems	Comments
Construction of farm ponds			Irrigation	Use of terraces and diversions			
Impounding area	Embankments	Agricultural drainage					
Fairly impervious.	Low strength and stability.	Moderately permeable.	Medium infiltration; high water-holding capacity.	Needed on sloping areas; fairly easy to build and maintain.	Shaping and vegetation needed.	Sedimentation is a problem in level waterways.	
Excess seepage.	Moderate strength and stability.	Moderately permeable.	Medium infiltration; moderate water-holding capacity.	Fairly easy to build and maintain.	Vegetation needed; some shaping needed.	Where severely eroded, siting of terraces is a problem.	
Fairly impervious.	Moderate to low strength and stability.	Moderately permeable.	Medium infiltration; moderate water-holding capacity.	Fairly easy to build and maintain.	Vegetation needed.	Siting of terraces is a problem.	
Excess seepage.	Adequate strength and stability.	Moderately permeable.	Medium infiltration; moderate to high water-holding capacity.	Easy to build and maintain.	Vegetation needed; shaping may be needed.		
Excess seepage; lime sinks.	Low strength and stability; moderate permeability.	Moderately permeable.	Medium infiltration; high to moderate water-holding capacity.	Needs protection from higher slopes.	Sedimentation	May have a seasonal high water table.	
Excess seepage.	Adequate strength and stability.	Moderately permeable.	Medium infiltration; high water-holding capacity.	Fairly easy to build and maintain.	Vegetation needed.		
Excess seepage.	Moderate strength and stability.	Slowly permeable.	Medium infiltration; low water-holding capacity.	Moderately difficult to build and maintain.	Vegetation needed; shaping may be needed.	Fragipan at depths of 20 to 30 inches.	
Excess seepage.	Low strength and stability.	Slowly permeable.	Slow infiltration; low water-holding capacity.	Structures not needed.	Waterways not needed.	Seasonal high water table.	
Impervious.	Moderate strength and stability.	Moderately to rapidly permeable.	Medium infiltration; low water-holding capacity.	Difficult to build and very difficult to maintain.	Thick vegetation needed.	Shallow, or AC, soils; highly erodible.	
Excess seepage.	Low strength and stability.	Slowly permeable.	Medium infiltration; moderate water-holding capacity.	Structures not needed.	Waterways not needed.	Seasonal high water table.	

TABLE 5.—The suitability of the soils for earth construction and

Soil series	Map symbols	Suitability for grading without wet	Suitability of soil for—					Soil characteristics affecting—	
			Septic tanks	Road sub-grade ¹	Road fill	Topsoil ²	Sand and gravel	Construction of highways	
								Road cuts	Drainage
Lindside and Newark	L1A	Poor	Poor	Fair	Good	Unsuitable	2 to 4 feet of silt over loam over stratified silt and clay.	Seasonal high water table.	
Linker	LnC2	Good	Good to fair	Good	Very good in surface soil.	Underlain by a weak sand-silt in places.	2.5 to 7 feet of fine sandy loam over silt and clay.	Good	
Lobelville	LoA, LpA	Poor	Good	Good	Good in surface soil.	Unsuitable	1 to 3 feet of cherty silt loam or silt.	Seasonal high water table.	
Locust	LsA, LsB2, LsC2	Fair	Good to fair	Good	Very good in surface soil.	Unsuitable	1 to 2.5 feet of gravelly sandy loam and sandy clay.	Seasonal high water table.	
Melvin	MaA	Poor	Poor	Fair	Fair	Unsuitable	2.5 to 5 feet of silt loam over stratified material.	High water table, frequently flooded.	
Mimvale	MnB2	Good	Good	Good	Good in surface soil.	Has high percentage of chert gravel.	20 feet of stony and silty clay.	Very good.	
Montgomery	MoA, MoB2	Fair to poor	Good to fair	Good	Good in surface soil.	Fair	3 to 10 feet of stratified sandy clay loam and sandy loam.	Seasonal high water table.	
Montevallo ⁴	MoD, MoE, MoC3, MoD3	Fair	Poor to fair	Fair	Fair in surface layer.	Unsuitable	1 to 1.5 feet of shaly silt loam over shale.	Good	
Muskingum	MuD, MuE	Good	Good	Good	Fair in surface soil.	Fair to poor	1 to 2 feet of stony fine sandy loam over silt.	Good	
Nolichucky	NcB2, NcC2	Good	Good	Good	Very good in surface soil.	Good	1 to 7 feet of gravelly sandy loam or gravelly loam.	Good	

See footnotes at end of table.

soil characteristics that affect engineering work.—Continued

Soil characteristics that affect engineering work	Construction of farm ponds			Irrigation	Use of terraces and diversions	Waterway problems	Comments
	Impounding area	Embankments	Agricultural drainage				
Fairly impervious.	Adequate strength and stability.	Moderately permeable.	Medium to slow infiltration, high water-holding capacity.	Structures not needed.	Waterways not needed.	Soluble limestone; seasonal high water table.	
Fairly impervious.	Adequate strength and stability.	Moderately permeable.	Medium infiltration, moderate water-holding capacity.	Easy to build and maintain.	Vegetation needed.		
Excess seepage.	Low to moderate strength and stability.	Slowly permeable.	Medium infiltration, low water-holding capacity.	Structures not needed.	Waterways not needed.	Seasonal high water table.	
Fairly impervious.	Moderate to adequate strength and stability.	Slowly permeable.	Medium infiltration, low to moderate water-holding capacity.	Needed on slopes; easy to build and maintain.	Vegetation needed; shap- ing may be needed.	Fragile at depths of 15 to 30 inches.	
Fairly impervious.	Low strength and stability.	Slowly permeable.	Slow to medium infiltration; high water-holding capacity.	Structures not needed.	Waterways not needed.	High water table.	
Excess seepage.	Moderate strength and stability.	Rapidly permeable.	Medium infiltration, moderate water-holding capacity.	Fairly easy to build and maintain.	Vegetation needed; shap- ing may be needed.	Silt- ing is often a problem in the maintenance of terraces.	
Fairly impervious.	Moderate strength and stability.	Slowly permeable.	Medium infiltration, low to moderate water-holding capacity.	Needed on sloping areas; fairly easy to build and maintain.	Vegetation needed; shap- ing may be needed.	Level areas not erodible; frag- mented at depths of 13 to 32 inches.	
Impervious.	Moderate strength and stability.	Rapidly permeable.	Medium infiltration, low water-holding capacity.	Structures not recommended.	Waterways not recommended.	Shallow, or AC, soils; highly erodible.	
Fairly impervious.	Moderate strength and stability.	Rapidly permeable.	Medium infiltration, low water-holding capacity.	Structures not recommended.	Waterways not recommended.	Shallow and stony soils.	
Excess seepage.	Adequate strength and stability.	Moderately permeable.	Medium infiltration, high water-holding capacity.	Easy to build and maintain.	Vegetation needed; shap- ing may be needed.		

TABLE 5.—The suitability of the soils for earth construction and

Soil series	Map symbols	Suitability of soil for—					Soil characteristics affecting—	
		Sephie tanks	Road sub-grade ¹	Road fill	Topsoil ²	Sand and gravel	Construction of highways	
							Road cuts	Drainage
Philo and Stendal	PhA, PIA, PKA	Poor	Poor to fair	Fair	Good	Fair to poor	6 feet + of stratified fine loam, silt loam, and fine sand.	Seasonal high water table, frequently flooded.
Pope	POA, PPA	Fair	Fair to poor	Good	Good	Fair to good	8 feet + of stratified sandy silt loam, and fine sand.	Seasonal high water table.
Purdy	PUA	Poor	Poor	Fair	Fair to poor	Poor	5 feet + of stratified silt loam, fine loam, and clay.	Seasonal high water table.
Barden ³	RaB2, RaC2, RbB2, RbC2, RbB3, RbC3	Poor	Poor	Fair	Poor	Unsuitable	1.5 to 4 feet of plastic clay over shale.	Perched, seasonal high water table.
Robertsville	ROA, RA	Poor	Poor	Fair	Poor	Unsuitable	3 to 6 feet of stratified silt loam and clay over lime.	High water table.
Squatatchie	SeA, SeB, SeB2, SeB3	Good	Good	Good	Very good in surface layer	Fair to good	8 feet + of clay loam or fine sandy loam.	Good
Taft	TA A	Poor	Poor	Fair	Fair in surface soil.	Unsuitable	4 feet + of silty loam and silty clay loam.	Seasonal high water table.
Talladega	TdE	Fair	Poor to fair	Fair	Poor	Unsuitable	1 to 2.5 feet of silty clay loam over schist or slate.	Good
Tate	TeB2, TeC2, TeB3, TeC3	Fair	Fair to poor	Good	Good in surface soil	Unsuitable	2 feet + of gravelly silty clay loam over schist or slate.	Good
Taylor	TyA	Poor	Fair to poor	Good	Fair to good in surface soil.	Poor	2 to 8 feet + of fine sandy clay loam.	High water table.

¹ Rating is for disturbed material, and, in places, proper drainage will have to be provided.

² Rating is for the A horizon material for use on embankments, on cut slopes, and in ditches to promote the growth of vegetation.

soil characteristics that affect engineering work—Continued

Soil characteristics affecting—Continued				Waterway problems	Comments
Construction of farm ponds		Irrigation	Use of terraces and diversions		
Impounding area	Embankments			Agricultural drainage	
Fairly impervious.	Low to moderate strength and stability.	Moderately permeable.	Medium infiltration; high water-holding capacity.	Waterways not needed.	Seasonal high water table.
Fairly impervious.	Low to moderate strength and stability.	Moderately permeable.	Medium to high infiltration; high water-holding capacity.	Waterways not needed.	Seasonal high water table.
Impervious	Low strength and stability.	Slowly permeable.	Slow infiltration; low water-holding capacity.	Waterways not needed.	Fragipan or clay-pati at depths of 10 to 18 inches.
Impervious	Moderate strength and stability.	Slowly permeable.	Medium infiltration; low water-holding capacity.	Thick vegetation needed.	Plastic clay subsoil.
Impervious	Low strength and stability.	Slowly permeable.	Slow infiltration; low water-holding capacity.	Waterways not needed.	Fragipan or clay-pati at depths of 12 to 23 inches.
Excess seepage	Adequate strength and stability.	Moderately permeable.	Medium infiltration; moderate water-holding capacity.	Vegetation needed; sloping and shaping may be needed.	Fragipan at depths of 15 to 24 inches.
Fairly impervious.	Low strength and stability.	Slowly permeable.	Medium infiltration; low water-holding capacity.	Waterways not recommended.	Shallow, or AC, soils; highly erodible.
Impervious	Low strength and stability.	Rapidly permeable.	Medium infiltration; low water-holding capacity.	Waterways not recommended.	Shallow, or AC, soils; highly erodible.
Fairly impervious.	Moderate to low strength and stability.	Moderately permeable.	Medium to slow infiltration; moderate water-holding capacity.	Vegetation needed; sloping may be needed.	Erodible soil.
Fairly impervious.	Moderate strength and stability.	Slowly permeable.	Medium infiltration; low water-holding capacity.	Waterways not needed.	Fragipan at depths of 14 to 24 inches.

³ Clarksville-Fullerton complexes are indicated by map symbols C1C, C1D, and C1F.
⁴ Barden-Montevallo complex is indicated by map symbol Rb2.

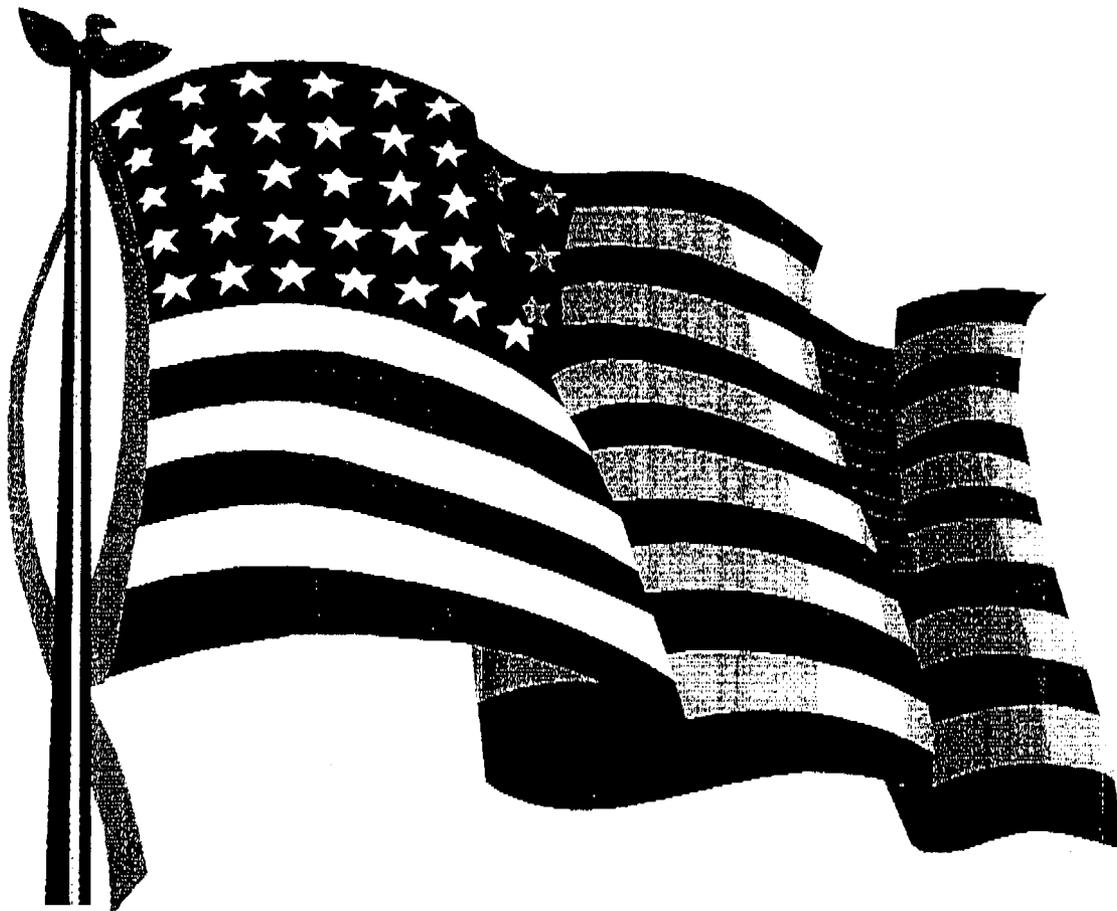


GUIDE TO MAPPING UNITS AND CAPABILITY UNITS

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AbC3	Anniston gravelly clay loam, 6 to 10 percent slopes, severely eroded....	48	IVe-1	12
AbD3	Anniston gravelly clay loam, 10 to 15 percent slopes, severely eroded...	48	VIe-1	14
AbE3	Anniston gravelly clay loam, 15 to 25 percent slopes, severely eroded...	48	VIIe-1	15
AcA	Anniston and Allen gravelly loams, 0 to 2 percent slopes.....	48	I-1	7
AcB2	Anniston and Allen gravelly loams, 2 to 6 percent slopes, eroded.....	48	Ie-1	8
AcC2	Anniston and Allen gravelly loams, 6 to 10 percent slopes, eroded.....	49	IIIe-1	10
AcD2	Anniston and Allen gravelly loams, 10 to 15 percent slopes, eroded....	49	IVe-1	12
AcE2	Anniston and Allen gravelly loams, 15 to 25 percent slopes, eroded....	49	VIe-1	14
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AsA	Atkins and Stendal soils, local alluvium, 0 to 2 percent slopes.....	50	IW-1	14
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CbB2	Cane fine sandy loam, 2 to 6 percent slopes, eroded.....	51	Ie-5	9
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CcB	Captina silt loam, 0 to 6 percent slopes.....	52	Ie-5	9
CcB2	Captina silt loam, 2 to 6 percent slopes, eroded.....	52	Ie-5	9
CkB	Clarksville cherty silt loam, 2 to 6 percent slopes.....	52	Ie-3	8
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CID	Clarksville-Fullerton stony loams, 10 to 15 percent slopes.....	53	VIe-2	14
CIF	Clarksville-Fullerton stony loams, 15 to 40 percent slopes.....	54	VIIe-1	15
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CoB2	Cumberland gravelly loam, 2 to 6 percent slopes, eroded.....	55	Ie-1	8
CrB3	Cumberland gravelly clay loam, 2 to 6 percent slopes, severely eroded...	55	IIIe-1	10
CrC3	Cumberland gravelly clay loam, 6 to 10 percent slopes, severely eroded...	55	IIIe-1	10
CrD3	Cumberland gravelly clay loam, 10 to 25 percent slopes, severely eroded.	55	IVe-1	12
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DdC2	Decatur and Cumberland loams, 6 to 10 percent slopes, eroded.....	57	IIIe-1	10
DdD2	Decatur and Cumberland loams, 10 to 25 percent slopes, eroded.....	57	IVe-1	12
DeC3	Dewey cherty silty clay loam, 6 to 10 percent slopes, severely eroded...	57	IIIe-1	10
DeD3	Dewey cherty silty clay loam, 10 to 15 percent slopes, severely eroded...	58	IVe-1	12
DsB3	Dewey silty clay loam, 2 to 6 percent slopes, severely eroded.....	58	IIIe-1	10
DsC3	Dewey silty clay loam, 6 to 10 percent slopes, severely eroded.....	58	IIIe-1	10
DuA	Dunning silt loam, overwashed, 0 to 2 percent slopes.....	58	IW-1	14
EnB2	Enders gravelly fine sandy loam, 2 to 6 percent slopes, eroded.....	59	Ie-4	8
EnC2	Enders gravelly fine sandy loam, 6 to 10 percent slopes, eroded.....	59	IIIe-4	11
EnD	Enders gravelly fine sandy loam, 10 to 15 percent slopes.....	59	IVe-2	13
EtA	Etowah silt loam, 0 to 2 percent slopes.....	59	I-1	7
EtB2	Etowah silt loam, 2 to 6 percent slopes, eroded.....	60	Ie-1	8
FcB	Fullerton cherty silt loam, 2 to 6 percent slopes.....	60	Ie-3	8
FcC2	Fullerton cherty silt loam, 6 to 10 percent slopes, eroded.....	60	IIIe-3	10
FcD2	Fullerton cherty silt loam, 10 to 15 percent slopes, eroded.....	61	IVe-2	13
FcE	Fullerton cherty silt loam, 15 to 25 percent slopes.....	61	VIe-1	14
FIC3	Fullerton cherty silty clay loam, 6 to 10 percent slopes, severely eroded...	61	IVe-2	13
FID3	Fullerton cherty silty clay loam, 10 to 15 percent slopes, severely eroded.	61	VIe-1	14
FIE3	Fullerton cherty silty clay loam, 15 to 25 percent slopes, severely eroded.	61	VIIe-1	15
GeC2	Georgeville and Tate soils, 2 to 10 percent slopes, eroded.....	61	IIIe-4	11
Gl	Gullied land.....	62	VIIe-1	15
HoB2	Holston fine sandy loam, 2 to 6 percent slopes, eroded.....	62	Ie-2	8
HoC2	Holston fine sandy loam, 6 to 10 percent slopes, eroded.....	63	IIIe-2	10
HuA	Huntington silt loam, local alluvium, 0 to 2 percent slopes.....	63	I-2	7
JeB2	Jefferson gravelly fine sandy loam, 2 to 6 percent slopes, eroded.....	63	Ie-2	8
JeC2	Jefferson gravelly fine sandy loam, 6 to 10 percent slopes, eroded.....	64	IIIe-2	10
JeD2	Jefferson gravelly fine sandy loam, 10 to 15 percent slopes, eroded.....	64	IVe-2	13
JfB	Jefferson stony fine sandy loam, 0 to 10 percent slopes.....	64	IVe-4	14
JfD	Jefferson stony fine sandy loam, 10 to 25 percent slopes.....	64	VIe-2	14

GUIDE TO MAPPING UNITS AND CAPABILITY UNITS—Continued

Map symbol	Soil name	Page	Capability unit	Page
LaB2	Landisburg cherty silt loam, 2 to 6 percent slopes, eroded.....	64	IIe-5	9
LaC2	Landisburg cherty silt loam, 6 to 10 percent slopes, eroded.....	65	IIIe-5	11
LcA	Lee silt loam and cherty silt loam, 0 to 2 percent slopes.....	65	IVw-1	14
LeA	Lee silt loam, local alluvium, 0 to 2 percent slopes.....	65	IVw-1	14
LhC2	Lehew-Montevallo soils, 2 to 10 percent slopes, eroded.....	66	IVe-3	13
LhD2	Lehew-Montevallo soils, 10 to 15 percent slopes, eroded.....	66	VIe-3	15
LhE	Lehew-Montevallo soils, 15 to 30 percent slopes.....	66	VIIe-2	15
LkA	Lindside silt loam, local alluvium, 0 to 2 percent slopes.....	66	IIIw-1	12
LlA	Lindside and Newark silt loams, 0 to 2 percent slopes.....	66	IIIw-1	12
LnC2	Linker gravelly fine sandy loam, 6 to 10 percent slopes, eroded.....	67	IIe-2	10
LoA	Lobelville cherty silt loam, local alluvium, 0 to 2 percent slopes.....	68	IIIw-1	12
LpA	Lobelville silt loam and cherty silt loam, 0 to 2 percent slopes.....	68	IIIw-1	12
LsA	Locust gravelly fine sandy loam, 0 to 2 percent slopes.....	69	IIe-5	9
LsB2	Locust gravelly fine sandy loam, 2 to 6 percent slopes, eroded.....	69	IIe-5	9
LsC2	Locust gravelly fine sandy loam, 6 to 10 percent slopes, eroded.....	69	IIIe-5	11
MaA	Melvin silt loam, 0 to 2 percent slopes.....	70	IVw-1	14
Me	Mine wash.....	70	None	
MnB2	Minvale cherty silt loam, 2 to 6 percent slopes, eroded.....	70	IIe-3	8
MoA	Monongahela loam, 0 to 2 percent slopes.....	71	IIe-5	9
MoB2	Monongahela loam, 2 to 6 percent slopes, eroded.....	71	IIe-5	9
MsD	Montevallo shaly silt loam, 10 to 15 percent slopes.....	72	VIe-3	15
MsE	Montevallo shaly silt loam, 15 to 40 percent slopes.....	72	VIIe-2	15
MtC3	Montevallo shaly silty clay loam, 6 to 10 percent slopes, severely eroded.....	72	VIe-3	15
MtD3	Montevallo shaly silty clay loam, 10 to 40 percent slopes, severely eroded.....	72	VIIe-2	15
MuD	Muskingum stony fine sandy loam, 10 to 15 percent slopes.....	72	VIe-2	14
MuE	Muskingum stony fine sandy loam, 15 to 25 percent slopes.....	73	VIIe-2	15
NcB2	Nolichucky gravelly fine sandy loam, 2 to 6 percent slopes, eroded.....	73	IIe-2	8
NcC2	Nolichucky gravelly fine sandy loam, 6 to 10 percent slopes, eroded.....	73	IIIe-2	10
PhA	Philo and Stendal fine sandy loams, 0 to 2 percent slopes.....	74	IIIw-1	12
PIA	Philo and Stendal silt loams, 0 to 2 percent slopes.....	74	IIIw-1	12
PkA	Philo and Stendal soils, local alluvium, 0 to 2 percent slopes.....	75	IIIw-1	12
PoA	Pope fine sandy loam, 0 to 2 percent slopes.....	75	IIw-1	9
PpA	Pope silt loam, 0 to 2 percent slopes.....	75	IIw-1	9
PuA	Purdy silt loam, 0 to 2 percent slopes.....	76	IVw-1	14
RaB2	Rarden gravelly loam, shallow, 2 to 6 percent slopes, eroded.....	76	IIIe-6	11
RaC2	Rarden gravelly loam, shallow, 6 to 10 percent slopes, eroded.....	76	IIIe-6	11
RdB2	Rarden silt loam, shallow, 2 to 6 percent slopes, eroded.....	76	IIIe-6	11
RdC2	Rarden silt loam, shallow, 6 to 10 percent slopes, eroded.....	76	IIIe-6	11
ReB3	Rarden silty clay loam, shallow, 2 to 6 percent slopes, severely eroded.....	77	IVe-3	13
ReC3	Rarden silty clay loam, shallow, 6 to 10 percent slopes, severely eroded.....	77	IVe-3	13
RmC2	Rarden-Montevallo complex, 2 to 10 percent slopes, eroded.....	77	IVe-3	13
RoA	Robertsville silt loam, 0 to 2 percent slopes.....	78	IVw-1	14
RsA	Robertsville silt loam, overwashed, 0 to 2 percent slopes.....	78	IIIw-2	12
ScA	Sequatchie fine sandy loam, 0 to 2 percent slopes.....	78	I-1	7
ScB	Sequatchie fine sandy loam, 2 to 6 percent slopes.....	79	IIe-2	8
ScB2	Sequatchie fine sandy loam, 2 to 6 percent slopes, eroded.....	79	IIe-2	8
SeB2	Sequatchie gravelly fine sandy loam, 2 to 6 percent slopes, eroded.....	79	IIe-2	8
Sr	Stony rough land, limestone.....	79	VIIe-2	15
Ss	Stony rough land, sandstone.....	79	VIIe-2	15
St	Stony rough land, slate.....	79	VIIe-2	15
TaA	Taft silt loam, 0 to 2 percent slopes.....	80	IIIw-2	12
TdE	Talladega soils, 10 to 40 percent slopes.....	80	VIIe-2	15
TeB2	Tate gravelly silt loam, 2 to 6 percent slopes, eroded.....	81	IIe-4	8
TeC2	Tate gravelly silt loam, 6 to 10 percent slopes, eroded.....	81	IIIe-4	11
TgB3	Tate gravelly silty clay loam, 2 to 6 percent slopes, severely eroded.....	81	IIIe-4	11
TgC3	Tate gravelly silty clay loam, 6 to 10 percent slopes, severely eroded.....	81	IVe-2	13
Tr	Terrace escarpments.....	82	VIIe-2	15
TyA	Tyler silt loam, 0 to 2 percent slopes.....	82	IIIw-2	12



Red River Defense Committee

*Fax to: Ms. Diedre Nurre
Fax Number: 703-696-0550*

From: Ms. Reon Hall

Corrected information on package submitted 5 June 1995

ANAD ELECTRICAL CAPACITY

2 - 44/12.47 KV SUBSTATIONS:

	<u>AVAILABLE</u>	<u>DEMAND</u>
NICHOLS INDUSTRIAL COMPLEX	14,000 KVA	9,000 KW
WEST AREA AND RESTRICTED AREA	7,000 KVA	3,000 KW

ANAD DEMAND IS APPROXIMATELY 12,000 KW

EXCESS CAPACITY

NICHOLS INDUSTRIAL COMPLEX	36%
WEST AREA AND RESTRICTED AREAS	57%

RRAD USAGE

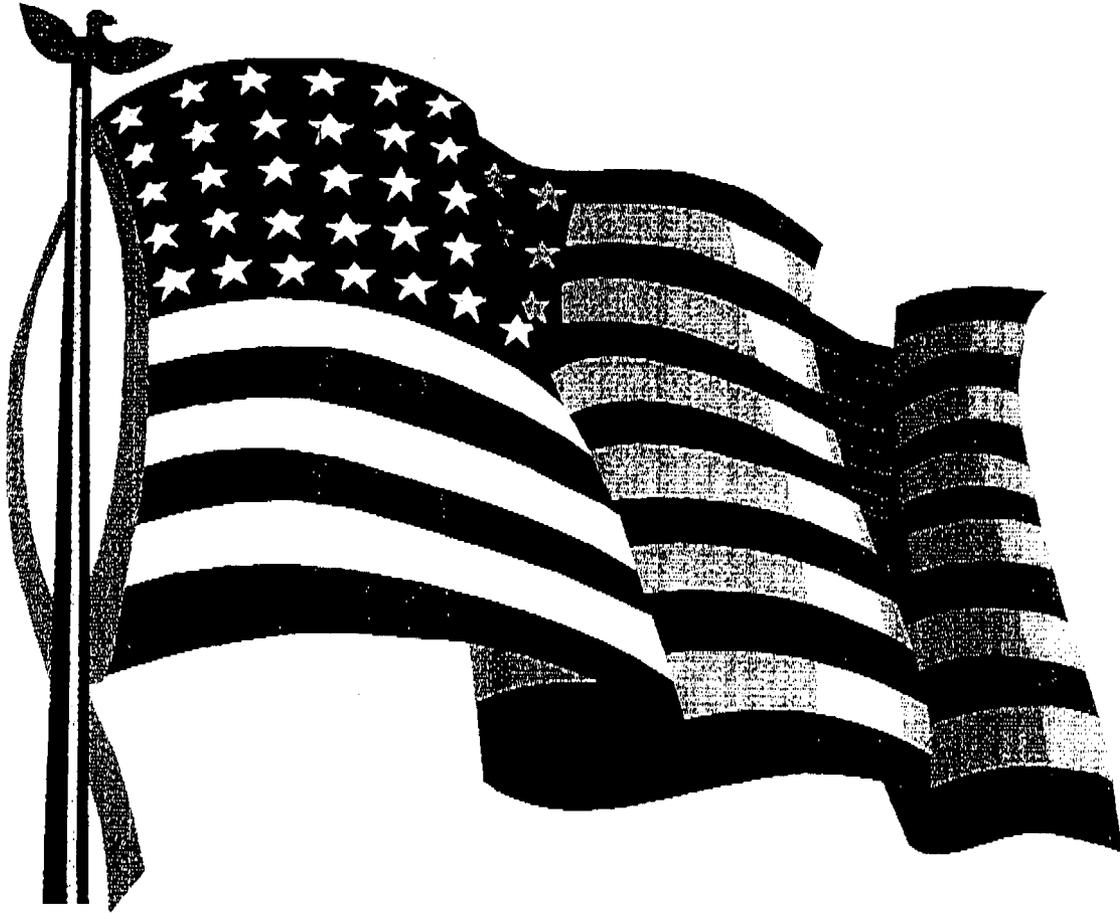
58.5M KW/YR

Assumptions:

- Nichols Industrial Substation supports vehicle maintenance and storage
- 9,000 KW represents current demand at 64% of KVA

ANAD MAY REQUIRE ADDITIONAL ELECTRICAL CAPACITY PRIOR TO ACCEPTANCE OF RRAD MAINTENANCE AND DDRT WORKLOAD

Document Separator



Red River Defense Committee

*Fax to: Ms. Diedre Nurre
Fax Number: 703-696-0550*

From: Ms. Reon Hall

Information provided per request of Mr. Bob Cook, 1 Jun 1995

**ANNISTON HAS INSUFFICIENT INDUSTRIAL WASTE
TREATMENT CAPACITY TO ACCEPT TRANSFER OF
RRAD MAINTENANCE WORKLOAD**

ANAD TOTAL INDUSTRIAL WASTE TREATMENT CAPACITY	270,000 *
ANAD AVERAGE DISCHARGE	130,000
EXCESS CAPACITY	140,000
RRAD AVERAGE DISCHARGE	335,971

ANAD CAPACITY SHORTFALL 195,971 GAL/DAY

**TRANSFER OF RRAD MAINTENANCE MISSION TO ANAD WOULD REQUIRE
CONSTRUCTION OF NEW INDUSTRIAL WASTE TREATMENT PLANT**

* Maximum capacity including surge

SOURCE: ANAD INFORMATION BOOKLET

for
B.G. JAMES E. SHAW,
Robert M. Miller, JR., AND
RON HAMNER
10-11 APRIL 1995

INDUSTRIAL WASTE TREATMENT PLANT

● RECEIVES WASTEWATER FROM:

- WASH RACKS / STEAM CLEANING
- METAL CLEANING / PAINT STRIPPING
- ELECTROPLATING
- PAINTING

● TREATMENT PROCESSES

CAPACITIES (GAL/DAY)

- CYANIDE / CADMIUM _____ 20,000

- OIL & GREASE REMOVAL _____ 130,000 *

- GENERAL WASTE (ACIDS, BASES) _____ 120,000 *

- CHROMIUM _____ 60,000

- PHENOL _____ (NOT IN USE) _____ 20,000 *

TOTAL CAPACITY _____ 270,000 *(GAL/DAY)

AVERAGE DISCHARGE _____ 130,000

% OF CAPACITY _____ **48%**

IN COMPLIANCE

- DISCHARGE TO SEWAGE TREATMENT PLANT
- PLAN TO ADD MICRO FILTRATION IN FY 96
- POLLUTION PREVENTION INITIATIVES WILL REDUCE DISCHARGES

RRAD INDUSTRIAL WASTE TREATMENT EFFLUENT

	MG
DEC 94	10.076
NOV 94	8.703
OCT 94	9.433
SEP 94	11.125
AUG 94	13.162
JUL 94	10.423
JUN 94	8.816
MAY 94	11.627
APR 94	10.040
MAR 94	12.447
FEB 94	10.498
JAN 94	11.751

128.101 MG

128.101 / 365 DAYS/YR = 0.350 DAILY AVG OR 350,000 GAL/DAY

RUBBER PRODUCTS (BLDG 493)
DLA & INFILTRATION

30 GAL/DAY
13,999 GAL/DAY

335,971 AVG GAL/DAY FOR RRAD MAINTENANCE MISSION ONLY

ANAD NATIONAL PRIORITY LIST (NPL) 1989

- **SITE OF SEVEN HAZARDOUS WASTE DISPOSAL TRENCHES**
- **EXHUMATION AND REMOVAL OF 62,000 TONS OF CONTAMINATED EARTH**
- **RCRA CLOSURE IN 1983**
- **THREE SEPARATE TREATMENT FACILITIES FOR PREVENTION OF FUTURE CONTAMINATION**
- **AVERAGE 100,000 GAL/DAY WATER EXTRACTION**
- **\$77M PROGRAMMED FOR GROUNDWATER CONTAMINATION CLEANUP**
- **ESTIMATED COMPLETION - YEAR 2030**

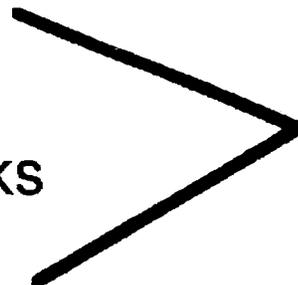
ARMY CANNOT AFFORD RISK OF ADDITIONAL GROUNDWATER CONTAMINATION AT ANAD DUE TO HEAVY INDUSTRIAL WASTE ASSOCIATED WITH KRAD MAINTENANCE WORKLOAD

SOURCE: ANAD INFORMATION BOOKLET
for
BG James E. SHANE,
ROBERT M. MILLER, JR., and
RON HAMNER
10-11 APRIL 1995

ENVIRONMENTAL

- **TOTAL COMPLIANCE WITH ALL PERMITS**

- AIR
- WATER
- HAZ / SOLID WASTES
- UNDERGROUND ST. TANKS
- ASBESTOS
- RADON



**\$40 MIL INVESTED
SINCE 1982**

- **HAZARDOUS WASTE MINIMIZATION**

- 50 % REDUCTION SINCE 1984

- **LED ARMY EFFORTS TO IMPLEMENT TECHNOLOGIES**

- HIGH PRESSURE PARTS WASHERS
- ION VAPOR DISPOSITION OF ALUM.

- **NATIONAL PRIORITY LIST (NPL) IN 1989**

- GROUNDWATER CONTAMINATION
- CLEAN-UP - \$77MIL THROUGH 2030

SITE Z-1 REMEDIATION

- FORMERLY SITE OF SEVEN HAZARDOUS WASTE DISPOSAL TRENCHES.

- LANDFILLING OF HAZARDOUS WASTE CEASED IN SEP 1981.

- GROUNDWATER CONTAMINATION RESULTED IN:
 - PLACEMENT ON NATIONAL PRIORITY LIST

 - EXHUMATION AND REMOVAL
 - 62,000 TONS OF CONTAMINATED EARTH

 - RCRA CLOSURE IN 1983

 - GROUNDWATER TREATMENT

SOURCE: ANAD INFORMATION BOOKLET
FOR
BG JAMES E. SHANE,
ROBERT M. MILLER, JR. and
RON HAMNER
10-11 APRIL 1995

GROUNDWATER TREATMENT FACILITIES (DSN 003)

- DESIGNED TO MITIGATE AND CONTROL "HIGHLY CONTAMINATED POCKETS OF GROUNDWATER".
- THREE SEPARATE TREATMENT FACILITIES.
 - AVERAGE - 100,000 GAL/DAY EXTRACTION
 - TREATMENT: AIR STRIPPING AND CHARCOAL FILTRATION
 - SIXTEEN WITHDRAWAL WELLS IN 1990
 - PUMPING CAPACITY OF 600,000 GAL/DAY

SOURCE: ANAD INFORMATION BOOKLET
for

BG JAMES E. SHANE,
ROBERT M. MILLER, JR., AND
RON HAMNER

10-11 APRIL 1995

GROUNDWATER TREATMENT FACILITIES (DSN 002)

- DEWATERING SYSTEM INSTALLED TO PROTECT METAL FINISH FACILITY (BLDG. 114)

- TREATMENT INITIATED DUE TO GROUNDWATER CONTAMINATION
 - AIR STRIPPING

 - HEXAVALENT CHROMIUM REDUCTION/REMOVAL
 - PERMIT LIMIT - 150 ppb
 - TYPICAL DISCHARGE <4 ppb

 - CAPACITY 1.0M GAL/DAY

SOURCE: ANAD INFORMATION BOOKLET
for

B.G. JAMES E. SHANE,
ROBERT M. MILLER, JR., AND
RON HAMNER

10-11 APRIL 1995

ANAD ELECTRICAL CAPACITY**2 - 44/12.47 KV SUBSTATIONS:**

NICHOLS INDUSTRIAL COMPLEX	9,000 KW
WEST AREA AND RESTRICTED AREA	3,000 KW
TOTAL CAPACITY	12,000 KW

ANAD DEMAND IS APPROXIMATELY 12,000 KW

EXCESS CAPACITY	0 KW
------------------------	-------------

RRAD USAGE	58.5M KW
-------------------	-----------------

**ANAD WILL REQUIRE ADDITIONAL ELECTRICAL SUBSTATIONS
PRIOR TO ACCEPTANCE OF RRAD MAINTENANCE AND DDRI
WORKLOAD**

UTILITIES

- Anniston Army Depot's utilities are in excellent condition.
- The systems are maintained by a combination of in-house labor and contract work.

ELECTRICAL CAPACITY

- 2 - 44/12.47 KV SUBSTATIONS:
 - NICHOLS INDUSTRIAL COMPLEX _____ 14,000 KVA — 9,000 KW
 - WEST AREA AND RESTRICTED AREA _____ 7,000 KVA — 3,000 KW
 - TOTAL KVA AVAILABLE _____ 21,000 KVA — 12,000 KW
- CURRENT DEMAND TO DATE IS APPROXIMATELY 12,000 KW

NATURAL GAS CAPACITY

- ANAD IS SERVICED BY A 6 INCH MAIN
- ANAD HAS USED UP TO 19,000 KCF
- ALAGASCO STATES THEY CAN EASILY MEET OUR DEMANDS
- ALAGASCO BUDGETING FOR FUTURE NEEDS

CENTRAL BOILER PLANT CAPACITY

- 5-50,000 LB PER HOUR COAL FIRED BOILERS
- 1-50,000 LB PER HOUR DUAL FUELED BOILERS
(NATURAL GAS WITH OIL BACKUP)

SOURCE: ANAD INFORMATION BOOKLET
FOR
BC JAMES E. SHANE,
ROBERT M. MILLER, JR., AND
RON HAMNER
10-11 APRIL 1995 60

ANAD BOILER PLANT CAPACITY

5 - 30,000 LB PER HOUR COAL FIRED 150,000 LB PER HR

1 - 50,000 LB PER HOUR GAS/OIL FIRED 50,000

TOTAL CAPACITY 200,000

ANAD USAGE ???

ANAD PROVIDE USAGE FOR ALL UTILITIES EXCEPT STEAM

EXCESS CAPACITY ???

RRAD USAGE	SUMMER	40,000 LB PER HR
	WINTER	120,000

ANAD AIR EMISSIONS PERMITS LIMIT COAL SULFUR CONTENT AND GAS/OIL-FUEL QUANTITIES. INFORMATION ON LIMITS UNKNOWN.

COVERED STORAGE OF COAL AT ANAD IS REQUIRED TO ELIMINATE COAL RUN-OFF. ANAD'S GROUNDWATER CONTAMINATION REQUIRES SIGNIFICANT AND EXPENSIVE ENVIRONMENTAL CONTROLS FOR INDUSTRIAL OPERATIONS. ADDITIONAL WORKLOAD INCREASES THESE CONTROLS AND COSTS.

POTENTIAL FOR SHORTAGE OF EXCESS BOILER PLANT CAPACITY TO ACCEPT ADDITIONAL STEAM REQUIREMENTS OF RRAD MAINTENANCE MISSION WITHOUT FACILITY CONSTRUCTION

UTILITIES

- Anniston Army Depot's utilities are in excellent condition.
- The systems are maintained by a combination of in-house labor and contract work.

ELECTRICAL CAPACITY

- 2 - 44/12.47 KV SUBSTATIONS:
 - NICHOLS INDUSTRIAL COMPLEX _____ 14,000 KVA → 9,000 KW
 - WEST AREA AND RESTRICTED AREA _____ 7,000 KVA → 3,000 KW
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- 5-30,000 LB PER HOUR COAL FIRED BOILERS
- 1-50,000 LB PER HOUR DUAL FUELED BOILERS
(NATURAL GAS WITH OIL BACKUP)

SOURCE: ANAD INFORMATION BOOKLET
for
BC JAMES E. SHANE,
ROBERT M. MILLER, JR., AND
RON HAMNER
10-11 APRIL 1995 60

CHART 10

● COAL STORAGE FACILITY

- 228' LONG X 100' WIDE COVERED FACILITY.
- CAPACITY: APPROXIMATELY 8,000 TONS.
- THIS FACILITY HAS ELIMINATED OPEN STORAGE OF COAL THUS ELIMINATING ENVIRONMENTAL PROBLEMS ASSOCIATED WITH COAL RUN-OFF.

● COAL HANDLING FACILITY

PROVIDES ANAD WITH RAILCAR UNLOADING FACILITY FOR COAL

BENEFITS INCLUDE:

- ABILITY TO RECEIVE COAL BY RAIL.
- FLEXIBILITY OF RECEIVING COAL BY TWO TRANSPORTATION MODES.
- COVERED STORAGE FOR APPROXIMATELY 5,000 TONS.

SOURCE: ANAD INFORMATION BOOKLET
FDR

BY JAMES E. SHANE,
ROBERT M. MILLER, JR. AND
RON HAMNER

10-11 APRIL 1995

... building.
... unpaid expansion payments to the contractor.
... therefore, an additional amount of \$2.4 million will be
... to complete the building. The project was fully
... memorandum stated that an additional \$4.8 million

...
... must be considered in the decision making process.
... approximately \$1.1 million of sunk costs that are related to
... (size work, design, elec substation) equating to
... Distribution Operations Center (DOC). There are
... and termination costs based on only one of the
... preliminary estimate of

...
... is made to June 12, 1995 memorandum, subject as above

Red Hill Defense Depot - New Construction

...

If DLA decides to continue construction of the building, the total cost to complete the building is \$32.6 million. Therefore, an additional \$24.8 million would be needed to complete the building.

Total	\$11.8 million
Previous Total to Suspend	\$10.2 million
Termination Costs @ 20% of Work in Place	1.6 million

If DLA decides to terminate the project after October 1, the costs are as follows.

Total	\$10.2 million
Payments Made to Date	\$ 5.8 million
Additional Materials Purchased	2.0 million
Suspension Cost (\$400K/Mo.)	2.4 million

The following information is based on an April 1 - October 1 suspension period.

I contacted the Army Corps of Engineers to determine the suspension and termination costs versus the costs to complete the DLA building currently being constructed at the Red River Defense Distribution Depot. DLA suspended the construction of the building on April 22. An Army Corps of Engineers official provided me with the following information. The official stated that the suspension and termination costs are estimates as things have not been finalized with the contractor.

Memo

To: Commissioner Benjamin Montoya

From: Marilyn K. Wasleski, Senior Analyst, Interagency Team

Thru: Bob Cook, Team Leader - Interagency
Ben Borden, Director - Review and Analysis

Date: June 12, 1995

Subj: Red River Defense Distribution Depot - New Construction

ATTACH #2

ITEM	\$ MILLION
Original CDC	56.7
Sitework	
Elec Substation	.4
DOC Design	2.4
DOC Sitework	.6
Current DOC Contract (Hyman Construction)	Not Available
Sunk costs, suspension costs and Corps of Engineers costs.	
TOTAL (Excluding Current Contract Costs)	\$10.1 MILLION

DOC PROJECT
SUNK COSTS
(PUBLIC INFORMATION)

15 May 95

Exarkana Gazette

JUNE 12, 1990

Cutbacks cost RRAD Millions to be lost

By JIM HARRIS
Of the Gazette Staff

Not building the Central Distribution Center at Red River Army Depot will cost between \$26.4-\$39.3 million, according to U.S. Army figures.

The project cannot be stopped without spending the money.

The center, which would have modernized RRAD's supply mission, was under construction until the Defense Department announced cutbacks in military spending earlier this year. The center was cut from the military's spending plans.

The original cost estimate on the CDC was about \$160 million, but the latest Army estimate - from documents which show how much the Army is saving from cutbacks - places the cost at \$182 million.

At the request of U.S. Rep. Jim Chapman, D-Sulphur Springs, the U.S. Army Materiel Command, which oversees the depot system, provided the estimates on the costs of halting construction.

Estimates of those costs were provided to Chapman in a letter by Col. Derald E. Willis, who is chief of the Army's Congressional Liaison Office.

The costs of not finishing the CDC are broken down into four categories: sunk costs, useable projects, contract terminations and future expenses.

The "sunk costs," or those that cannot be recovered, include \$9.6 million for the design of the CDC, \$6.7 million for site preparation and \$600,000 in telecommunications costs.

The useable projects, or those for which other applications can be found,

include \$700,000 for the steam line, \$400,000 for an electrical substation and \$1 million for the CDC boiler.

Two estimates are provided for the cost of terminating existing contracts to build the center. The low estimate is \$5.7 million and the high estimate is \$18.6 million. The exact cost of breaking the construction contracts has not been determined, according to AMC's information.

The future expenses include \$1 million for site restoration - the site currently is a mound of dirt.

The AMC also estimates it will cost \$700,000 in termination expenses for the U.S. Army Corps of Engineers to leave the project.

"The total of the above data indicates CDC termination costs can range from a low of \$26.4 million to a high of \$39.3 million. Final costs are contingent upon settlement of contractor claims and will not be known for several months," Willis wrote in the letter.

*NOTE: Items circled are being realized for the DDC project.

*include \$700,000 for the steam line, \$400,000 for an electrical substation and \$1 million for the CDC boiler.

*the design of the CDC, \$6.7 million for site preparation and \$600,000 in telecommunications costs.

Sunday
August 16, 1992

Design funds released for RRAD project

Kevin McPherson
Tribune Staff

WASHINGTON — The long-

awarded \$39 million Central

Distribution Center at Red River

Army Depot is in all likelihood

headed for construction in late

1993 or early 1994 after the

Department of Defense released

\$27.4 million in design funds

Thursday.

The DOD's Comptroller, Sean

O'Keefe, announced the move

last week, ending years of specu-

lation that continuing military

budget cuts would include the

CDC.

Earlier this year Congress

rebuffed an attempt by the De-

fense Department and President

Bush to rescind \$49 million,

which would have killed the

project.

With the release of funds, the

Defense Logistics Agency will

issue a directive to the Fort

Worth district office of the U.S.

Army Corps of Engineers, which

will solicit design contract bids.

"We have worked and waited

a long time for the Department of

Defense to act on the law passed

by Congress to build the new

facility," said U.S. Rep. Jim

Chapman, D-Sulphur Springs. "I

think the Congress, Red River

Army Depot, Defense Logistics

Agency and now the Department

of Defense are on the same side

for this critical project."

How long the design phase

will take is not known, but it

could be as quick as six months or

as long as 10 months. Construc-

tion start-up will also depend

upon when the design contract is

awarded

Construction is expected to

take approximately two years,

thus putting completion of the

facility around early 1996.

"I am pleased the Defense

Department recognizes the need

for this new supply facility at

RRAD," said U.S. Sen. Phil

Gramm, R-Texas. "I have always

felt that if given the chance, Red

River could stand on its own

merits."

While Chapman credited DLA

director Vice Admiral Edward

Straw, Gramm had praise for

Assistant Defense Secretary for

Production and Logistics Colin

McMillan. He said the request

for the design funds release was

forwarded from the DLA through

his office to the Defense Depart-

ment Comptroller.

Gramm added that McMillan

said the actual cost of equipment

for the new state-of-the-art facility

it would be \$25 million.

Chapman said, "We can look

forward to significant invest-

ment by the Department of De-

fense at Red River Army Depot.

This represents DOD's commit-

ment to RRAD's unique mission

for the nation's defense in the

21st Century."

He added that RRAD employ-

ees had "earned the support of

the DLA and Department of

Defense" and will represent a

"solid investment" in the nation's

defense.

Center's fate lies in Washington

■ Congressmen react 2A

space. Due to a shortage of space, we currently have material stored at Savannah Army Depot, Granite City and Lone Star Army Depot.

A large portion of the material will be repositioned at Red River as space becomes available. Red River has been identified as one of the major receipt depots for European closures."

Imbert and U.S. Rep. Jim Chapman, D-Texas, say the center's fate is now up to the Department of Defense.

"I think we've addressed the DOD IG's comments and the center is proceeding. Right now, they are removing the dirt," Imbert said.

In July, a \$600,000 contract was awarded to an Tulsa company to move dirt.

A letter to Defense Secretary Les Aspin, Chapman said about \$8 million has been invested in site preparation, which includes dirt work, stream lines and an electrical substation. Included

was a design contract of \$1.7 million to HFB Associates of Oklahoma City.

"We're just going to go ahead and proceed as planned," Imbert said. "We have not started any work, and we have no plans to right now," he said.

by LISA BOHR
On the far right

Despite an attempt by the Department of Defense's inspector general to pull the plug on the \$49 million distribution center at Red River Army Depot, Defense Logistics Agency spokesman

In September, an audit was compiled by the Office of the Inspector General that said \$58 million could be saved within the agency if all work on the center were suspended.

The report heavily relied upon 1990 audits and Government Accounting Office reports. Those reports were used to shut down the \$211 million central distribution center in 1991.

The Office of the Comptroller of DLA disagreed with the recommendations made to suspend all work on the center, but agreed some of DLA's economic analysis reports may have been outdated.

Nevertheless, the distribution center is defended on economic grounds.

"We feel it's justified for the forecasted workload," said Doug Imbert, DLA spokesman. "The agency was able to use the negative 1991 GAO report, centering around inappropriate storage of goods and subsequent thefts, to its favor."

It argues, "Our storage plan required the movement of that material to covered storage

COMPARISON OF SOIL SURVEYS
OF
BOWIE COUNTY TEXAS
AND
CALHOUN COUNTY ALABAMA

Characteristics of Soils in areas
suitable for storage or construction
at the Red River Army Depot (RRAD) and
the Defense Distribution Depot Red River (DDRT)
in Bowie County, Texas.

This area is primarily made up of three soil types. They are Annona loam, Sawyer silt loam, and Wrightsville-Rodessa complex. All three of these soil types are characterized by *extremely slow permeability*.

Characteristics of Soils in areas
suitable for storage or construction
at the Anniston Army Depot (ANAD) and
the Defense Distribution Depot Anniston (DDAA)
in Calhoun County, Alabama.

This area is primarily made up of five soil types. They are Clarksville loam, Clarksville-Fullerton loams, Decatur & Cumberland loams, Dewey loams, and Fullerton loams. All five of these soil types are characterized by *moderate to rapid permeability*. Although there are several subdivisions of soil properties in each of the five mentioned soil types, they all have the same permeability rating.

Sources: Soil Survey, Calhoun County Alabama Issued September 1961

Soil Survey, Bowie County Texas Issued October 1980

SUPPLY DISTRIBUTION TO ARMY FORCES

Impact of Closing Red River

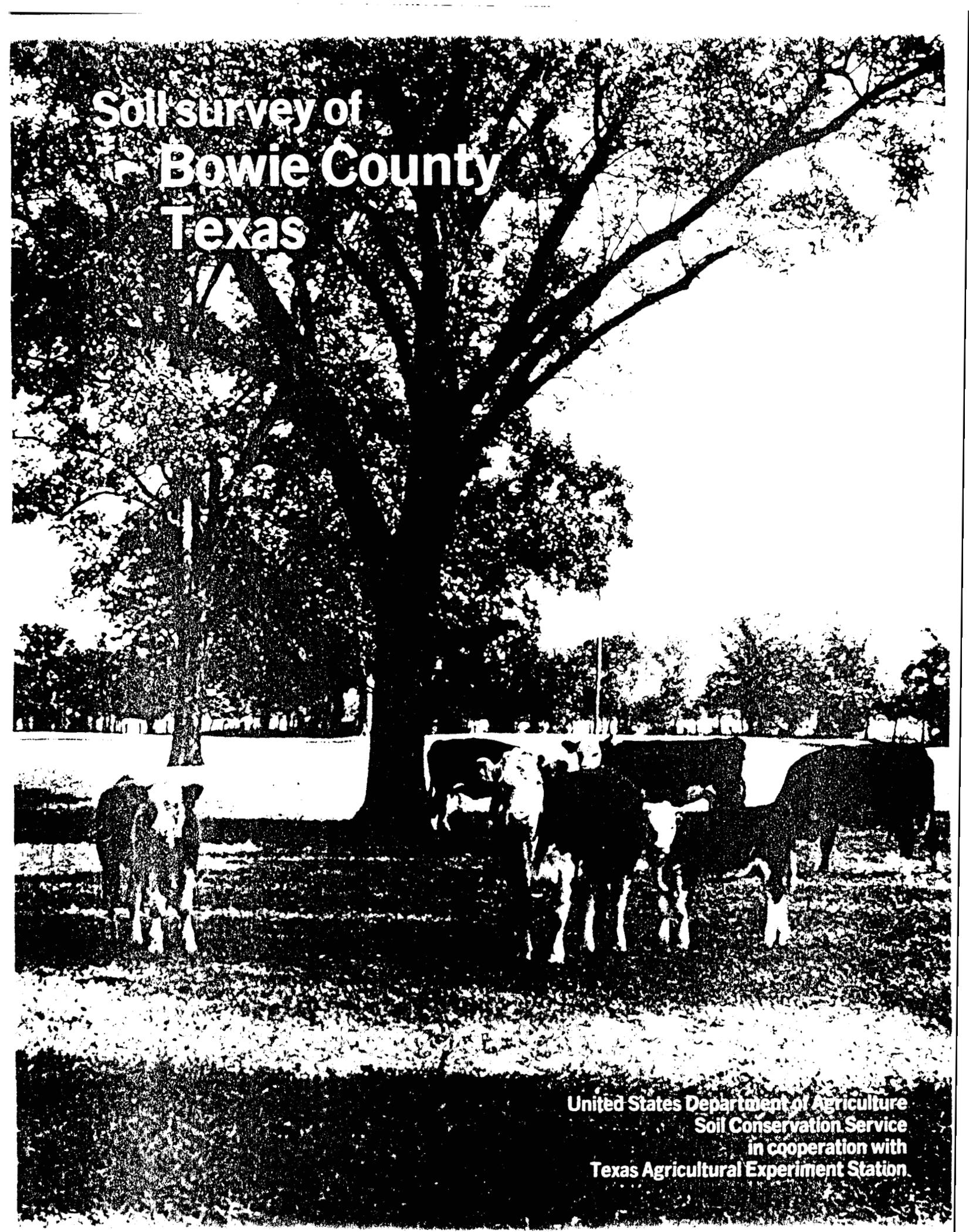
PAST

- ARMY AREA ORIENTED DEPOTS
 - Based On Distribution Of Army Forces
 - West & Pacific - Sharpe (San Joaquin), CA
 - Central - Red River, TX
 - East & Europe - New Cumberland (Susquehanna), PA
- FORCE DISTRIBUTION PATTERNS REMAIN
 - Some Shift From Europe To Central US

PROPOSED

- CLOSE RED RIVER (DDRT)
 - DLA Policy To Move Stock To San Joaquin or Susquehanna
 - Stand Alone Depots
 - Collocated Depots Do Not Have Major Distribution Mission
 - Stock NOT Moved to San Antonio, Corpus Christi, Oklahoma City or Anniston
 - Vehicles Moved To ?????
 - Hardstand Requirements
 - Regional Central Distribution Support Lost
- DLA DISTRIBUTION FACILITIES
 - West & Pacific - San Joaquin
 - Central - ?????
 - East & Europe - Susquehanna

Document Separator



**Soil survey of
Bowie County
Texas**

**United States Department of Agriculture
Soil Conservation Service
in cooperation with
Texas Agricultural Experiment Station**



(Join sheet 32)

(Join sheet 42)

(Join sheet 50)

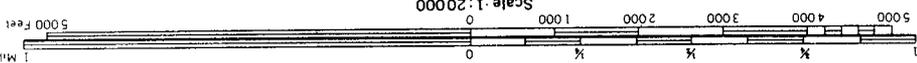




Figure 5.—Large round rolls of Pensacola bahiagrass hay on Alusa loam.

This soil is poorly suited to crops. Frequent flooding and poor drainage are the main limiting features.

This soil is poorly suited to most urban and recreational development. Frequent flooding and wetness are the main limiting features.

This soil is in capability subclass Vw; woodland group 2w.

4—Annona loam, 1 to 3 percent slopes. This gently sloping soil is on uplands. Slopes average about 2 percent. Soil areas are broad and irregular in shape. They range from 20 to 500 acres in size and average about 200 acres.

Typically, this soil has a surface layer of very dark grayish brown loam about 2 inches thick. Below this is brown loam about 10 inches thick. The subsoil extends to a depth of 80 inches or more. It is clay that is mottled in shades of red, brown, and gray in the upper part and is grayish brown in the lower part. This soil is slightly acid to very strongly acid.

This Annona soil is somewhat poorly drained. Runoff is slow, and permeability is very slow. Available water capacity is high. The rooting zone is deep, but the clayey subsoil restricts the movement of roots, water, and air. The erosion hazard is moderate.

Included with this soil in mapping are small areas of Adaton, Alusa, and Sawyer soils. Also included on mounds are a few areas of soils that have a thick surface layer. Included soils make up less than 15 percent of any mapped area.

This Annona soil is used mostly for pasture and woodland.

This soil is moderately well suited to pasture. Proper fertilizing, the addition of lime, and proper grazing are necessary to produce moderate yields of improved grasses. Improved bermudagrass, bahiagrass, and fescue are adapted to this soil as well as white and arrowleaf clovers.

This soil is moderately well suited to crops such as soybeans, grain sorghum, and corn. The hazard of erosion and low fertility are the main limiting features. Crop residue and cover crops left on the soil surface help maintain soil tilth and organic matter content. Erosion control is needed. The addition of lime and a complete fertilizer increases yields.

The soil is moderately well suited to trees such as loblolly pine, red oak, and sweetgum. Proper woodland management, such as selective cutting, removal of undesirable trees and shrubs, and protection from fire, increases timber yields.

This soil is poorly suited to most urban development. High shrink-swell and wetness are the main limiting features.

This soil is well suited to paths and trails, but it is poorly suited to picnic areas and campgrounds because of very slow permeability.

This soil is in capability subclass IIIe; woodland group 4c.

5—Ashford clay. This nearly level soil is in broad, flat areas of uplands. Soil areas are irregular in shape. They range from 50 to over 1,000 acres and average about 300 acres.

Typically, the surface layer is light olive gray, slightly acid clay about 4 inches thick. The subsoil extends to a depth of 80 inches or more. It is gray, very strongly acid clay that is mottled with reds and brown in the upper part and is olive gray, strongly acid clay in the lower part.

This soil is poorly drained. A high water table is at or near the surface during the cool season. Runoff and permeability are very slow. Available water capacity is high. The rooting zone is deep, but the movement of roots, water, and air is restricted by the clayey texture. The erosion hazard is slight.

Included with this soil in mapping are small areas of Wrightsville and Bryarly soils. These included soils make up about 10 percent of any mapped area.

This Ashford soil is used mainly for hardwood forest and wildlife habitat, but a small percent is used for crops and pasture.

This soil is moderately well suited to pasture and to plants such as fescue and bahiagrass. Proper fertilization and proper grazing increase yields.

This soil is moderately well suited to hardwood trees such as southern red oak and water oak. Proper woodland management, such as control of undesirable hardwood, selective harvesting, and fire protection, is needed to increase timber yields.

This soil is moderately well suited to crops. Soybeans is one of the main crops. Poor drainage, very slow permeability, and clay texture are the main limiting features. The addition of lime and a complete fertilizer is needed for good yields. Cover crops and plant residue left on the surface of the soil help to maintain organic matter content and soil tilth. A drainage system is needed for best yields.

This soil is poorly suited to urban and recreational development. Wetness and high shrink-swell are the main limitations. Low strength is a limitation for local roads and streets.

This soil is in capability subclass IIIw; woodland group 3w.

6—Billyhaw clay, 0 to 1 percent slopes. This nearly level soil is on flood plains. Soil areas are irregular in shape. They range from 100 to over 1,000 acres and average about 600 acres.

Typically, the surface layer is neutral clay about 25 inches thick. It is dark brown in the upper part and dark

reddish brown in the lower part. Below this, to a depth of 57 inches, is reddish brown, calcareous, moderately alkaline clay. The underlying material to a depth of 75 inches or more is reddish brown, calcareous, moderately alkaline silt loam that contains few thin strata of reddish brown silty clay loam.

This soil is somewhat poorly drained. A water table is near the surface for brief periods during the cool season. Runoff is slow to very slow, and permeability is very slow. Available water capacity is high. The rooting zone is deep, but the movement of water, air, and plant roots is restricted by the clayey texture throughout. The erosion hazard is slight. This soil shrinks and cracks when dry (fig. 6).

Included with this soil in mapping are small areas of

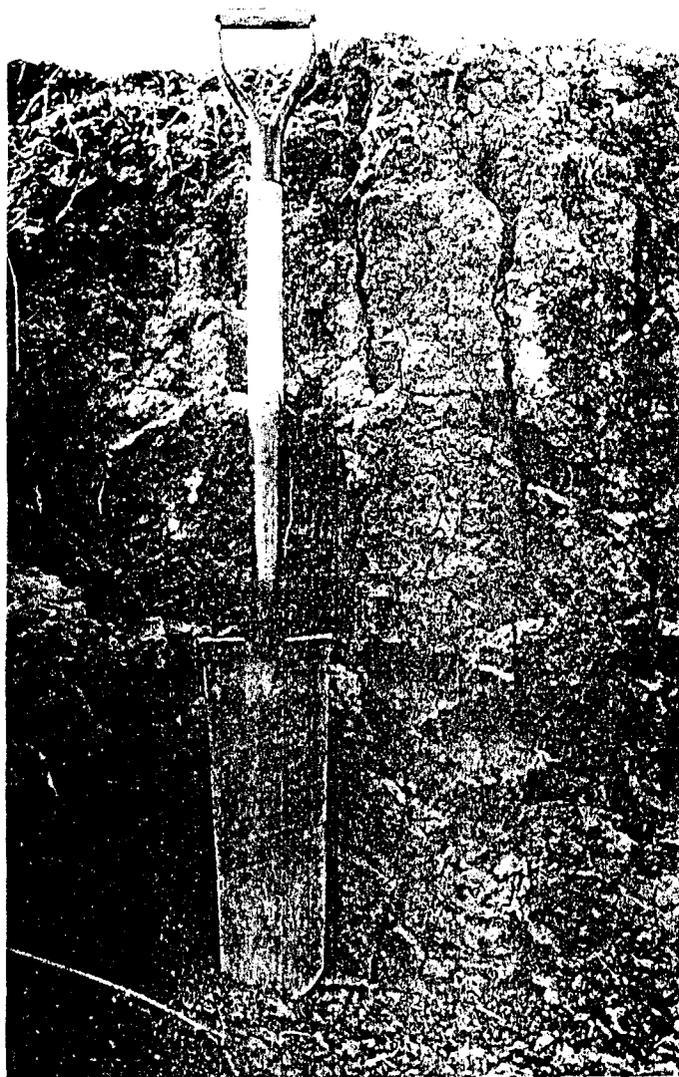


Figure 6.—Profile of Billyhaw clay, 0 to 1 percent slopes. Note large cracks extending deep into the profile.

production. Bahiagrass, bermudagrass, crimson clover, and arrowleaf clover are the main plants.

These soils are moderately well suited to loblolly pine, shortleaf pine, and eastern redcedar. Woodland management, such as selective cutting, removal of undesirable trees and shrubs, and protection from fire, increases yields.

This soil is poorly suited to crops. Droughtiness, the erosion hazard, the high gravel content, and low fertility are the main limiting features. However, the addition of lime and fertilizers will increase production. Terraces and diversions help control soil washing. Crop residue left on the soil surface helps to maintain organic matter content.

This soil is well suited to most urban development. Small stones or gravel are limitations for shallow excavations. In some areas, slope is a limitation for small commercial buildings.

This soil is well suited to recreational development except for playgrounds, which are limited by slope and small stones or gravel.

This soil is in capability subclass IIIe; woodland group 4f.

34—Saffell-Urban land complex, 3 to 8 percent slopes. This deep, gently sloping and sloping complex is on forested convex upland terraces. Slopes average about 5 percent. Areas are long and narrow. They average about 75 acres. This complex is about 45 percent Saffell soils, about 35 percent Urban land, and about 20 percent other soils. Areas of these soils and Urban land are so intermingled that they could not be shown separately at the scale selected for mapping. Typically, the Saffell soil has a slightly acid gravelly sandy loam surface layer about 14 inches thick. It is brown in the upper part and yellowish red in the lower part. The subsoil to a depth of 80 inches or more is red, very strongly acid gravelly sandy clay loam.

Cuts for leveling purposes have removed the gravelly sandy loam surface layer and exposed the more clayey subsoil in some places. The Saffell soils are well drained and moderately permeable. The available water capacity is low. The erosion hazard is moderate.

Urban land is occupied mostly by commercial establishments and their paved parking lots. In places there are single-unit dwellings, streets, driveways, sidewalks, and patios.

Information on the use of these areas for urban development is contained in the sections on engineering and recreation.

This complex is not assigned to a capability subclass or woodland group.

35—Sardis silt loam, frequently flooded. This nearly level soil is on flood plains along the major creeks and drainageways. Slopes are less than 1 percent. Soil areas are long and narrow and parallel to streams. They range from 50 to several hundred acres and average about 200 acres.

Typically, the surface layer is brown silt loam about 9 inches thick. The subsoil extends to a depth of 62 inches or more. In the upper 41 inches, it is silt loam that is yellowish brown in the upper part and brown in the lower part. The lower part of the subsoil is pale brown fine sandy loam. Typically, this soil is neutral in the upper part and grades to very strongly acid in the lower part.

This soil is somewhat poorly drained. It floods briefly two to four times a year. A water table is 1 to 3 feet below the surface during winter and spring. Runoff is slow, and permeability is moderate. The available water capacity is high. The rooting zone is deep, and roots, water, and air move easily through the soil. The erosion hazard is slight.

Included with this soil in mapping are small areas of Amy and Thenas soils. The included soils make up less than 30 percent of any mapped area.

This Sardis soil is used mainly for woodland and pasture.

This soil is moderately well suited to pasture. The main forage plants are bermudagrass, fescue, bahiagrass, crimson clover, and arrowleaf clover. Frequent flooding and wetness limit yields to some extent. Proper grazing and the addition of lime and fertilizers increase yields.

This soil is well suited to trees such as loblolly pine, yellow-poplar, water oak, and sweetgum. Proper woodland management, such as selective cutting, removal of undesirable trees and shrubs, and protection from fire, increases timber production.

This soil is not recommended for cultivation because of frequent flooding.

This soil is poorly suited to urban and recreational development because of the hazard of flooding.

This soil is in capability subclass Vw; woodland group 1w.

36—Sawyer silt loam, 0 to 3 percent slopes. This nearly level and gently sloping soil is on uplands. Areas are broad and irregular in shape. They range from 20 to 500 acres and average about 100 acres.

Typically, the surface layer is dark grayish brown silt loam about 6 inches thick. The subsoil extends to a depth of 80 inches or more. It is yellowish brown silty clay loam in the upper 9 inches, yellowish brown clay loam that has grayish and reddish mottles in the next 11 inches, and mottled gray, red, and strong brown clay in the lower part. Typically, this soil is slightly acid in the upper part and grades to very strongly acid in the lower part.

This soil is moderately well drained. Runoff and permeability are slow. Available water capacity is high. The rooting zone is deep, but the clayey texture in the lower part slows the movement of roots, water, and air. The erosion hazard is moderate.

Included with this soil in mapping are a few areas of Adaton and Eylau soils. Some areas have small mounds. Included soils make up 10 to 20 percent of the area.

These Sawyer soils are used mostly for pasture. A few areas are used for woodland and crops.

This soil is well suited to pasture plants such as bermudagrass, dallisgrass, bahiagrass, ryegrass, arrowleaf clover, and crested clover. Proper grazing and the addition of lime and fertilizers increase production.

This soil is well suited to trees such as loblolly and slash pine. Woodland management, such as selective cutting, removal of undesirable trees and shrubs, and control of fire, increases timber production (fig. 9).

This soil is moderately well suited to crops. The main crops are soybeans, grain sorghum, corn, and small

grains. Low fertility and the erosion hazard are the main limiting features. Terraces and diversions decrease the amount of soil washing. Crop residue left on the soil surface increases infiltration and maintains organic matter content. Lime and fertilizers increase yields.

This soil is poorly suited to most urban development. High shrink-swell and high clay content are the main limiting features. Low strength is also a limitation for roads and streets.

This soil is well suited to recreational developments



Fig. 9. Mature hardwood forest on Sawyer silt loam, 0 to 3 percent slopes.

such as picnic areas and paths and trails. It is moderately well suited to camp areas and playgrounds. Slow permeability and slope are limitations.

This soil is in capability subclass IIe; woodland group 2w.

37—Sawyer-Urban land complex, 0 to 3 percent slopes. This nearly level and gently sloping soil is on upland interstream divides. Slopes average about 2 percent. Most areas are broad and irregular in shape. They range from 20 to several hundred acres and average about 50 acres.

This complex is about 60 percent Sawyer soils, 30 percent Urban land, and 10 percent other soils. Areas of these soils and Urban land are so intermingled that they could not be shown separately at the scale selected for mapping.

Typically, the Sawyer soil has a surface layer of dark grayish brown silt loam about 6 inches thick. The subsoil extends to a depth of 80 inches or more. It is yellowish brown silty clay loam that has grayish and reddish mottles in the upper 26 inches. Below this is gray, red, and strong brown, very strongly acid clay. The upper layers of most of the soil have been altered by cutting and filling.

Sawyer soils are moderately well drained. Runoff is slow, and permeability is slow. Available water capacity is high. The rooting zone is deep, but the clayey texture in the lower part slows the movement of water, air, and plant roots. The erosion hazard is moderate.

Structures on Urban land are mostly commercial buildings, streets, parking lots, and residences.

Included with this complex in mapping are small areas of Eylau and Ruston soils. The included soils make up about 10 percent of each mapped area.

The main soil characteristics that affect construction are high shrink-swell and wetness. Low strength limits use for streets and roads. Information about the use of these soils for urban development is contained in the sections on engineering and recreation.

This complex is not assigned to a capability subclass or woodland group.

38—Severn very fine sandy loam. This nearly level soil is on flood plains that rarely flood. Soil areas are long and narrow and parallel the river. They range from 100 to over 1,000 acres and average about 300 acres.

Typically, this soil has a surface layer of reddish brown very fine sandy loam about 8 inches thick. The next layer, to a depth of about 42 inches, is yellowish red very fine sandy loam. Below this to a depth of 65 inches or more is reddish brown, moderately alkaline silty clay loam stratified with other textures. Typically, this soil is moderately alkaline throughout.

This soil is well drained. It is rarely flooded. Runoff is slow, and permeability is moderately rapid. Available

water capacity is high. The rooting zone is deep, and roots, water, and air move easily through the soil. The erosion hazard is slight.

Included with this soil in mapping are small areas of Severn silty clay loam and Kiomatia soils. Also included are areas of a soil that has a thin clayey horizon on the surface and stratified sandy horizons below. These soils make up less than about 20 percent of the mapped acreage.

Most of this Severn soil is used for crops.

This soil is well suited to pasture. Bermudagrass, white clover, and alfalfa are common pasture and hay plants. Proper grazing and fertilization increase production.

This soil is well suited to trees such as eastern cottonwood, black walnut, pecan, and sweetgum. Woodland management, such as selective cutting, removal of undesirable trees and shrubs, and protection from fire, increases timber production.

This soil is well suited to soybeans, grain sorghum, cotton, and corn. Crop residue left on the soil surface helps to maintain organic matter content. Fertilizers increase yields.

This soil is moderately well suited to urban development. Limitations are flooding and low strength. Low strength is particularly a limitation for roads and streets.

This soil is well suited to recreational development.

This soil is in capability class I; woodland group 2o.

39—Severn silty clay loam. This nearly level soil is on flood plains that rarely flood. Areas are circular or long and narrow. They range from 10 to 100 acres and average about 50 acres.

Typically, the surface layer is dark reddish brown silty clay loam about 8 inches thick. The underlying material extends to a depth of 72 inches or more. It is silt loam that is reddish brown in the upper part, yellowish red in the middle part, and reddish brown in the lower part. This soil is typically calcareous throughout.

This soil is well drained. Runoff is slow, and permeability is moderately rapid. Available water capacity is high. The rooting zone is deep, and roots, water, and air move easily through the soil. The erosion hazard is slight.

Included with this soil in mapping are small areas of Billyhaw clay, Severn very fine sandy loam, and Redlake clay. Included soils make up less than 20 percent of any mapped area.

Most of this Severn soil is used for crops. Minor acreages are in pasture and woodland.

This soil is well suited to pasture. Bermudagrass, white clover, and alfalfa, are the main pasture plants. Proper grazing and the addition of fertilizers increase production.

This soil is well suited to trees such as eastern

This Woodtell soil is used for pasture and woodland.

This soil is moderately well suited to pasture. The main forage crops are bermudagrass, bahiagrass, crimson clover, and arrowleaf clover. Proper grazing and the addition of lime and fertilizers can increase yields.

This soil is moderately well suited to trees such as loblolly pine and shortleaf pine. Woodland management, such as selective cutting, removal of undesirable trees and shrubs, and protection from fire, increases timber production.

This soil is not recommended for cultivation because of slope and the hazard of erosion.

This soil is poorly suited to urban development. The main limitations are the high shrink-swell, high clay content, and low strength. Low strength is a limitation for local roads and streets.

This soil is well suited to recreational development such as paths and trails. It is moderately well suited to picnic areas. Limitations for camp areas and playgrounds are very slow permeability and slope.

This soil is in capability subclass VIe; woodland group 4c.

47—Woodtell gravelly sandy loam, 3 to 8 percent slopes. This gently sloping soil is on narrow convex ridges. Slopes average about 5 percent. Soil areas are oblong. They range from 5 to about 25 acres and average about 15 acres.

Typically, this soil has a surface layer of brownish gravelly sandy loam about 12 inches thick. The subsoil extends to a depth of 44 inches. It is red clay in the upper part and red clay loam in the lower part. Gray mottles are throughout. The underlying material to a depth of 70 inches or more is red sandy clay loam. This soil is typically strongly acid in the upper part and very strongly acid in the lower part.

This soil is moderately well drained. Runoff is medium, and permeability is very slow. Available water capacity is medium. The rooting zone is deep, but the clayey subsoil slows the movement of roots, water, and air. The erosion hazard is moderate.

Included with this soil in mapping are small areas of soils like the Woodtell soil that has loamy subsoil and small areas of the gravelly Saffell soils. The included soils make up less than 15 percent of the mapped acreage.

This Woodtell soil is used for pasture and woodland. The surface layer has been removed from much of this soil for gravel.

This soil is moderately well suited to pasture. Bermudagrass, bahiagrass, crimson clover, and arrowleaf clover are the main forage plants. Proper grazing, the addition of lime, and heavy applications of fertilizers can increase yields.

This soil is moderately well suited to loblolly and slash pine. Woodland management, such as selective cutting, removal of undesirable trees and shrubs, and protection from fire, increases timber yields.

This soil is poorly suited to crops. Crops can grow successfully, however, with intensive management that includes erosion control, proper management of crop residue, and recommended applications of lime and fertilizers. The main crops are corn and soybeans.

This soil is poorly suited to urban development. The main limitation is the high shrink-swell, and low strength is a limitation for roads and streets.

This soil is well suited to recreational development such as paths and trails. Very slow permeability and slope are limitations for camp areas, picnic areas, and playgrounds.

This soil is in capability subclass IVe; woodland group 4c.

48—Wrightsville-Rodessa complex. This nearly level complex is on broad, upland terraces. Slopes average less than 1 percent. Soil areas are irregular in shape. They range from 10 to over 1,000 acres and average about 300 acres.

This complex is characterized by broad flats of Wrightsville silt loam and circular mounds of Rodessa loam in a random pattern. The mounds of Rodessa soil are so small and the soil pattern is so intricate that the soils could not be shown separately at the scale selected for mapping. The mounds are 2 to 3 feet high, 60 to 120 feet in diameter, and 100 to 200 feet apart.

This complex is about 75 percent Wrightsville soils, 15 percent Rodessa soils, and 10 percent other soils.

Typically, the Wrightsville soil has a surface layer of brown, strongly acid silt loam about 4 inches thick. The next layer, which extends to a depth of 16 inches, is light brownish gray, very strongly acid silt loam. The subsoil to a depth of 80 inches or more is light brownish gray, very strongly acid clay that has strong brown mottles and vertical streaks of uncoated sand and silt.

Wrightsville soils are poorly drained. A water table is at or near the soil surface during the winter and spring. Water stands on the surface for 2 or 3 weeks during the cool season. Runoff is slow, and permeability is very slow. The available water capacity is high. The rooting zone is deep, but the excess water and clayey subsoil restrict the movement of air and plant roots. The erosion hazard is slight.

Typically, the Rodessa soil has a surface layer of brownish loam about 14 inches thick. The subsoil extends to a depth of 70 inches or more. It is yellowish brown loam to a depth of 26 inches. Below this to a depth of about 42 inches, it is clay loam that is yellowish brown in the upper part and pale brown in the lower part. It has common tongues and streaks of uncoated sand and silt and has reddish, brownish, and grayish mottles. The lower part of the subsoil is mottled gray and red clay.

Rodessa soils are somewhat poorly drained. A water table is 2 to 3 feet below the surface during the cool season. Runoff is slow, and permeability is very slow. Available water capacity is high. The rooting zone is deep. The erosion hazard is slight.

Included with this complex in mapping are small spots of Adaton, Ashford, and Sawyer soils. Included soils make up less than 10 percent of the mapped acreage.

Most areas of Wrightsville-Rodessa complex are used for woodland and wildlife habitat. A few areas are used for rice and soybeans and for pasture.

These soils are moderately well suited to pasture plants such as bahiagrass, dallisgrass, and tall fescue. Crimson clover and arrowleaf clover will grow on the Rodessa part of the complex. A drainage system will remove excess water and provide a better environment for pasture plants. Proper grazing and complete fertilizers can increase forage yields.

These soils are moderately well suited to loblolly pine, water oak, willow oak, and sweetgum. Woodland management, such as selective cutting, removal of undesirable trees and shrubs, and protection from fire, increases timber yields.

The soils in this complex, are moderately well suited to crops such as soybeans and rice (fig. 11). Wetness, very slow permeability, low fertility, and droughtiness are the main limiting features. A drainage system is needed to remove excess water. Crop residue left on the soil surface improves infiltration and helps to maintain organic matter content. The addition of lime and a complete fertilizer can increase yields.

These soils are poorly suited to urban development. The main limitations are wetness, low strength, and high shrink-swell characteristics. Low strength limits use for roads and streets.

These soil are poorly suited to most recreational developments because of very slow permeability. However, they are well suited to paths and trails.

This complex is in capability subclass IIIw; woodland group 3w.

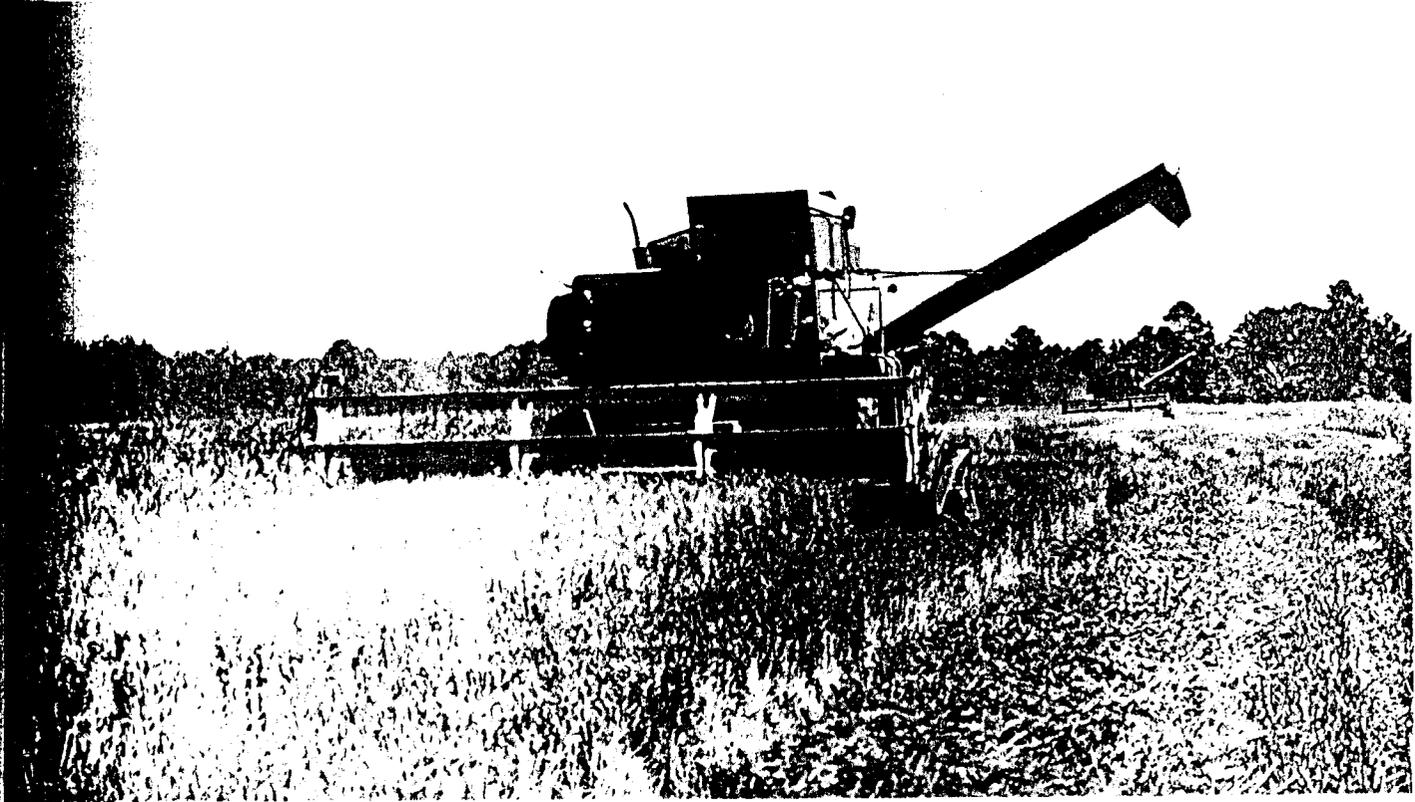


Figure 11 —Combining rice on Wrightsville-Rodessa complex.

TABLE 13.--SANITARY FACILITIES

[Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," "good," "fair," and other terms. Absence of an entry indicates that the soil was not rated]

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
1:*					
Adaton-----	Severe: percs slowly, wetness.	Slight-----	Severe: wetness, too clayey.	Severe: wetness.	Poor: wetness, too clayey.
Muskogee-----	Severe: percs slowly, wetness.	Slight-----	Severe: too clayey, wetness.	Severe: wetness.	Fair: thin layer, too clayey.
2-----					
Alusa-----	Severe: percs slowly, wetness.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: wetness, too clayey, hard to pack.
3-----					
Amy-----	Severe: floods, percs slowly, wetness.	Severe: floods.	Severe: floods, wetness.	Severe: floods, wetness.	Poor: wetness.
4-----					
Annona-----	Severe: percs slowly, wetness.	Moderate: slope.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey.
5-----					
Ashford-----	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, wetness.
6-----					
Billyhaw-----	Severe: percs slowly, wetness.	Slight-----	Severe: too clayey, wetness.	Severe: wetness.	Poor: too clayey, wetness.
7-----					
Billyhaw-----	Severe: percs slowly, wetness.	Moderate: slope.	Severe: too clayey, wetness.	Severe: wetness.	Poor: too clayey, wetness.
8-----					
Blevins-----	Moderate: percs slowly.	Moderate: slope, percs slowly.	Slight-----	Slight-----	Good.
9-----					
Bryarly-----	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight-----	Poor: too clayey.
10-----					
Dardanelle-----	Moderate: percs slowly.	Moderate: seepage.	Moderate: too clayey.	Slight-----	Good.
11-----					
Darden-----	Slight-----	Severe: seepage.	Severe: seepage.	Severe: seepage.	Fair: too sandy.
12-----					
Darden-----	Moderate: slope.	Severe: seepage, slope.	Severe: seepage.	Severe: seepage.	Fair: too sandy, slope.
13-----					
Eylau-----	Severe: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.	Moderate: wetness.	Fair: too clayey.
14:*					
Eylau-----	Severe: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.	Moderate: wetness.	Fair: too clayey.
Urban land.					

See footnote at end of table.

TABLE 13.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
33----- Saffell	Slight-----	Moderate: slope, seepage.	Slight-----	Slight-----	Poor: small stones.
34:* Saffell----- Urban land.	Slight-----	Moderate: slope, seepage.	Slight-----	Slight-----	Poor: small stones.
35----- Sardis	Severe: floods, wetness.	Severe: wetness, floods.	Severe: floods, wetness.	Severe: floods, wetness.	Good.
36----- Sawyer	Severe: percs slowly.	Slight-----	Severe: too clayey.	Slight-----	Fair: too clayey, thin layer.
37:* Sawyer----- Urban land.	Severe: percs slowly.	Slight-----	Severe: too clayey.	Slight-----	Fair: too clayey, thin layer.
38, 39----- Severn	Moderate: floods.	Severe: seepage, floods.	Severe: seepage.	Severe: seepage.	Good.
40----- Smithdale	Moderate: slope.	Severe: seepage, slope.	Slight-----	Moderate: slope.	Fair: slope.
41----- Texark	Severe: percs slowly, floods, wetness.	Slight-----	Severe: floods, too clayey, wetness.	Severe: floods, wetness.	Poor: too clayey, wetness.
42----- Thenas	Severe: floods, wetness.	Severe: floods.	Severe: floods.	Severe: floods.	Fair: wetness.
43.* Udorthents					
44----- Vesey	Slight-----	Severe: seepage.	Severe: seepage.	Severe: seepage.	Fair: too clayey.
45----- Woodtell	Severe: percs slowly, wetness.	Moderate: slope.	Severe: too clayey, wetness.	Severe: wetness.	Poor: thin layer.
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48:* Wrightsville-----	Severe: wetness, percs slowly.	Slight-----	Severe: wetness, too clayey.	Severe: wetness.	Poor: wetness, too clayey.

See footnote at end of table.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 20 1995

OFFICE OF
AIR AND RADIATION

Honorable Lauch Faircloth
United States Senate
Washington, DC 20510

Dear Senator Faircloth:

This is in response to your letter of June 8, 1995, concerning the applicability of the Clean Air Act's conformity requirements to the proposed Base Realignment and Closure Commission (BRAC) recommendation to redirect certain F/A-18 squadrons from the Marine Corps Air Station at Cherry Point, North Carolina, to the Naval Air Station at Oceana, Virginia.

The Environmental Protection Agency (EPA) has established the health and welfare-based national ambient air quality standards (NAAQS) and States have developed programs, known as State implementation plans (SIP's), to attain and maintain those NAAQS. To ensure that Federal actions will not interfere with the SIP's, section 176(c) of the Clean Air Act and the EPA implementing regulation requires Federal agencies to make conformity determinations. These determinations are necessary when the Federal action will result in significant increase in emissions of air pollutants which will impact areas not attaining the NAAQS.

It is my understanding that an earlier BRAC had recommended closing Cecil Field in Florida and relocating several squadrons to Cherry Point, North Carolina. Cherry Point is located in an attainment area in eastern North Carolina. The new Commission is recommending that the squadrons go to Oceana, Virginia. Oceana is part of the Norfolk-Virginia Beach-Newport News (Hampton Roads) marginal ozone non-attainment area.

In your letter, you requested EPA's interpretation of the general conformity requirements as applied to the BRAC recommendations. Specifically, you asked, "Is a conformity determination or conformity analysis required prior to a BRAC decision?" It is my understanding that a preliminary analysis by the Navy indicates that relocation of the squadrons will result in a significant increase in emissions of ozone precursors at the squadrons' new base. Thus, if the Navy relocates the squadrons to a base in a non-attainment area, such as Oceana, it must make a conformity determination. In order to demonstrate conformity, the Navy must prepare a year-by-year estimate of the total direct and indirect emissions and demonstrate that the transfer will not cause or contribute to any new violation of the NAAQS; increase

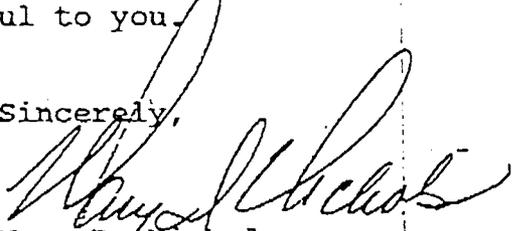


the frequency or severity of any existing violation of the NAAQS, or; delay Virginia's attainment of the NAAQS.

The BRAC Commission is only making a recommendation to the President and Congress and the recommendation is not in itself an action which will result in an increase in emissions, and thus, would not require a conformity determination. While environmental impact is one of the factors which the BRAC must consider in developing its recommendation, the requirement to prepare a conformity determination rests with the Navy. This needs to be done before the transfer is executed.

I appreciate this opportunity to be of service and trust that this information will be helpful to you.

Sincerely,



Mary D. Nichols
Assistant Administrator
for Air and Radiation

Document Separator



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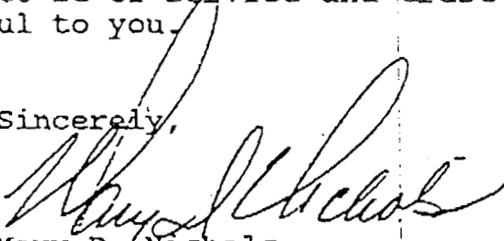


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DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20350-1000

Dixon

LT-0768-F15
BSAT/BL
19 May 1995

The Honorable Alan J. Dixon
Chairman, Defense Base Closure
and Realignment Commission
1700 North Moore Street
Suite 1425
Arlington, VA 22209

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As always, if I can be of any further assistance, please let me know.

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Answer: The baseline year for conformity is 1990.

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Answer:

Pollutant	Attainment	Non-Attainment
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Ozone		Marginal
PM-10	X	
SO2	X	
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Pb	X	

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Answer:

The numbers of aircraft and personnel that would relocate to Oceana as a result of the BRAC 95 recommendations will be determined by the operational commander and refined through the budget process. However, for the purpose of our analysis, we assumed seven F-14 squadrons, eight A-6 squadrons, an A-6 RAG, and 1 adversary squadron were leaving for a total of 228 aircraft, with eight F/A-18 squadrons, an F/A-18 RAG, and four F-14 squadrons, or 202 aircraft, were transferring into Oceana, between FY 1990 and FY 2001. The personnel moves into and out of the greater Norfolk area, between FY 1995 and FY 2001, netted an eleven thousand personnel decrease. This figure also reflects decreases outside the base closure process, due to force structure downsizing.

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DEPARTMENT OF THE NAVY
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Brubaker

LT-0768-F15
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19 May 1995

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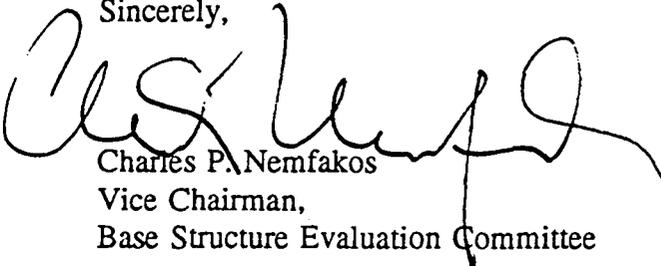
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Brubaker

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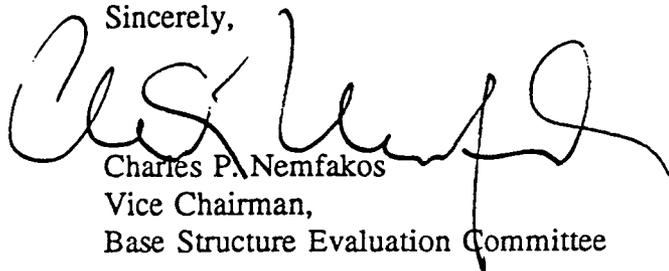
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Brubaker

LT-0768-F15
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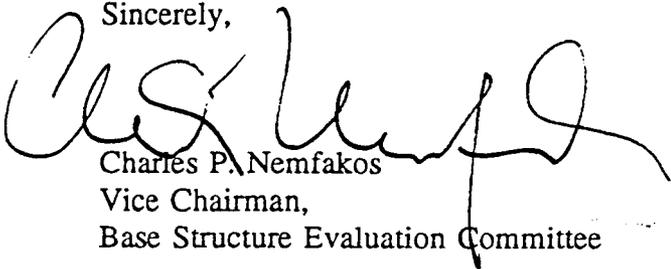
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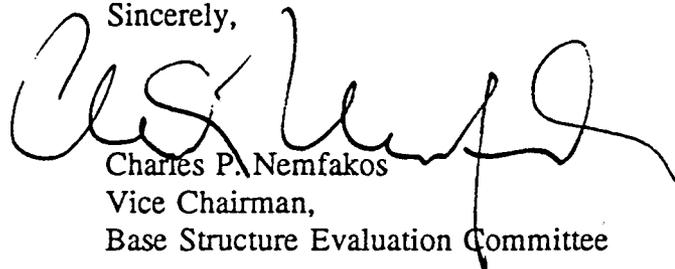
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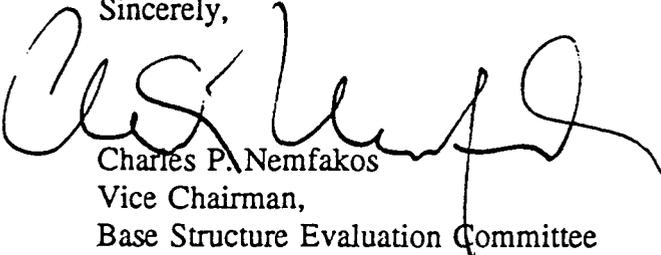
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Document Separator



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Brubaker

LT-0768-F15
BSAT/BL
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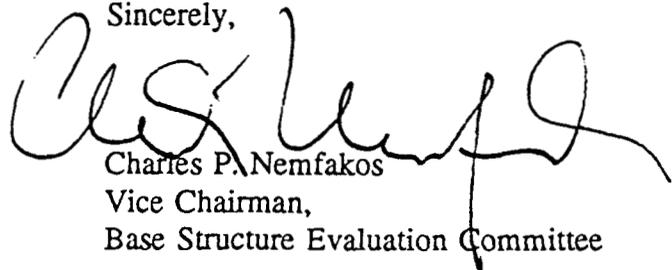
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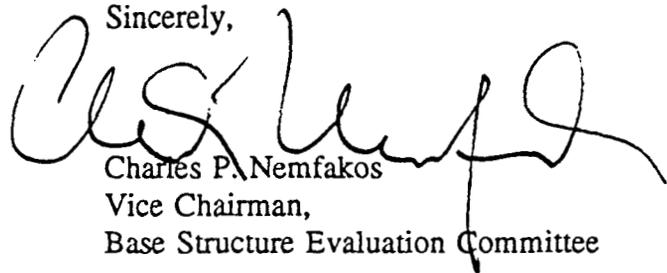
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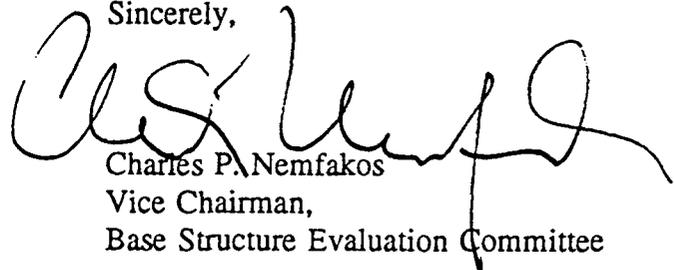
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These questions relate to recommended actions, which will/may not be law until the end of the BRAC 1995 process (Sept 95). As such, there is no requirement to initiate a conformity determination prior to Sept 95 because (1) until that time the realignment is only a recommendation, and (2) operational commander input will be required to determine exact numbers of planes, ships and personnel movement involved. A point of contact at the Navy's Engineering Field Division, who oversees air quality issues at Oceana is Mr. Dan Cecchini at (804)322-4891. No contact has been initiated with the local air district or EPA.



DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20350-1000

Brubaker

LT-0768-F15
BSAT/BL
19 May 1995

The Honorable Alan J. Dixon
Chairman, Defense Base Closure
and Realignment Commission
1700 North Moore Street
Suite 1425
Arlington, VA 22209

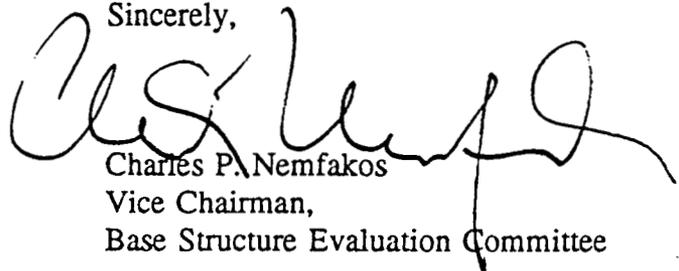
Dear Chairman Dixon:

This is in response to a request from Deirdre Nurre of your staff for information regarding air conformity at NAS Oceana.

Ms. Nurre submitted a list of questions pertaining to the current status of the air conformity determination which may be needed due to the transfer of additional aircraft and personnel into the Norfolk area. Additionally, she requested information on the air quality status of NAS Oceana. Her questions and our answers are provided in the attachment. We have provided the certified data that addresses the air quality for NAS Oceana. However, no information on a conformity determination could be provided since one has not yet been initiated. The potential additions or deletions to the base closure list by the commission and the input from operational commanders on specific transfers of personnel and aircraft following enactment of the recommendations, deem a conformity determination premature at this time.

As always, if I can be of any further assistance, please let me know.

Sincerely,



Charles P. Nemfakos
Vice Chairman,
Base Structure Evaluation Committee

Attachment

QUESTIONS FROM BRAC COMMISSION (DIEDRE NURRE) REGARDING RECEIPT OF ADDITIONAL FLYING MISSIONS AT OCEANA AND THEIR IMPACT ON AIR CONFORMITY:

Question 1. Has a conformity determination been drafted in anticipation of the receipt of additional planes and personnel at Oceana? If not, has one been initiated? Has the local air district been contacted to work with the Navy on the conformity determination?

Answer: The requirement for executing a conformity determination does not apply until the Navy executes, or prepares to execute a Federal action. Considering the steps of the Base Closure process, until the recommendations become law and the potential for change during Base Closure process ceases, any work on a conformity determination at this time would be premature. The conformity determination has not been initiated and the local air district has not been contacted.

Question 2. What is the baseline year for conformity purposes? Is it the 1990 baseline, or has a more recent SIP been passed which should be used as a baseline?

Answer: The baseline year for conformity is 1990.

Question 3. What is the current attainment/nonattainment status of the local air district for the 6 criteria pollutants? Please state level of nonattainment, if it applies (marginal, moderate, serious, etc).

Answer:

Pollutant	Attainment	Non-Attainment
CO	X	
Ozone		Marginal
PM-10	X	
SO2	X	
NO2	X	
Pb	X	

Question 4. What is the number of planes and personnel coming to Oceana as a result of the BRAC-95 proposed redirect?

Answer:

The numbers of aircraft and personnel that would relocate to Oceana as a result of the BRAC 95 recommendations will be determined by the operational commander and refined through the budget process. However, for the purpose of our analysis, we assumed seven F-14 squadrons, eight A-6 squadrons, an A-6 RAG, and 1 adversary squadron were leaving for a total of 228 aircraft, with eight F/A-18 squadrons, an F/A-18 RAG, and four F-14 squadrons, or 202 aircraft, were transferring into Oceana, between FY 1990 and FY 2001. The personnel moves into and out of the greater Norfolk area, between FY 1995 and FY 2001, netted an eleven thousand personnel decrease. This figure also reflects decreases outside the base closure process, due to force structure downsizing.

Question 5. What estimates of emissions in tons/year, if any were the basis for the statement in the March 95 "DOD Base Closure and Realignment Report" that a conformity determination would be needed as a result of redirects?

Answer: The order of magnitude of emission data for 1992/93, which was provided in certified data, indicated that a conformity determination may be required.

	NOx (tpy)	VOC (tpy)
1992	2593	2177
1993	2788	2109

Since no conformity determination was performed and no calculation of emissions was initiated, no estimates can be provided. It is not known if NOx and VOC emissions will fall above or below the de minimus levels for NOx and VOC, or 100 tons/yr each. However, using 1990 as a baseline, coupled with offsets, it is possible that a conformity review for the BRAC 95 recommendation will be below threshold levels and a conformity determination will not be required.

Question 6. If declining numbers of planes and people are contemplated as a possible offset for conformity purposes, what were the years in which these losses took place? Was this offset sufficient to make up for BRAC 95 gains? (Note: this is the type issue that a conformity determination would document.)

Answer:

See answer to question four. The DON's Base Closure analysis of air quality impacts was a macro look at long term trends in air quality. When the conformity determination is conducted, it will seek to look at projected impacts over a wide range of years, many of which are in the future. Operational commanders will have to determine the times and dates of actual aircraft and personnel transfer, once the 1995 Base Closure recommendation becomes law. Any analysis needing outyear data would be premature at this time.

Examining the specific years of the reduction in planes, personnel, and ships within the Hampton Roads air quality control district will be part of the analysis conducted in support of a conformity determination. The analysis conducted looked at net aircraft and personnel changes between FY 1995 and FY 2001 and did not look at individual year impacts.

Question 7. Who can Commission staff call at Oceana, the local air district, and U.S. EPA regional office to discuss these conformity questions?

Answer:

These questions relate to recommended actions, which will/may not be law until the end of the BRAC 1995 process (Sept 95). As such, there is no requirement to initiate a conformity determination prior to Sept 95 because (1) until that time the realignment is only a recommendation, and (2) operational commander input will be required to determine exact numbers of planes, ships and personnel movement involved. A point of contact at the Navy's Engineering Field Division, who oversees air quality issues at Oceana is Mr. Dan Cecchini at (804)322-4891. No contact has been initiated with the local air district or EPA.

Document Separator

SUMMARY OF CLEAN AIR ACT CONFORMITY CONCERNS:
[DoD Recommended Redirect of Cecil Field F-18's to NAS Oceana]

- ◆ Air quality impacts of the proposed DoD redirect to NAS Oceana are a significant issue arising both under express BRAC Commission selection criteria and Clean Air Act conformity requirements.
- ◆ The Hampton Roads area, which includes NAS Oceana, presently is designated "marginal" nonattainment for ozone; EPA presently is contemplating elevation of this classification to the more serious "moderate" category.
- ◆ Combined impacts, direct and indirect, resulting from the proposed NAS Oceana redirect, coupled with expected growth surges associated with completion of the Lake Gaston Pipeline water project, likely would exacerbate an already significant air quality problem.
- ◆ The Navy concedes that, at the present time, essentially no air quality impact analysis has been performed for this proposed redirect.
- ◆ Regardless of whether the Navy is correct in asserting that its formal Clean Air Act conformity obligations are not yet ripe, by failing to provide the BRAC Commission with adequate information and analysis on significant air quality issues at NAS Oceana, the Navy has left the BRAC Commission vulnerable to legal attack for failure to comply with express provisions of the Base Closure and Realignment Act and/or the Clean Air Act.
- ◆ Unlike NAS Oceana, MCAS Cherry Point does not suffer from any nonattainment conditions and does not present significant Clean Air Act conformity problems in connection with assimilation of the Cecil Field F-18 squadrons.

value of each closure or realignment decision, such impacts are sufficiently important to merit express identification as one of only eight selection criteria to be applied by the BRAC Commission.

Many environmental impact concerns, such as underground storage tank leaks and landfill contamination are to varying degrees common to all DoD facilities. However, air quality impacts often are unique to a facility and the air quality of proposed receiving areas can be materially affected by realignment decisions by the BRAC Commission. For purposes of CAA compliance, acceptability of receiving area impacts is determined by answering whether the decision would comply with the conformity requirements of the 1990 CAA Amendments, 42 U.S.C. §§ 7401 et seq.

As can be seen from a review of summary environmental documentation for the proposed 1995 DoD BRAC 95 recommendations, analysis of air quality impacts is intended to be an integral part of the BRAC process. Prior to developing its recommendations to the President, the Commission is required to take into account, among other impacts, whether a proposed realignment will adversely affect air quality in the receiving area. In the present case, because the Commission is deciding between NAS Oceana and MCAS Cherry Point, comparative impacts of the pending choice on the air quality in the two candidate receiving areas must be analyzed before a defensible decision can be reached. As discussed below, the ultimate standard to be applied regarding air quality impacts is whether the proposed action conforms to the requirements of the applicable State Implementation Plan ("SIP").

Though environmental considerations play an important role in the BRAC decisionmaking process, decisions of the BRAC Commission itself are not subject to the formal EIS requirements of the National Environmental Policy Act ("NEPA"), 42 U.S.C 4321 et seq. Section 2905(c) of the Base Closure and Realignment Act exempts from NEPA the actions of the President, the BRAC Commission and the Secretary of DoD in reaching their respective BRAC decisions. However, once the BRAC process culminates in a final decision, subsequent federal actions to close an installation or relocate equipment and personnel from one installation to another are subject to NEPA. The fact that the actual relocation of the Cecil Field F-18 squadrons and support personnel to either MCAS Cherry Point or NAS Oceana may significantly affect the environment explains why the Navy has prepared internal draft EIS's discussing the proposed relocation to both potential receiving facilities.

CLEAN AIR ACT CONFORMITY REQUIREMENTS

The requirement that federal actions conform with SIPs first appeared in the 1977 CAA Amendments (P.L. 95-95). The CAA requirement is analogous to the consistency requirement contained in the federal Coastal Zone Management Act and the 401 Certification requirement contained in the federal Clean Water Act. The 1990 CAA Amendments

expanded the scope and content of the conformity requirement by defining conformity in relation to air quality, expressly linking conformity to an applicable SIP, and requiring the Environmental Protection Agency ("EPA") to promulgate procedures for making conformity determinations.

Statutory Provisions.

Section 176(c) of the CAA requires that all Federal actions conform to an applicable SIP. Specifically, § 176(c)(1) of the 1990 Amendments provides that:

No department, agency, or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity which does not conform to an implementation plan after it has been approved or promulgated under 7410 of this title The assurance of conformity to such an implementation plan shall be an affirmative responsibility of the head of such department, agency or instrumentality.

42 U.S.C. § 7506(c)(1).

Conformity to a state's implementation plan is defined to mean:

- (A) conformity to an implementation plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards; and
- (B) that such activities will not--
- (i) cause or contribute to any new violation of any standard in any area;
 - (ii) increase the frequency or severity of any existing violation of any standard in any area; or
 - (iii) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

Id.

The CAA's conformity requirements address two principal types of Federal actions:

- transportation-related activities, such as funding highway construction projects by the Department of Transportation ("transportation conformity"); and
- general actions of Federal agencies, such as construction of non-transportation Federal buildings and laboratories and miscellaneous other activities affecting air quality ("general conformity").

Base realignment and closure actions fall into the latter category.

Conformity Regulations.

Regulations promulgated by EPA to implement the general conformity requirements were published in the Federal Register on November 30, 1993 (58 FR 63214). The general conformity rule covers direct and indirect air emissions of criteria pollutants or their precursors that are caused by a Federal action, are reasonably foreseeable, and can practicably be controlled by the Federal agency through its continuing program responsibility. 58 FR at 63214.

Key Definitions.

"Direct emissions" are those that are caused or initiated by the Federal action and occur at the same time and place as the action. 40 C.F.R. § 93.152. In this case, such emissions would include jet exhausts, fueling operations, maintenance and repair, and painting operations.

"Indirect emissions" are those that are:

- (1) caused by the Federal action, but may occur later in time and/or may be further removed in distance from the action itself but are still reasonably foreseeable; and
- (2) the Federal agency can practicably control and will maintain control over due to a continuing program responsibility of the Federal agency.

Id. Examples of such emissions include automobile exhausts from base and employee vehicles, support facility construction emissions, and emissions from base facilities and residences resulting from personnel increases.

"Criteria pollutants or their precursors" includes any pollutant for which a National Ambient Air Quality Standard ("NAAQS") has been established [includes, inter alia, volatile organic compounds ("VOCs") and nitrogen oxides ("NOx"), which are the precursors of ozone or smog].

Id.

"Federal action" includes any activity engaged in by a department, agency, or instrumentality of the Federal government, or any activity that a department, agency or instrumentality of the Federal government supports in any way, provides financial assistance for, licenses, permits, or approves.

Id.

This definition is very broad and clearly encompasses the proposed relocation of the Cecil Field F-18 fighter squadrons and support personnel. Arguably, it also encompasses the BRAC decision itself, because the Commission is "approving", or at least "supporting" through its recommendation to the President, the specific activity of relocating the Cecil Field F-18 fighter squadrons and support personnel from Cecil Field to one or more specific receiving areas.

The preamble to the final conformity rule indicates that multiple Federal agencies may be required to make a conformity determination for a related project. See 58 FR at 63238, 63239. In such cases, the responsibility remains on each agency, but the rule gives flexibility in how the conformity analysis is conducted. An agency may either undergo its own analysis or it can rely on a proper analysis undertaken by another agency. Thus, it is arguable that the BRAC Commission itself may be subject to the CAA's conformity requirements; if so, it can either rely on an analysis of air quality impacts by the Navy, or undertake its own analysis. In either case, the analysis must be completed prior to the BRAC final decision.

Should it be determined (by litigation or otherwise) that the CAA does not require the BRAC Commission to perform a full conformity analysis prior to issuing its final decision, that conclusion would not relieve the Commission of its authority and responsibility to weigh and consider the relative Clean Air Act conformity merits of alternate receiving base candidates as part of the statutory BRAC decisionmaking process. Put another way, the BRAC statute itself and the implementing DoD criteria expressly require that the Commission consider the relative environmental impacts associated with MCAS Cherry Point versus NAS Oceana as receiving sites for the Cecil Field F-18 squadrons. With regard to air quality concerns, this environmental impact review requirement applies regardless of the timing of the formal conformity analysis required under the CAA and regardless of the timing of the formal NEPA EIS process.

CAA Conformity Exemptions.

Certain Federal actions are exempted from the conformity requirements, either categorically or due to their de minimis emissions impact. Categorical exemptions include:

(viii) routine movement of mobile assets, such as ships and aircraft, in home port reassignments and stations (when no new support facilities or personnel are required) to perform as operational groups and/or for repair or overhaul.

40 C.F.R. § 93.153(c)(2)(viii).

As apparently conceded by the DoD, permanent relocation of fighter aircraft squadrons from one station to another does not fall under this

exemption. As discussed below, the Navy does not (and cannot) claim an exemption for the proposed relocation of the Cecil Field F-18 squadrons action under this CAA rule.

Federal actions are also exempt if the total of direct and indirect emissions caused by the action fall below certain specified de minimis emission levels. The levels vary by pollutant and the air quality status of an area. NAS Oceana is part of the Hampton Roads ozone nonattainment area (i.e., the area has been designated under CAA § 107 as nonattainment due to air quality monitoring data which shows a violation of the ozone NAAQS). The EPA has classified the area as a "marginal" ozone nonattainment area. Under the general conformity rule, the de minimis exemption level for a marginal ozone nonattainment area is 100 tons per year (tpy) of NOx or VOC.

If the Navy can show that the net emissions change within the Hampton Roads area resulting from the relocation of the squadrons to NAS Oceana would be less than 100 tpy of NOx and VOC, the proposed action would not require a formal conformity determination under EPA's general conformity rules. In the answer to Ms. Diedre Nurre's Question 5, contained in Mr. Charles P. Nemfakos' letter of May 19, 1995 (copy attached), the Navy has raised the possibility that net emission levels at Oceana could be below de minimis levels for NOx and VOC. Unfortunately, at the present time it is impossible for the Commission to reasonably weigh the relative impact of CAA conformity requirements on the DoD recommendation to move F-18's to Oceana because of the absence of any analysis or modelling of potential air quality impacts. What is clear, however, is that MCAS Cherry Point is located in an area that already is in full attainment status for all regulated air pollutants and, therefore, there are no CAA nonattainment hurdles to be cleared if the Cecil Field F-18 squadrons are directed to Cherry Point as recommended by the final 1993 BRAC Commission process.

Conformity Determination Substance and Procedures.

Emissions Budget. The essence of a conformity determination is that the emissions increase associated with a particular Federal action must be able to be accommodated within the "emissions budget" of the nonattainment area in question. An emissions budget is the level of emissions of each criteria pollutant for mobile (i.e., motor vehicles), stationary (i.e., buildings, factories), and area sources (i.e., small, numerous sources such as dry cleaners, auto body shops, etc.), which are necessary to meet CAA requirements to attain and maintain the applicable NAAQS.

According to Jim Sydnor, Director of Planning, Air Quality Section of the Virginia Department of Environmental Quality, the State of Virginia has not yet developed an emissions budget for the Hampton Roads area and other nonattainment areas. A budget is currently under development, as required by EPA. See 60 FR 21451 (May 2, 1995). Similarly, the State

is currently developing state conformity regulations to implement the Federal requirements. Public hearings are anticipated soon. A review of the draft rules suggests that state procedures will closely adhere to federal requirements.

It is important to note that the Navy's emission estimates to-date for the DoD-proposed transfer to Oceana appear to represent only a gross approximation of emissions over the FY 1995 - FY 2001 period. No effort has been made to break down an estimate for each year. Under the CAA, however, the State is required to develop an annual estimate of NOx and VOCs and set milestones for annual reductions in each pollutant. In addition, Virginia is required to demonstrate full attainment with the federal ozone NAAQS by no later than November 15, 1996. See 60 FR 3349 (January 17, 1995). Following attainment of the NAAQS, the State must demonstrate to the satisfaction of EPA that the NAAQS will be maintained for a period of at least 10 years. CAA § 175A. Thus, if emission increases will occur in the early years and decreases will occur only in the latter years, the Navy may be unable to demonstrate conformity with Virginia's SIP provisions to attain and maintain the NAAQS without documenting additional, costly on-or off-site improvements in other ozone pollution sources. In summary, without an emissions budget and a detailed year-by-year breakdown of emissions attributable to the proposed F-18 relocation to Oceana, it is virtually impossible for the Commission to determine whether and at what cost the proposed action will comply with CAA conformity requirements.

Computer Modeling. In the absence of an emissions budget, the Navy must demonstrate conformity through computer modeling analyses or an equivalent method. Through this method, the Navy might be able to demonstrate that the Oceana action will not violate or increase the number or severity of violations of the ozone NAAQS. Once again, the results of any such analysis are unknown at this time. Importantly, such an analysis could show that this proposed action, coupled with the increased development associated with the (anticipated) completion of the Lake Gaston water pipeline project and resulting Virginia Beach growth spurt, will cause additional or more severe violations of the NAAQS within the Hampton Roads area.

Emissions Offsets. An important component of the general conformity rule is that a Federal action must either offset emissions from within the project itself or offset emissions elsewhere within the nonattainment area in an amount equal to or greater than total direct and indirect emission increases. Thus, in order to demonstrate conformity for the proposed NAS Oceana decision, the Navy must at some point demonstrate that emission reductions equal to or greater than any potential increases will occur within the project or Hampton Roads area. According to the Nemfakos letter, the Navy projects that a total of 228 aircraft will be leaving NAS Oceana, whereas only 202 will be arriving, as a result of the BRAC closure recommendation. See Answer to Question 4. Thus, the Navy may be able to show that any emission increases will

be more than offset by decreases within the project itself. To satisfy conformity requirements, however, such increases cannot violate or increase the number or severity of an existing NAAQS violation, or delay the attainment of the NAAQS. Any decreases must be certain and fully mitigate the impacts of the emission increases. A BRAC decision to add squadrons and personnel to NAS Oceana without a binding commitment to remove other squadrons and personnel would not appear to satisfy CAA conformity requirements and, more importantly, may not satisfy the implicit requirement that the Commission have adequate environmental impact information on which to satisfy its own statutory and regulatory obligations.

Mitigation. Barring offsets within the activity, the conformity rule makes it clear that a Federal agency may take other measures to mitigate the impacts of any non-conforming Federal action. See 58 FR § 160. Thus, the Navy could adopt measures to reduce NOx and VOC emissions from various emission sources within the nonattainment area under the Navy's control. Examples include Navy employee car or van pooling, additional air pollution controls on existing sources at NAS Oceana or other nearby military installations, and implementation of staggered work schedules at Oceana to minimize rush hour emissions.

Alternatively, the State, in conjunction with the Hampton Roads District Planning Commission, could implement mitigation measures to "make room" within the emissions budget for any emissions increase associated with the BRAC decision. As with any Navy mitigation measures, mitigation measures implemented by other entities in the Hampton Road area must be identified and be the subject of written commitments from the entities involved. In short, to qualify mitigation measures must be concrete and enforceable.

Timing of Conformity Determination. One of the most problematic issues raised by the need to comply with CAA conformity requirements is whether a formal CAA conformity determination is required before or after the BRAC 95 decision is made. In Nemfakos' letter, the Navy asserts that a conformity determination prior to the final BRAC recommendation becoming law is premature. Regardless of the accuracy of this conclusion as to the timing of the formal CAA conformity analysis, it is obviously of concern that the Commission itself undertake its own air quality analysis before its decision is finalized. Otherwise, how can the Commission be said to have discharged its independent obligation to consider environmental impacts? Hence, the issue of adequate information and analysis on the issue of the timing and cost of CAA conformity requirements at Oceana may prove to be an important part of the BRAC 95 decisionmaking process.

The general conformity rule requires only that a determination be made prior to the Federal action being taken. The rule does not speak in terms of "prior to a final decision regarding the action." Action is not necessarily equated with the decision. Thus, the Navy's current

position that a conformity determination is appropriate only after the BRAC decision is final, but prior to the actual relocation of aircraft and personnel, is not entirely unreasonable.

The Navy's position, however, also is arguably unreasonable and, more importantly, contrary to the independent obligations set forth in the Base Closure and Realignment Act that environmental impacts, including air quality impacts, of recommended decisions be fully and adequately evaluated by the Commission. If the Hampton Roads area cannot accommodate, or will have difficulty accommodating, the potential emissions increase associated with the Cecil Field F-18 squadrons, and there is inadequate information in the record on this issue, a final BRAC decision affirming the DoD's recommendation will be flawed. At the very least, the Commission must weigh this factor together with other factors to ensure that an appropriate decision is reached.

SUMMARY OF CONCERNS RE THE DOD PROPOSED RELOCATION TO NAS OCEANA:

1. The air quality of the Hampton Roads area is already poor; the redirection of the Cecil Field F-18's will only exacerbate the condition and make attainment of the ozone NAAQS more difficult.

The Hampton Roads area is already nonattainment for ozone, whereas eastern North Carolina is classified as attainment for all criteria pollutants. According to EPA Region III official Paul Winthrop, EPA has proposed to elevate the Hampton Roads area from marginal to moderate (a more severe category), due to continuing ozone problems. Mr. Winthrop recently stated via telephone communication with the author that such elevation by EPA may be imminent.

In a January 1995 Federal Register Notice (60 FR at 3350; copy attached), EPA stated that the Hampton Roads area has failed to demonstrate attainment with the ozone NAAQS by the November 15, 1993 deadline. According to EPA, eight exceedances of the standard were recorded in the 1991-1993 time period, with measured concentrations triggering potential reclassification of the Hampton Roads area to the more serious "moderate" nonattainment category. This information from EPA indicates that air quality in the area is not improving and, in fact, may be deteriorating with regard to ozone. Relocation of the Cecil Field F-18 squadrons into such an environment likely would make matters worse and certainly could trigger significant CAA conformity concerns.

2. The State of Virginia has not yet developed an emissions budget for the Hampton Roads area, and apparently no computer modeling has been conducted; thus, neither the Navy nor the BRAC Commission can determine whether the new F-18 squadrons can be accommodated without causing or contributing to further violations of the ozone NAAQS.

The BRAC decision process is running ahead of Virginia's efforts to develop an emissions budget and general CAA conformity rules. In the absence of computer modeling or other analyses, no one can determine whether the DoD recommended decision complies with Virginia SIP requirements on the issue of overcoming the present Hampton Roads ozone nonattainment status. At a minimum, the Commission should require a year-by-year analysis of ozone air quality impacts at Oceana before a final decision is made to locate significant new pollution sources within a growing metropolitan area that already is nonattainment for the priority pollutant ozone. In contrast, it appears that the air quality impacts of locating the Cecil Field F-18 squadrons at MCAS Cherry Point would be not raise similar informational or substantive concerns. The fundamental point with regard to NAS Oceana is that we know the area already is nonattainment for ozone; what we do not know is how the proposed permanent relocation of the Cecil Field F-18 squadrons into this nonattainment area would be accomplished, under what timeline CAA conformity would be documented, and at what cost.

3. The Oceana F-18 relocation proposal should be evaluated together with other growth impacts reasonably anticipated for the Hampton Roads area. The aggregate impacts of future development activity in the area may pose even more serious air quality problems in the near future.

The synergistic effect of the proposed NAS Oceana redirect and the construction of the Lake Gaston pipeline has apparently not been considered. For many years the Norfolk/Virginia Beach area has been under a virtual moratorium on development due to a chronic shortage of water. Now that a settlement agreement has been reached between North Carolina and the City of Virginia Beach, it is possible that the existing moratoria on new water connections will be lifted in less than three years, thus triggering a surge of development activity as long-pent-up demands for development are unleashed. The aggregate impact of growth induced by the relocation of the F-18 squadrons and thousands of associated personnel, and the growth spurt induced by a (partial) alleviation of chronic water shortages could be very significant. In sum, the DoD recommended NAS Oceana redirect arguably will result in unacceptable cumulative environmental impacts due to the already polluted and congested nature of the receiving area's air and the prospect for significant additional pollution sources, should the pipeline be completed.

Office Memorandum
June 5, 1995
Page 11

4. The Navy should make a conformity determination, or at least undertake a more detailed conformity analysis, prior to the BRAC decision. Without such information, a final BRAC decision redirecting the Cecil Field F-18's to NAS Oceana may be vulnerable to legal attack.

Potential air quality impacts are clearly an issue with respect to NAS Oceana. The final BRAC 93 Report to the President states that NAS Oceana has a "lower military value" than MCAS Cherry Point and environmental impact concerns played an important role in the decision to transfer the Cecil Field F-18 squadrons to MCAS Cherry Point. In the absence of a CAA conformity determination or analysis, the BRAC 95 Commission cannot document that it has fully discharged its mandate by, among other things, considering fully all material environmental impact criterion. The Navy's recent explanation that a formal CAA conformity determination for NAS Oceana is premature should be rejected as self-serving. Regardless of whether the Navy or the BRAC Commission have formal conformity obligations under the CAA, the decision-making process established by the Base Closure and Realignment Act itself requires that the BRAC Commission conduct an adequate analysis of all material environmental impact concerns in order to carry out its mandate. Once the BRAC Commission's decision on the Cecil Field F-18's is made, it will be too late to determine whether likely adverse air quality impacts at the receiving site are unacceptable in terms of time, costs and long term outlook. Without such documentation, numerous third parties with standing may be able to challenge any final BRAC 95 redirect to NAS Oceana on the grounds that the decision fails to comply with Base Closure and Realignment Act requirements and, possibly, with express Clean Air Act conformity requirements as well.

Attachment

WSMAIN/146540.

(T) Consent Order 23-1993 effective October 12, 1994 issued by the MDNR. This Order limits the PM emissions for the McLouth Steel Company, Trenton Plant.

(U) Consent Order 24-1993 effective October 12, 1994 issued by the MDNR. This Order limits the PM emissions for the Michigan Foundation Company, Cement Plant.

(V) Consent Order 25-1993 effective October 12, 1994 issued by the MDNR. This Order limits the PM emissions for the Michigan Foundation Company, Sibley Quarry.

(W) Consent Order 26-1993 effective October 12, 1994 issued by the MDNR. This Order limits the PM emissions for the Morton International, Inc., Morton Salt Division.

(X) Consent Order 27-1993 effective October 12, 1994 issued by the MDNR. This Order limits the PM emissions for the National Steel Corporation, Great Lakes Division.

(Y) Consent Order 28-1993 effective October 12, 1994 issued by the MDNR. This Order limits the PM emissions for the National Steel Corporation, Transportation and Materials Handling Division.

(Z) Consent Order 29-1993 effective October 12, 1994 issued by the MDNR. This Order limits the PM emissions for the Peerless Metals Powders, Incorporated.

(AA) Consent Order 30-1993 effective October 12, 1994 issued by the MDNR. This Order limits the PM emissions for the Rouge Steel Company.

(BB) Consent Order 31-1993 effective October 12, 1994 issued by the MDNR. This Order limits the PM emissions for the Keywell Corporation.

(CC) Consent Order 32-1993 effective October 12, 1994 issued by the MDNR. This Order limits the PM emissions for the St. Marys Cement Company.

(DD) Consent Order 33-1993 effective October 12, 1994 issued by the MDNR. This Order limits the PM emissions for the United States Gypsum Company.

(EE) Consent Order 34-1993 effective October 12, 1994 issued by the MDNR. This Order limits the PM emissions for the Wyandotte Municipal Power Plant.

[FR Doc. 95-1067 Filed 1-13-95; 8:45 am]

BILLING CODE 6560-50-P

40 CFR Part 81

[VA37-1-6812a; FRL-5139-8]

Clean Air Act Promulgation of Reclassification of Ozone Nonattainment Areas in Virginia, and Attainment Determinations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: This action reclassifies the Norfolk-Virginia Beach-Newport News (Hampton Roads), VA ozone nonattainment area from marginal nonattainment to moderate nonattainment. This action also determines that the Sussex, DE; Allentown-Bethlehem-Easton, PA-NJ; Altoona, PA; Erie, PA; Harrisburg-Lebanon-Carlisle, PA; Johnstown, PA; Lancaster, PA; Scranton-Wilkes-Barre, PA; Youngstown-Warren-Sharon, PA-OH; York, PA; and Greenbrier, WV ozone nonattainment areas classified as marginal have attained the ozone air quality standard by the November 15, 1993 attainment date. In addition, this action determines that the Kent and Queen Anne's Counties, MD marginal ozone nonattainment area attained the ozone standard by November 1994. These actions are based on monitored air quality readings for ozone during the years 1991-1994. This is not a redesignation action for these marginal areas for which air quality monitoring data indicates attainment of the standard. The Clean Air Act requires that a separate redesignation request be submitted by the appropriate states to EPA. Finally, this document sets forth the method which EPA will use throughout the country henceforth to notify the public that areas have attained an air quality standard. EPA is taking no action in this document regarding the Smyth County, VA nonattainment area.

DATES: This action will be effective March 20, 1995, unless notice is received by February 16, 1995 that someone wishes to submit adverse or critical comments. If the effective date is delayed timely notice will be published in the Federal Register.

ADDRESSES: Comments may be mailed to Thomas J. Maslany, Director, Air, Radiation, and Toxics Division, U.S. Environmental Protection Agency, Region III, 841 Chestnut Building, Philadelphia, Pennsylvania 19107. Copies of the documents relevant to this action are available for public inspection during normal business hours at the Air, Radiation, and Toxics Division, U.S. Environmental Protection

Agency, Region III, 841 Chestnut Building, Philadelphia, Pennsylvania 19107.

FOR FURTHER INFORMATION CONTACT: Maria A. Pino, (215) 597-9337, at the EPA Regional office listed above.

SUPPLEMENTARY INFORMATION:

I. Background

A. Clean Air Act Requirements and EPA Actions Concerning Designation and Classification

Section 107(d)(4) of the Clean Air Act (the Act) required the States and EPA to designate areas as attainment, nonattainment, or unclassifiable for ozone as well as other pollutants for which national ambient air quality standards (NAAQSs) have been set. Section 181(a)(1) (table 1) required that ozone nonattainment areas be classified as marginal, moderate, serious, severe, or extreme, depending on their air quality.

In a series of Federal Register documents, EPA completed this designation and classification process. See 56 FR 58694 (November 6, 1991); 57 FR 56762 (Nov. 30, 1992); and 59 FR 18967 (April 21, 1994). By these documents, EPA designated and classified all areas of the country for ozone.

Areas designated nonattainment for ozone are required to meet attainment dates specified under the Act. For areas classified Marginal through Extreme, the attainment dates range from November 15, 1993 through November 15, 2010. A discussion of the attainment dates is found in the General Preamble, 57 FR 13498 (April 16, 1992).

The Sussex, DE; Kent and Queen Anne's Counties, MD; Allentown-Bethlehem-Easton, PA-NJ; Altoona, PA; Erie, PA; Harrisburg-Lebanon-Carlisle, PA; Johnstown, PA; Lancaster, PA; Scranton-Wilkes-Barre, PA; Youngstown-Warren-Sharon, PA-OH; York, PA; Norfolk-Virginia Beach-Newport News (Hampton Roads), VA; Smyth County, VA (portion of White Top Mountain); and Greenbrier, WV areas were designated nonattainment and classified marginal for ozone pursuant to 56 FR 56694 (November 6, 1991). By this classification, their attainment date became November 15, 1993.

B. Clean Air Act Requirements and EPA Actions Concerning Reclassification

Section 181(b)(2)(A) requires the Administrator, shortly after the attainment date, to determine whether ozone nonattainment areas attained the NAAQS. This provision states:

Within 6 months following the applicable attainment date (including any extension thereof) for an ozone nonattainment area, the Administrator shall determine, based on the areas design value (as of the attainment date), whether the area attained the standard by the date.

This provision further states that, for areas classified as marginal, moderate, or serious, if the Administrator determines that the area did not attain the standard by its attainment date, the area must be reclassified upwards (bumped-up):

Except for any severe or extreme area, any area that the Administrator finds has not attained the standard by that date shall be reclassified by operation of law in accordance with table 1 of subsection (a) of this section to the higher of—

(i) The next higher classification for the area,

or

(ii) The classification applicable to the area's design value as determined at the time of the notice required under subparagraph (B).

Finally, subparagraph (B) of section 181(b)(2) mandates that the Administrator publish a document in the Federal Register identifying each area that failed to attain the NAAQS.

As quoted above, section 181(b)(2)(A) states that the determination of attainment status be based on the area's "design value". EPA interprets this provision generally to refer to EPA's methodology for determining attainment status. See generally, H Comm. Rep. 101-490 pp. 197, 232 (1990) (House Energy and Commerce Committee Report).

For ozone, EPA determines attainment status on the basis of the expected number of exceedances of the NAAQS over the three-year period up to, and including, the attainment date. See 57 FR 13506 (April 16, 1992) (the "General Preamble"). Under these requirements, for marginal ozone nonattainment areas, EPA reviewed air quality during the years 1991-1993 to determine whether the area met its attainment date.

II. Summary of Action

A. Determinations of Attainment

By this action, EPA is issuing a final rule that determinations under section 181(b)(2)(A) of whether an area attained the ozone NAAQS by its attainment date will be made on the basis of air quality monitoring data for the three-year period up to and including the attainment date. The air quality data relied on for these determinations must be consistent with 40 CFR part 58 requirements and other relevant EPA guidance and recorded in EPA's

Aerometric Information Retrieval System (AIRS).

If this rule takes effect, future EPA determinations of whether an ozone nonattainment area attained the NAAQS by its attainment date will be made solely by reference to AIRS data. EPA would not be required to publish a Federal Register document concerning areas that attained the ozone NAAQS. EPA would continue to be required to publish a Federal Register document for areas that failed to attain the ozone NAAQS and that are subject to reclassification. However, this notice would be a final action not subject to notice and comment under the Administrative Procedures Act, 5 U.S.C. 553(b). Instead, EPA will invoke the "good cause" exemption from notice-and-comment rulemaking, under 5 U.S.C. 553(b)(B). The "good cause" exemption applies when the agency "for good cause finds * * * that notice and public procedure thereon are impracticable, unnecessary, or contrary to the public interest." This exemption applies to merely ministerial actions, and EPA takes the position that a reclassification based on air quality data amounts to a ministerial action.

The system described above would fulfill the requirements of section 181(b)(2) of the Act. EPA intends to undertake the same system for making attainment determinations with respect to areas that are nonattainment for carbon monoxide (CO) under section 186(b)(2). By this action, EPA is issuing a final rule to this effect, which will be effective March 20, 1995 unless notice is received by February 16, 1995 that someone wishes to submit adverse or critical comments. If the effective date is delayed, timely notice will be published in the Federal Register.

B. Region III Nonattainment Areas

EPA is today determining that the Hampton Roads nonattainment area in Virginia failed to demonstrate attainment by its attainment date of November 15, 1993. The Hampton Roads ozone nonattainment area is comprised of Chesapeake, Hampton, James City County, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk Virginia Beach, Williamsburg, and York County in Virginia. This determination is based on air quality monitors revealing exceedances of the ozone NAAQS during the three year period 1991-1993.

In order to attain the NAAQS for ozone, each monitoring site in a nonattainment area must average no more than 1.0 expected exceedance of the standard (0.12 parts per million (ppm) ozone) per year in a three-year

period. The number of expected exceedances is calculated by adjusting the number of actual monitored exceedances to account for missing data. Monitors in the Hampton Roads area in Virginia recorded eight exceedances of the ozone NAAQS in the three year period 1991 to 1993. In the Hampton Roads area, the Suffolk monitor (No. 5 800-0004) recorded five exceedances that time period. Consequently, the average annual expected exceedances for the Hampton Roads area was 1.7 for the 1991-1993 period. The ozone data measured during that same period for this area indicates a design value of 0.131 parts per million (ppm).

Monitoring data in the Hampton Roads area for the 1992-1994 period indicates that the expected number of exceedances remains 1.7 and the design value remains 0.131 ppm ozone. Therefore, the area did not attain the NAAQS for ozone by November 15, 1993 and continues to violate the ozone standard. Pursuant to section 181 of the Act, EPA is required to reclassify (bump-up) the area to moderate.

This document fulfills EPA's obligations under section 181(b)(2) to determine whether the Hampton Roads Virginia marginal ozone nonattainment area attained the ozone NAAQS by its attainment date, and to publish its determination in the Federal Register.

Under Section 182(i) of the Act, reclassifying the Hampton Roads, Virginia area to moderate means that Commonwealth of Virginia will be required to submit State Implementation Plan (SIP) revisions for this area appropriate for moderate areas under section 182(b). Section 182(i) further provides that deadlines provided under the requirements of section 182(b) remain applicable to these areas, except that the Administrator (or the Administrator's delegate) "may adjust any applicable deadlines (other than attainment dates) to the extent such adjustment is necessary or appropriate to assure consistency among required submissions." Accordingly, reclassification to moderate results in attainment date for the Hampton Roads area of November 15, 1996 under section 181(a)(1) (table 1).

However, EPA is exercising its authority to adjust the SIP submission schedule for the moderate area content. All SIP submissions required under section 182(b) must be submitted by November 15, 1995. All required controls and emission reductions must be implemented or achieved on a schedule that facilitates attainment by November 15, 1996 (the attainment date for marginal areas). This submittal will assure consistency in SIP submittal

schedules and afford the States sufficient time to prepare the submittals, while also assuring that the required controls may be implemented by the attainment date. EPA cautions that because the determination of whether the areas attain the NAAQS by the end of 1996 must be based on air quality during the 1994-1996 period, the sooner the moderate controls are implemented, the more likely the area will reach attainment by the end of 1996.

In addition, this notice serves to announce EPA's determination that the Sussex, Delaware; Allentown-Bethlehem-Easton, Pennsylvania-New Jersey; Altoona, Pennsylvania; Erie, Pennsylvania; Harrisburg-Lebanon-Carlisle, Pennsylvania; Johnstown, Pennsylvania; Lancaster, Pennsylvania; Scranton-Wilkes-Barre, Pennsylvania; Youngstown-Warren-Sharon, Pennsylvania-Ohio; York, Pennsylvania; and Greenbrier, West Virginia marginal ozone nonattainment areas succeeded in demonstrating attainment of the ozone NAAQS by their attainment date of November 15, 1993. This determination is also based on ozone air quality data measured during the 1991-1993 period. All of these areas have average annual expected exceedances less than or equal to 1.0 for the 1991-1993 three year period.

Furthermore, EPA has determined that the Kent and Queen Anne's Counties area, Maryland did not attain the ozone standard by its attainment date, but has now attained the standard. During the 1991-1993 period, eight exceedances were monitored at the only monitoring site in the area, the Millington site (No. 24-029-0002). The average annual expected exceedances was 2.8 for the Kent and Queen Anne's areas in that period, and the design value was 0.133 ppm. However, data for the most recent three years period, 1992-1994, indicates that the area has now attained the ozone standard. Only two exceedance were recorded in that time period, making the average annual expected exceedances 0.66 and the ozone design value 0.121 ppm. (Because the ozone standard is 0.12 ppm ozone, design values ≤ 0.124 ppm, which are rounded off to ≤ 0.12 ppm, meet this standard. Design values ≥ 0.125 ppm do not meet the standard because they are rounded off to ≥ 0.13 ppm.) Since this area is no longer violating the ozone standard, reclassification to moderate is not warranted.

Although EPA has determined that the marginal nonattainment areas of Sussex County, DE; Kent and Queen Anne's Counties, MD; Allentown-Bethlehem-Easton, Altoona, Erie, Harrisburg-Lebanon-Carlisle,

Johnstown, Lancaster, Scranton-Wilkes-Barre, Youngstown-Warren-Sharon, and York areas, PA; and Greenbrier County, WV have attained the ozone NAAQS, they will continue to carry the designation of nonattainment and the classification of marginal. They are eligible to be redesignated to attainment under section 107(d)(3), if the criteria of that provision are met. A redesignation of an area to attainment must be a formal request by a State to EPA and include, among other things, a public hearing, all section 110 and part D requirements, and a ten year maintenance plan. EPA must review the request and follow the usual procedures of completeness review, a notice of proposed rulemaking, and a final action after reviewing public comments.

There was no ozone air quality monitoring in Smyth County, Virginia in the 1991-1993 period. Consequently, no determination can be made as to whether or not this area attained the ozone NAAQS. Therefore, EPA is taking no action in this notice regarding this nonattainment area. Smyth County's classification of marginal and rural transport will remain in place.

A detailed discussion of the air quality data used in EPA's attainment determinations is contained in the technical support document (TSD) prepared for this action. Copies of the TSD are available from the EPA Regional office listed in the ADDRESSES section of this document.

Final Action

In this action, EPA is promulgating a reclassification to moderate for the Hampton Roads, Virginia nonattainment area. Also in this action, EPA is notifying the public that future EPA determinations of whether an ozone nonattainment area attained the NAAQS by its attainment date will be made solely by reference to the AIRS data. EPA would not be required to publish a Federal Register notice concerning areas that attained the ozone NAAQS. Finally, this action serves to notify the public that the marginal nonattainment areas of Sussex County in Delaware; Kent and Queen Anne's Counties in Maryland; Allentown-Bethlehem-Easton, Altoona, Erie, Harrisburg-Lebanon-Carlisle, Johnstown, Lancaster, Scranton-Wilkes-Barre, Youngstown-Warren-Sharon, and York areas in Pennsylvania; and Greenbrier County in West Virginia have attained the ozone NAAQS. These areas will continue to carry the designation of nonattainment and the classification of marginal. These areas are eligible to be redesignated to attainment under section 107(d)(3) of

the Act, if the criteria of that provision are met.

This action is being taken without prior proposal because the changes are noncontroversial and EPA anticipates no significant comments on them. The public should be advised that this action will be effective 60 days from date of this Federal Register document. However, if notice is received within 30 days that someone wishes to submit adverse or critical comments, this action will be withdrawn and two subsequent documents will be published before the effective date. One document will withdraw the final action and another will begin a new rulemaking by announcing a proposal of the action and establishing a comment period.

Under section 307(b)(1) of the CAA, 42 U.S.C. 7607(b)(1), petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by March 20, 1995. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2) of the CAA, 42 U.S.C. 7607(b)(2).)

Under E.O. 12291, EPA is required to judge whether an action is "major" and therefore subject to the requirement of a regulatory impact analysis. The Agency has determined that the reclassification made final today would result in none of the significant adverse economic effects set forth in section 1(b) of the E.O. as grounds for a finding that an action is "major." The Agency has, therefore, concluded that this action is not a "major" action under E.O. 12291.

Under the Regulatory Flexibility Act, 5 U.S.C. 600 et. seq., EPA must prepare a regulatory flexibility analysis assessing the impact of any proposed or final rule on small entities. 5 U.S.C. 603 and 604. Alternatively, EPA may certify that the rule will not have a significant impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and government entities with jurisdiction over populations of less than 50,000.

Reclassifications of nonattainment areas under section 181 of the Act do not, by themselves, create any new requirements. Therefore, because this action does not impose any new requirements, I certify that it does not have a significant impact on small

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950612-26

FROM: FAIRCLOTH, LAUCH	TO: BROWNER, CAROL M.
TITLE: SENATOR (AL)	TITLE: ADMINISTRATOR
ORGANIZATION: U.S. CONGRESS	ORGANIZATION: EPA
INSTALLATION (S) DISCUSSED: CHERRY POINT, OCEANA	

OFFICE OF THE CHAIRMAN	FYI	ACTION	INIT	COMMISSION MEMBERS	FYI	ACTION	INIT
CHAIRMAN DIXON				COMMISSIONER CORNELLA			
STAFF DIRECTOR	✓			COMMISSIONER COX			
EXECUTIVE DIRECTOR	✓			COMMISSIONER DAVIS			
GENERAL COUNSEL	✓			COMMISSIONER KLING			
MILITARY EXECUTIVE				COMMISSIONER MONTOYA			
				COMMISSIONER ROBLES			
DIR./CONGRESSIONAL LIAISON				COMMISSIONER STEELE			
DIR./COMMUNICATIONS				REVIEW AND ANALYSIS			
				DIRECTOR OF R & A	✓		
EXECUTIVE SECRETARIAT				ARMY TEAM LEADER			
				NAVY TEAM LEADER	✓		
DIRECTOR OF ADMINISTRATION				AIR FORCE TEAM LEADER			
CHIEF FINANCIAL OFFICER				INTERAGENCY TEAM LEADER	✓		
DIRECTOR OF TRAVEL				CROSS SERVICE TEAM LEADER			
				OR	✓		
DIR./INFORMATION SERVICES							

TYPE OF ACTION REQUIRED

Prepare Reply for Chairman's Signature	Prepare Reply for Commissioner's Signature
Prepare Reply for Staff Director's Signature	Prepare Direct Response
ACTION: Offer Comments and/or Suggestions	FYI

Subject/Remarks:

IS A CONFORMITY DETERMINATION OR CONFORMITY ANALYSIS REQUIRED PRIOR TO A BRAC DECISION TO MOVE F/A-18 TO OCEANA?

Due Date: _____	Routing Date: <u>950612</u>	Date Originated: <u>950608</u>	Mail Date: _____
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United States Senate

WASHINGTON, DC 20510-3305

June 8, 1995

Please refer to this number
when responding 95062-26

Carol M. Browner
Administrator
U.S. Environmental Protection Agency
401 M. Street S.W.
Washington, D.C. 20460

RE: Applicability of Clean Air Act Conformity Requirements
to Proposed BRAC Decision to Redirect F/A-18 Squadrons
from MCAS Cherry Point to NAS Oceana

Dear Administrator Browner:

The purpose of this letter is to raise a matter of considerable urgency. Under the Base Closure and Realignment Act of 1990, 10 U.S.C. 2687, the Base Realignment and Closure Commission ("BRAC Commission") is required to make recommendations to the President by July 1, 1995, regarding the closure and realignment of military installations, equipment and personnel in accordance with the Force Structure Plan. As you may know, the 1993 BRAC process resulted in a decision to close Cecil Field in Florida. Among the actions now being considered by the 1995 BRAC Commission is a recommendation by the Department of Defense to redirect several F/A-18 Navy squadrons based at Cecil Field from MCAS Cherry Point in North Carolina to NAS Oceana in Virginia.

It is of great concern that the air quality impact of the proposed DOD "redirect" to NAS Oceana raises a significant issue under express BRAC Commission selection criteria and Clean Air Act general conformity requirements which has not been adequately addressed.

The Navy concedes that, at the present time, essentially no air quality impact analysis has been performed for this proposed redirect. The Navy has taken the position that any conformity analysis is premature until operational commanders determine the times and dates of actual aircraft and personnel transfer, after the 1995 BRAC Closure recommendations have become law.

Section 176(c) of the Clean Air Act mandates that any Federal agency which approves an action affecting air quality undertake such an analysis. I understand the question of military operations was considered in developing the general conformity

Carol M. Browner
June 8, 1995
page 2

rule, and that an exemption for routine movements of ships and aircraft when no new support facilities or personnel are required was added to the final rule. I am advised that the BRAC process is not expressly exempt.

My concern over the apparent disregard of this requirement is heightened by existing air quality conditions of the proposed NAS Oceana receiving area. The Hampton Roads area, which includes NAS Oceana, is presently classified as nonattainment for ozone. Your agency is in the process of reclassifying the area from marginal to moderate due to the failure of the Hampton Roads area to attain the ozone standard by November 15, 1993, as required by the Clean Air Act. Under Section 181(b)(2) of the Act, by operation of law the Hampton Roads area must be reclassified as a moderate ozone nonattainment area. Given the nondiscretionary nature of such a reclassification, the area should be treated as a moderate nonattainment area for the purposes of any BRAC decision.

The combined impacts of the proposed NAS Oceana redirect, coupled with the expected growth surges associated with completion of the Lake Gaston pipeline water project, likely would worsen an already significant air quality problem. To my knowledge, the combined air quality impacts of these major developments have not been analyzed by any state or federal agency.

Unlike NAS Oceana, MCAS Cherry Point does not suffer from any nonattainment conditions and does not present significant Clean Air Act conformity problems in connection with assimilation of the Cecil Field F/A-18 squadrons.

I would like to know EPA's interpretation of the general conformity requirements as applied to 1995 BRAC decisions. Is a conformity determination or conformity analysis required prior to a BRAC decision? Given the timing of the BRAC Commission's action, a response to my urgent concerns at your earliest convenience prior to June 21, 1995, would be appreciated. Please direct your response to Sean Callinicos, telephone number 202-224-3783, the staff director of the Senate Subcommittee on Clean Air, Wetlands, Private Property, and Nuclear Safety, which I chair.

Sincerely,



Lauch Faircloth

cc: Honorable Alan J. Dixon,
Chairman, BRAC Commission

Document Separator

**GENERAL CONFORMITY GUIDANCE:
QUESTIONS AND ANSWERS**

Office of Air Quality Planning and Standards
(MD-15)
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711

July 13, 1994

BACKGROUND OF GENERAL CONFORMITY

Statutory Obligation

1. Why did EPA promulgate this rule?

A: This rule was a statutory obligation under section 176(c)(4) of the 1990 Amendments as set forth by Congress. Extensive meetings before the proposed and final rules were conducted by EPA with interest groups including, the building industry, environmental groups, STAPPA/ALAPCO, and diverse Federal agencies, to solicit and incorporate their input.

2. Why is section 176 necessary if Federal activities are treated just like private activities under section 118?

A: Section 176 authorizes EPA and the States to regulate Federal activities to a greater extent than they regulate private activities. All activities, private, State and Federal, must comply with specific SIP requirements and obtain pre-construction permits, if applicable. However, pursuant to section 176, only Federal agencies are required, as an additional matter, to determine, prior to taking that action, that such action, when taken, will conform to the SIP.

Attainment/Unclassifiable Areas

3. Will EPA promulgate a rule for attainment/unclassifiable areas? When?

A: It was announced in the final rulemaking that the current conformity rule only applies to nonattainment areas. A separate rulemaking process would establish a conformity rule for attainment/unclassifiable areas. No schedule has been established yet for writing this rule.

4. How will the fact that attainment/unclassifiable areas are not required to submit a SIP affect the rule for these areas?

A: EPA's current rule only applies to nonattainment and maintenance areas. Any subsequent conformity rule would establish relevant conformity criteria and procedures for attainment/unclassifiable areas.

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APPLICABILITY

General

1. How do you decide when a general conformity determination is required?
A: Before any approval is given for an action to go forward, an agency must apply the applicability requirements to a proposed Federal action to determine if a conformity determination is required. The applicability analysis can be completed concurrently with the NEPA analysis. It probably would occur during the environmental assessment. The specific timing would be determined by the Federal agency.
2. What is the difference between indirect and direct emissions and what are the implications of classifying the emissions?
A: Direct emissions are those emissions caused by or initiated by the Federal action and occur at the same time and place as the action. Such emissions include, for example, operational emissions of a Federal facility or the emissions from dredging equipment used in a section 404 permit action. Indirect emissions are those caused by the Federal action, but may occur later in time and/or may be farther removed in distance from the action itself. Direct and indirect emissions must be reasonably foreseeable and the Federal agency must be able to practicably control them as part of its continuing program responsibility. It must also be possible to locate and quantify direct and indirect emissions at the time a conformity determination is made. —The Federal agency is not obligated to account for possible emissions that might result from the Federal action, but cannot be specifically identified, quantified or located. —
3. Can you address the issue of "potential to emit" versus "actual emissions"?
A: Only those emissions from the project that are reasonably foreseeable should be identified at the time the conformity determination is made (*i.e.*, the location of emissions must be known and they must be quantifiable). The analyses should consider the greatest expected level of direct and indirect emissions. Potential indirect emissions that are possible, but not known and quantifiable, need not be considered.
4. Are the U.S. territories of Puerto Rico and Guam subject to the general conformity rule?
A: There are PM-10 nonattainment areas in Puerto Rico and SO₂ nonattainment areas in Guam. Those territories are treated as States for the purpose of air quality control. Thus, the general conformity rule does apply in the nonattainment or maintenance areas in these territories.

13. Does a State NSR or PSD program that may be more stringent than the Federal program have to be Federally-approved in order to qualify it as an exemption under the conformity rule?

A: In order for a State NSR permit program to be Federally enforceable, it has to be Federally approved. Even if a State NSR or PSD program is more stringent than the Federal NSR or PSD program but is not Federally-approved, then the fact that an activity receives a State permit is not enough to qualify as an exemption under the general conformity rule. EPA has to review the State program to ensure that it complies with Federal requirements.

14. Does rulemaking require a conformity determination?

A: No, rulemaking is exempt from the conformity determination process. Section 93.153(c)(iii) states that "rulemaking and policy development and issuance" are not subject to conformity.

15. Does a base closure require a conformity determination?

A: If the base closure involves only sale of property, and the military is no longer maintaining authority over the base, a conformity determination is not required. Exemption XIX under section 93.153(c)(2) of the rule states that "actions (or portions thereof) associated with transfers of land, facilities, title and real properties through an enforceable contract or lease agreement where the delivery of the deed is required to occur promptly after a specific, reasonable condition is met, such as promptly after the land is certified as meeting the requirements of CERCLA, and where the Federal agency does not retain continuing authority to control emissions associated with the lands, facilities, title or real properties" are exempt from the conformity process. However, if the military leases the base and sets conditions regarding the future use of the base, then a conformity determination is required.

Answer is
(Not
applicable
to our
problem.

16. Are emissions from CERCLA's non-National Priority List (non-NPL) sites exempt from the general conformity determination?

A: Yes, to the extent that direct emissions from the cleanup activities on non-NPL sites are permitted under NSR or emissions are exempt from other regulations under CERCLA by the statute itself. Emissions not so addressed, though, are subject to conformity. Although EPA can spend Superfund money only on NPL sites, other agencies, such as the Department of Defense, can take action on non-NPL sites.

17. How does the rule apply to wildfire-response time?

A: Responses to wildfires are considered emergency actions and as such are exempted from the conformity requirements.

Recurring Actions

5. How often should recurring actions that require a conformity determination be reviewed?

A: Revision of a conformity determination is not required if the recurring action fits within any of the exempt categories listed in the rule, such as recurring activities with no increase in activity levels, as described in section 93.1537(c)(2)(ii).

Inter-Agency Issues

6. Is there a conflict-resolution process in the conformity rule?

A: No, but Federal projects cannot be implemented unless all the agencies with jurisdiction over the project find the project to conform.

7. What stimulus and procedures are available for developing an inter-agency review committee?

A: The stimulus for inter-agency review is the fact that without the agreement of all parties with jurisdiction over the project, the project cannot go forward. Procedures for inter-agency review are not provided for in the conformity rules. However, agencies may choose to adopt a NEPA-like review process where one agency is designated as the lead agency and the others are cooperating agencies. Nonetheless, all agencies must make their own conformity determinations.

8. What is the difference between "adopting an agency's analysis" and "an agency making its own determination?"

A: If a Federal action is subject to the conformity rule, the Federal agency must decide whether a conformity determination should be made. For example, if two different Federal agencies have jurisdiction over the same Federal project, one agency cannot rely on the fact that the other agency made a positive conformity determination and forego making its own conformity determination. If one agency makes a positive determination, the other agency should either go through its own conformity analysis and make its own conformity determination or choose to adopt by reference or other means, the analysis, assumptions, and conclusions made by the first agency, as long as this analysis includes the entire scope of the project. If each of the agencies has jurisdiction over parts of the emissions from that action, then each agency must complete its own analysis and make separate conformity determinations for the portion of the action over which it has responsibility.

TRANSPORTATION CONFORMITY

Relationship of Transportation and General Conformity

1. How do the transportation and general conformity rules work together?
 - A. If the action (or portion of it) is subject to the transportation conformity rule, then the action (or portion) is presumed to conform. If the action (or portion of it) is not subject to the transportation conformity rule but is specifically included in a current conforming transportation plan and transportation improvement program (TIP), then documentation of this is sufficient to determine that the action (or portion) conforms under the general conformity rule. However, any project emissions not accounted for under the transportation conformity regulations would have to be analyzed according to the requirements set forth by the general conformity rule. As an example, if an airport expansion had been planned and emissions from vehicles commuting to and from the airport were already estimated and incorporated into the transportation plan and TIP and found to conform, these emissions would not have to be re-analyzed under the general conformity requirements. However, once vehicles enter the airport area, new emissions from vehicles picking up and discharging passengers, from shuttle buses, and parking lots and aircraft emissions would have to be considered under general conformity as new emissions of the airport expansion project.
2. What is EPA's position on a State choosing to include airports, for example, under transportation conformity rather than general conformity?
 - A: Emissions resulting from commuting to and from the airport may be considered through the transportation conformity process. However, any emissions associated with the airport itself will have to be considered as part of the general conformity determination. Non-highway or transit emissions cannot be covered by EPA's transportation conformity rule.
3. Should commuters to and from a new office location be considered in transportation conformity? Would redistributing trips be considered in an existing transportation plan?
 - A: The MPO should be able to answer this question after it examines the conformity analysis done for the transportation plan and TIP. When transportation activity is modeled for the purpose of transportation conformity, the modeling process estimates trips that are generated due to office buildings, retail space, etc. If the modeling process considers the new office building, then no modeling is needed for the purpose of general conformity. Nevertheless, the general conformity determination must document that the emissions have been accounted for in the existing transportation plan and TIP. If the modeling does not consider the new office building, then new transportation modeling should be completed and the estimated emissions should be accounted for in the general conformity

Document Separator

WATER SUPPLY CONCERNS -- UPDATED CHRONOLOGY
(Through June 6, 1995)

- ◆ 1980-81: Southeastern Virginia suffers drought. Navy Oceana Command constructs two emergency water supply wells and, in supporting documentation, determines that:

Efforts to curtail consumption were successful, but these measures were at the expense of operational readiness.

The need for the Navy to have sufficient quantities of potable water to maintain operational readiness is of great importance for national security reasons.¹

- ◆ 1985: Suffolk and Chesapeake require emergency water supplies;²
- ◆ 1986: Norfolk, Virginia Beach, Suffolk and Portsmouth call for voluntary water conservation; Chesapeake requires emergency water supplies;³
- ◆ 1987: Norfolk and Virginia Beach renew calls for voluntary water conservation;⁴
- ◆ 1988: Chesapeake requires alternate water supplies due to salt water intrusion in groundwater well sources;⁵
- ◆ 1988: The Virginia State Water Supply board estimates that the five-city area will need an additional 81 mgd of water by the year 2030 to avoid water storage depletion and mandatory water use restrictions during periods of drought.⁶
- ◆ 1991: Norfolk, Virginia Beach, and Chesapeake impose mandatory water use restrictions'
- ◆ 1991-1992: Norfolk imposes a 30 mgd limit on water deliveries to Virginia Beach; in response, Virginia Beach imposes mandatory, long-term water use restrictions and

¹December 1980 Navy Oceana Environmental Assessment, page 1.

²January 1995 FERC DEIS, page 1-5.

³January 1995 FERC DEIS, page 1-5.

⁴January 1995 FERC DEIS, page 1-5.

⁵January 1995 FERC DEIS, page 1-5.

⁶January 1995 FERC DEIS, page 1-17.

places a moratorium on all new water system connections. These restrictions remain in place to the present day.

- ◆ 1994: The U.S. Corps of Engineers concludes that the five-city area (Norfolk, Portsmouth, Chesapeake, Virginia Beach, and Suffolk) is very vulnerable to drought and, without an additional water supply, faces water problems of extreme proportions.⁷
- ◆ January of 1995: FERC publishes its Draft EIS on the Lake Gaston Pipeline project in which it concluded that:
 - The 60 mgd Lake Gaston Pipeline will only provide 54 mgd of available treated water safe yield due to pipeline transmission losses;⁸
 - The five-city area of Chesapeake, Norfolk, Suffolk, Portsmouth, and Virginia Beach is growing faster than previously projected, thus increasing long term water demand needs;⁹
 - Per capita water consumption in Virginia Beach is very low (about 89 gpd) relative to state and national averages, due to present water use restrictions -- the national average is 185 gpd and the average for the adjacent cities of Norfolk and Portsmouth is about 160 gpd. FERC stated that "(w)e would expect the per capita water use in the urbanizing cities (Virginia Beach, Chesapeake, and Suffolk) to increase as they become independent employment centers and their proportion of non-residential water use increases;"¹⁰
 - Virginia Beach, the State's largest city, has no independent water supply and the emergency wells drilled by the City during the 1980-81 drought cannot be relied upon in the future to provide any safe yield water;¹¹
 - With regard to the Navy's two emergency supply wells, FERC stated that "(t)he Navy restricts use

⁷Quoted in January 1995 FERC DEIS at page 1-5.

⁸January 1995 FERC DEIS, page i.

⁹January 1995 FERC DEIS, pages 1-8 to 1-10.

¹⁰January 1995 FERC DEIS, pages 1-10 and 1-11.

¹¹January 1995 FERC DEIS, page 1-13.

of these wells to droughts that threaten military readiness, and therefore, (they) are not included in our safe yield calculations."¹²

- In addressing long term water supply deficits for the five-city area, FERC stated: "We adopt the Corps' criteria and estimate that the five-city area would need 48 mgd of additional water to avoid water rationing and 71 mgd of additional water to avoid water use restrictions during droughts." (parentheticals omitted);¹³
- In concluding that the Lake Gaston Pipeline project was needed to help address long term water supply deficits in the five-city area, FERC found that: "Mandatory water use restrictions could be avoided by providing an additional 71 mgd of water. Although 71 mgd would meet acceptable risk levels, decisions on whether to supply an additional 71 mgd to the five-city area needs (sic) to be balanced against the environmental consequences of developing that supply."¹⁴
- ◆ March 13, 1995: Virginia Beach provides official comments to FERC on the January 1995 DEIS, stating that:
 - "the (FERC) deficit water calculation is subject to several sources of underestimation, such as its use of inaccurately high safe yield estimates."¹⁵
 - "The City believes that FERC's population projection is lower than that which likely will occur through the year 2030."¹⁶
 - "FERC's deficit estimate is highly sensitive to the (per capita) value it uses here. With a value of 130 gpd, which is closer to but still less than the Virginia average, the 2030 treated water demand would be 11 mgd greater than FERC projected."¹⁷

¹²January 1995 FERC DEIS, page 1-15.

¹³January 1995 FERC DEIS, page 1-17.

¹⁴January 1995 FERC DEIS, page 1-18.

¹⁵March 13, 1995 Virginia Beach comments, page 1.

¹⁶March 13, 1995 FERC DEIS Comments, page 1.

¹⁷March 13, 1995 FERC DEIS Comments, pages 2-3.

- "(E)xcept in the early days of the project when supply will be greater than demand, the Lake Gaston Project will not eliminate the need for Virginia Beach or Chesapeake to restrict water use. Norfolk has been required to implement water restriction measures on numerous occasions when demand was less than the theoretical safe yield of the system. With projected system demands during the period 2000-2010, Virginia Beach, Norfolk and Chesapeake will be required to institute water use restrictions during severe droughts just as occurs now, even with a fully operational Lake Gaston Project."¹⁸

- ◆ April 27, 1995: The City of Virginia Beach writes to the Federal Energy REGULATORY Commission replying to issues raised by the State of North Carolina in the proceedings on VEPCO's pending federal power license amendment application. In the letter, the City of Virginia Beach states that:
 - "The City wishes to stress that the water supply situation in southeast Virginia is critical."

- ◆ April 28, 1995: The City of Virginia Beach and the State of North Carolina enter into a Settlement Agreement designed to resolve all pending Lake Gaston Pipeline litigation. The Settlement Agreement requires, among other things, that:
 - The creation of a bi-state Water Advisory Commission;
 - Approval of portions of the settlement by the General Assemblies of both North Carolina and Virginia;
 - Approval of VEPCO's federal power license amendment by the Federal Energy Regulatory Commission;
 - Approval by the U.S. Army Corps of Engineers;
 - Approval by the U.S. Senators from both states;
 - Approvals and agreements to be reached with other municipalities, such as Norfolk and Chesapeake; and
 - All settlement contingencies must be resolved on or before June 27, 1995.

¹⁸March 13, 1995 FERC DEIS Comments, page 9 (emphasis added).

- ◆ May 11, 1995: News reports indicate that negotiations between the City of Virginia Beach and Norfolk regarding the Settlement Agreement are not going well and that the Governor of Virginia may not call the required special session of the Virginia General Assembly.
- ◆ Mid-May, 1995: Additional news reports indicate that negotiations involving Virginia Beach and Norfolk are at an impasse and the June 27, 1995 deadline likely will not be met.
- ◆ May 25, 1995: Numerous Virginia cities and counties file in Federal District Court for the District of Columbia challenging the Lake Gaston Settlement Agreement as unconstitutional and asking that the Court rule that the agreement is void.
- ◆ May 31, 1995: News reports quote Virginia Beach officials as saying that even with Lake Gaston Pipeline water, Virginia Beach may need additional sources of water in only 10-12 years.



The page contains extremely faint and illegible text, likely bleed-through from the reverse side of the document. The text is scattered across the page and cannot be transcribed accurately.

Document Separator

Nurre, Deirdre

From: Brubaker, Jim
To: Nurre, Deirdre
Cc: Yellin, Alex
Subject: Air Conforfity
Date: Tuesday, June 06, 1995 6:12PM

Deirdre

On June 6, 1995 a group of people representing the Cherry Point Community were onboard representing their interests concerning the 1995 DOD redirect of NAS Cecil F/A-18's. Among the things they wanted to discuss, was Mr Nemfakos's letter of May 19,1995 to Chairman Dixon, re: Oceana air conformity general discussion, ECTS # 950524-8. Obviously since you were not present we collected some documentation for your review. Their point of contact on this issue is a Mr. Clark Wright of "Ward & Smith, P.A.", and can be reached at (919)633-1000. When you return could you please give him a call and discuss with him the air quality/air conformity issues of Oceana with him. If you've got any questions, please don't hesitate to bring them to my attention.

Thanks,

Bru

P.S. For planning I'll be on a base visit to NAS Meridian on the 8'th of June and will return to Washington on Friday the 9'th. I'll also be in the office on the weekend of the 10'th &11'th of June as well.

Nurre, Deirdre

From: Flippen, Ed
To: Bivins, Bob; Cook, Bob; Nurre, Deirdre
Subject: Cherry Point Meeting
Date: Tuesday, June 06, 1995 12:26PM

On 6/6 I attended a meeting with the Navy Team and the Cherry Point community group..

Major community concerns were;

In the Cecil redirect, changing receiver from Cherry to Oceana
incorrect number of aircraft used in COBRA data which gave incorrect milcon avoidance figures
incorrect numbers of available or required housing and VHA allowances

air quality determinations in the Oceana area
water availability in the Oceana area

I'm sure Alex or Jim Brubaker will be contacting the distinguished Cobra and Environmental members of the Inter Agency Issues Team

ED

Nurre, Deirdre

From: Flippen, Ed
To: Cook, Bob; Nurre, Deirdre
Subject: Springfield-Beckley
Date: Monday, June 05, 1995 2:46PM

On June 5, 1995, I attended a meeting with the community group from Springfield which included reps of the governor and congressman.

An issue that they raised was environmental concerns at Wright Patterson, the proposed receiver base, not for aircraft, but for support ops such as a paint shop. Lead paint removal and asbestos were also mentioned.

Craig Hall is doing a base visit to Wright Pat and Springfield on 6/6, he may bring these issues up to the distinguished environmental representative of the Renowned Inter Agency Issues Team.

Hope ya'll had good trips

Mr ED

Document Separator

MCAS CHERRY POINT, NC

THE NAVY HAS PROPOSED REDIRECTING PLANES TO NAS OCEANA, VA THAT WERE PLANNED IN 1993 FOR RELOCATION TO MCAS CHERRY POINT, NC AND NAS LEMOORE, CA. EXCESS CAPACITY HAS BEEN CREATED AT OCEANA SINCE THE 1993 BRAC ROUND BY THE RETIREMENT OF A-6 AND F-14 AIRCRAFT. BY USING THIS CAPACITY THE NAVY WILL SAVE MOST OF THE SUBSTANTIAL CONSTRUCTION PLANNED FOR CHERRY POINT AND LEMOORE.

1993 RECOMMENDATIONS In 1993 the Commission closed NAS Cecil Field, FL and moved all of its active duty F/A-18 squadrons to Marine Corps Air Station Cherry Point, NC. This was the longest payback (13 years) of any of the Navy's major closures in 1993, primarily due to the size of the construction required at Cherry Point. In 1993 the Commission compared the cost of moving these units to NAS Oceana, VA with the cost at Cherry Point and found them comparable. An additional Navy action in 1993 moved the F-14s from NAS Miramar, CA to NAS Lemoore, CA to make room at Miramar for planes from the closing MCAS EL Toro, CA.

FORCE STRUCTURE CHANGES Since 1993 the Navy has announced an accelerated retirement schedule for A-6s and F-14s. This creates a large amount of excess space at Oceana because they are the primary planes based there. Most of this excess capacity at Oceana was not available for consideration in 1993 because the force structure reduction plans did not eliminate them in our analysis window (through 1999). Therefore, the high construction cost estimates done in 1993 for Oceana are no longer valid. The staff has reviewed the Navy's 1995 construction estimates to support the redirect (\$28.4 mil at Oceana and \$32.3 mil at Jacksonville) and they are reasonable. The staff has reviewed the construction cost projected for implementing the 1993 recommendation at Cherry Point (\$332.3 mil included as cost avoidances in the current COBRA). These costs include facilities no longer needed due to force structure reductions since 1993 and we have asked the Navy to revise them. The reduction, however, is not expected to make a substantial change in the construction requirements at Cherry Point and the construction cost differential for the redirect is expected to remain over \$200 mil.

JOINT OPERATIONS The Navy Dept. noted in their justification for the 1993 Cherry Point decision that the movement of Navy aircraft to Cherry Point was consistent with the recent decision to have more Marine squadrons participate in Navy carrier operations. The joint operations potential of the 1993 decision was limited because the Marine Corps squadrons planned for carrier operations were located at Beaufort, SC not Cherry Point. The 1995 redirect actually provides greater joint operating potential by moving two of the Navy's F/A-18 squadrons to Beaufort.

PRIOR DOD SPENDING The Navy has spent planning funds to implement several 1993 recommendations which they now want to change. The Navy considers the funds spent are sunk costs and not a consideration; staff agrees that the valid issue is to examine funds still to be spent. The cost of planning the new construction that the redirect will require is included in the COBRA. The costs that communities and commercial sources incur in anticipation of a BRAC recommendation's implementation have not been considered in the past by the Commission, in the same way we do not consider a community's costs related to a closure.

ENVIRONMENTAL ISSUES The Cherry Point community has commented on air quality, water availability and congestion at Oceana. The Navy has responded that the aircraft and personnel loading proposed at Oceana is less than the base's actual figures in the '90-91 timeframe. Considering this and the overall substantial force structure reductions planned by the Navy in the Norfolk area, the Navy believes that none of the environmental concerns would have any effect on their ability to implement the redirect or operate the units after they arrive. The staff is still reviewing the documents recently provided by the Cherry Point community. While it is difficult to judge air quality conformity prior to a formal determination by the Navy, the staff does not currently believe that the air quality and other environmental concerns are reasons to reject the Navy's redirect.

AIRCRAFT RETIREMENT UNCERTAINTY Concerning the Navy Times article which discusses potential delays in retirement of A-6 and F-14 aircraft. It is our understanding that the reductions at Oceana are still planned; the cover article of the June 19 Navy Times is about the A-6 retirement and does not mention delay. The Navy has disestablished the A-6 training squadron and has not made plans to create a new A-6 maintenance facility, which is now at the closing depot in Norfolk. The article is very speculative, but does highlight one consistent issue - overall budget problems - that the redirect helps by eliminating very significant construction costs planned for Cherry Point.

S A YELLIN, 13JUN95

Document Separator

Nurre



DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20350-1000

LT-0768-F15
BSAT/BL
19 May 1995

The Honorable Alan J. Dixon
Chairman, Defense Base Closure
and Realignment Commission
1700 North Moore Street
Suite 1425
Arlington, VA 22209

Dear Chairman Dixon:

This is in response to a request from Deirdre Nurre of your staff for information regarding air conformity at NAS Oceana.

Ms. Nurre submitted a list of questions pertaining to the current status of the air conformity determination which may be needed due to the transfer of additional aircraft and personnel into the Norfolk area. Additionally, she requested information on the air quality status of NAS Oceana. Her questions and our answers are provided in the attachment. We have provided the certified data that addresses the air quality for NAS Oceana. However, no information on a conformity determination could be provided since one has not yet been initiated. The potential additions or deletions to the base closure list by the commission and the input from operational commanders on specific transfers of personnel and aircraft following enactment of the recommendations, deem a conformity determination premature at this time.

As always, if I can be of any further assistance, please let me know.

Sincerely,



Charles P. Nemfakos
Vice Chairman,
Base Structure Evaluation Committee

Attachment

QUESTIONS FROM BRAC COMMISSION (DIEDRE NURRE) REGARDING RECEIPT OF ADDITIONAL FLYING MISSIONS AT OCEANA AND THEIR IMPACT ON AIR CONFORMITY:

Question 1. Has a conformity determination been drafted in anticipation of the receipt of additional planes and personnel at Oceana? If not, has one been initiated? Has the local air district been contacted to work with the Navy on the conformity determination?

Answer: The requirement for executing a conformity determination does not apply until the Navy executes, or prepares to execute a Federal action. Considering the steps of the Base Closure process, until the recommendations become law and the potential for change during Base Closure process ceases, any work on a conformity determination at this time would be premature. The conformity determination has not been initiated and the local air district has not been contacted.

Question 2. What is the baseline year for conformity purposes? Is it the 1990 baseline, or has a more recent SIP been passed which should be used as a baseline?

Answer: The baseline year for conformity is 1990.

Question 3. What is the current attainment/nonattainment status of the local air district for the 6 criteria pollutants? Please state level of nonattainment, if it applies (marginal, moderate, serious, etc).

Answer:

Pollutant	Attainment	Non-Attainment
CO	X	
Ozone		Marginal
PM-10	X	
SO2	X	
NO2	X	
Pb	X	

Question 4. What is the number of planes and personnel coming to Oceana as a result of the BRAC-95 proposed redirect?

Answer:

The numbers of aircraft and personnel that would relocate to Oceana as a result of the BRAC 95 recommendations will be determined by the operational commander and refined through the budget process. However, for the purpose of our analysis, we assumed seven F-14 squadrons, eight A-6 squadrons, an A-6 RAG, and 1 adversary squadron were leaving for a total of 228 aircraft, with eight F/A-18 squadrons, an F/A-18 RAG, and four F-14 squadrons, or 202 aircraft, were transferring into Oceana, between FY 1990 and FY 2001. The personnel moves into and out of the greater Norfolk area, between FY 1995 and FY 2001, netted an eleven thousand personnel decrease. This figure also reflects decreases outside the base closure process, due to force structure downsizing.

Question 5. What estimates of emissions in tons/year, if any were the basis for the statement in the March 95 "DOD Base Closure and Realignment Report" that a conformity determination would be needed as a result of redirects?

Answer: The order of magnitude of emission data for 1992/93, which was provided in certified data, indicated that a conformity determination may be required.

	NOx (tpy)	VOC (tpy)
1992	2593	2177
1993	2788	2109

Since no conformity determination was performed and no calculation of emissions was initiated, no estimates can be provided. It is not known if NOx and VOC emissions will fall above or below the de minimus levels for NOx and VOC, or 100 tons/yr each. However, using 1990 as a baseline, coupled with offsets, it is possible that a conformity review for the BRAC 95 recommendation will be below threshold levels and a conformity determination will not be required.

Question 6. If declining numbers of planes and people are contemplated as a possible offset for conformity purposes, what were the years in which these losses took place? Was this offset sufficient to make up for BRAC 95 gains? (Note: this is the type issue that a conformity determination would document.)

Answer:

See answer to question four. The DON's Base Closure analysis of air quality impacts was a macro look at long term trends in air quality. When the conformity determination is conducted, it will seek to look at projected impacts over a wide range of years, many of which are in the future. Operational commanders will have to determine the times and dates of actual aircraft and personnel transfer, once the 1995 Base Closure recommendation becomes law. Any analysis needing outyear data would be premature at this time.

Examining the specific years of the reduction in planes, personnel, and ships within the Hampton Roads air quality control district will be part of the analysis conducted in support of a conformity determination. The analysis conducted looked at net aircraft and personnel changes between FY 1995 and FY 2001 and did not look at individual year impacts.

Question 7. Who can Commission staff call at Oceana, the local air district, and U.S. EPA regional office to discuss these conformity questions?

Answer:

These questions relate to recommended actions, which will/may not be law until the end of the BRAC 1995 process (Sept 95). As such, there is no requirement to initiate a conformity determination prior to Sept 95 because (1) until that time the realignment is only a recommendation, and (2) operational commander input will be required to determine exact numbers of planes, ships and personnel movement involved. A point of contact at the Navy's Engineering Field Division, who oversees air quality issues at Oceana is Mr. Dan Cecchini at (804)322-4891. No contact has been initiated with the local air district or EPA.

ATTACHMENT C-5

RECOMMENDATION FOR REALIGNMENT

NAVAL AIR STATION, CECIL FIELD, FLORIDA REDIRECT

Recommendation: Change the receiving sites specified by the 1993 Commission (1993 Commission Report, at page 1-20) from "Marine Corps Air Station, Cherry Point, North Carolina; Naval Air Station, Oceana, Virginia; and Marine Corps Air Station, Beaufort, South Carolina" to "other naval air stations, primarily Naval Air Station, Oceana, Virginia; Marine Corps Air Station, Beaufort, South Carolina; Naval Air Station, Jacksonville, Florida; and Naval Air Station, Atlanta, Georgia; or other Navy or Marine Corps Air Stations with the necessary capacity and support infrastructure." In addition, add the following: "To support Naval Air Station, Jacksonville, retain OLF Whitehouse, the Pinecastle target complex, and the Yellow Water family housing area."

Justification: Despite the large reduction in operational infrastructure accomplished during the 1993 round of base closure and realignment, since DON force structure experiences a reduction of over 10 percent by the year 2001, there continues to be additional excess capacity that must be eliminated. In evaluating operational bases, the goal was to retain only that infrastructure necessary to support the future force structure without impeding operational flexibility for deployment of that force. This recommended redirect achieves several important aims in furtherance of current Departmental policy and operational needs. First, it avoids the substantial new construction at MCAS Cherry Point that would be required if the F/A-18s from NAS Cecil Field were relocated there, which would add to existing excess capacity, and utilizes existing capacity at NAS Oceana. This avoidance and similar actions taken regarding other air stations are equivalent to the replacement plant value of an existing tactical aviation naval air station. Second, it permits collocation of all fixed wing carrier-based anti-submarine warfare (ASW) air assets in the Atlantic Fleet with the other aviation ASW assets at NAS Jacksonville and NAVSTA Mayport and support for those assets. Third, it permits recognition of the superior demographics for the Navy and Marine Corps reserves by relocation of reserve assets to Atlanta, Georgia.

Return on Investment: The total estimated one-time cost to implement this recommendation is \$66.6 million. The net of all costs and savings during the implementation period is a savings of \$335.1 million. Annual recurring savings after implementation are \$11.5 million with an immediate return on investment expected. The net present value of the costs and savings over 20 years is a savings of \$437.8 million.

Impacts:

Economic Impact on Communities: Since this action affects unexecuted relocations resulting from prior BRAC recommendations, it causes no net change in

THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION

EXECUTIVE CORRESPONDENCE TRACKING SYSTEM (ECTS) # 950613-35

FROM: FAIRCLOTH, LAUCH	TO: DIXON
FILE: SENATOR (NC)	TITLE: CHAIRMAN
ORGANIZATION: U.S. CONGRESS	ORGANIZATION: DBCRC
INSTALLATION (S) DISCUSSED: CHERRY POINT, OCEAWA	

OFFICE OF THE CHAIRMAN	FYI	ACTION	INIT	COMMISSION MEMBERS	FYI	ACTION	INIT
CHAIRMAN DIXON				COMMISSIONER CORNELLA	✓		
STAFF DIRECTOR	✓			COMMISSIONER COX	✓		
EXECUTIVE DIRECTOR	✓			COMMISSIONER DAVIS	✓		
GENERAL COUNSEL	✓			COMMISSIONER KLING	✓		
MILITARY EXECUTIVE				COMMISSIONER MONTOYA	✓		
				COMMISSIONER ROBLES	✓		
DIR./CONGRESSIONAL LIAISON		Ⓢ		COMMISSIONER STEELE	✓		
DIR./COMMUNICATIONS				REVIEW AND ANALYSIS			
				DIRECTOR OF R & A	✓		
EXECUTIVE SECRETARIAT				ARMY TEAM LEADER			
				NAVY TEAM LEADER		X	
DIRECTOR OF ADMINISTRATION				AIR FORCE TEAM LEADER			
CHIEF FINANCIAL OFFICER				INTERAGENCY TEAM LEADER	✓		
DIRECTOR OF TRAVEL				CROSS SERVICE TEAM LEADER			
DIR./INFORMATION SERVICES				DEWORE, NURRE	✓		

TYPE OF ACTION REQUIRED

Ⓢ	Prepare Reply for Chairman's Signature		Prepare Reply for Commissioner's Signature
	Prepare Reply for Staff Director's Signature		Prepare Direct Response
X	ACTION: Offer Comments and/or Suggestions	✓	FYI

Subject/Remarks:

REQUESTING DBCRC PERFORM A THOROUGH ANALYSIS OF AIR QUALITY IMPACTS AT OCEAWA. POSE A SIGNIFICANT CONSTRAINT TO RELOCATING THE SQUADRONS TO WAS OCEAWA.

Date: 950616	Routing Date: 950613	Date Originated: 950613	Mail Date:
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United States Senate

WASHINGTON, DC 20510-3305

Please refer to this document
when responding 950613-35

June 13, 1995

The Honorable Alan J. Dixon
Chairman, BRAC Commission
1700 West Moore Street
Suite 1425
Arlington, VA 22209

RE: Adequacy of Air Quality Impacts Analysis re Proposed Redirect F/A-18's from
MCAS Cherry Point to NAS Oceana

Dear Chairman Dixon:

I am very concerned about the adequacy of the BRAC Commission's analysis of air quality impacts regarding the proposed redirect of the Navy F/A-18 squadrons from MCAS Cherry Point to NAS Oceana. I am convinced that a thorough analysis by the Commission of air quality impacts would lead to the conclusion that air quality conditions in the Hampton Roads area pose a significant constraint to relocating the squadrons to NAS Oceana.

The Navy concedes that it essentially has done no analysis of potential air quality impacts associated with the 1995 recommended redirect to NAS Oceana. No year-by-year analysis has been done to determine the magnitude of emissions in any given year, and the Navy concedes that there have been no discussions with federal, state or local officials to determine whether, and how, the Navy's present plans can be accommodated within state strategies without further endangering air quality in the Hampton Roads area.

As you may know, the Hampton Roads area is presently classified as an ozone nonattainment area. The area has registered several violations of the national ozone standard in recent years. The Environmental Protection Agency is in the process of "bumping up" the nonattainment classification of the Hampton Roads area to the more serious "moderate" category due to a failure to achieve the national ozone standard by November 15, 1993, as required by the Clean Air Act. Under the law, EPA must take this action. However, a last minute appeal by state and local officials has forestalled this required stiffening of air quality enforcement measures.

June 13, 1995
Page two

In a May 19, 1995 letter to you from Charles P. Nemfakos, the Navy points to a possibly accelerated phase-out of A-6 and F-14 aircrafts over the next five years as mitigating the air quality impacts of the proposed new F/A-18 squadrons at NAS Oceana. However, as indicated by a May 22, 1995 Navy Times article (copy attached), the retirement date for Navy A-6's and F-14's may be pushed back. As this article illustrates, there is no certainty as to what planes may be leaving Oceana, or when. What is certain, however, is that redirecting Cecil Field F/A-18 squadrons to Oceana would have a significant, negative impact on what already is an unacceptable air quality situation.

Ample evidence exists to indicate that air quality is a significant issue regarding the Commission's decision. On the one hand, NAS Oceana presents significant air quality issues to poor local air quality conditions in the Hampton Roads area. On the other hand, MCAS Cherry Point does not have any nonattainment air quality conditions and does not present any Clean Air Act problems in connection with receiving the Cecil Field F/A-18's. The bottom line is that the Navy has failed to provide the Commission with adequate air quality impact information to support its recommended redirect to NAS Oceana. More importantly, all available information confirms that MCAS Cherry Point is superior to NAS Oceana on this significant issue.

As discussed in my recent correspondence to EPA Administrator Browner (copy attached), the Commission itself may be required by the Clean Air Act to make a conformity determination regarding potential air quality impacts. Beyond that, the Commission clearly is obligated under its own enabling law to analyze and give due regard to all environmental impacts, including air quality impacts, in developing its final recommendations to the President. I am concerned that the inadequate analysis conducted to date has masked the true air quality problems posed by the proposed NAS Oceana "redirect".

I strongly urge the Commission to weigh each option carefully in terms of potential air quality impacts. I trust that the Commission will recognize that MCAS Cherry Point offers a distinct advantage over NAS Oceana in this regard. This is just one among several important reasons why the Commission should reject the 1995 DOD recommendation and affirm the 1993 BRAC Commission to assign the Cecil Field F/A-18 squadrons to MCAS Cherry Point.

Sincerely,



Lauch Faircloth

cc: Mr. Charles Smith

JET SHORTAGE STRIKES NAVY

By Robert Holzer

NORFOLK, Va. -- The Navy may slow the retirement of A-6 and F-14 aircraft or buy additional F/A-18 fighters to address looming shortfalls in the number of squadrons available to deploy with aircraft carriers later this decade, service officials said.

Aviation officials at Atlantic Fleet headquarters here and in Washington are struggling to come up with the proper mix of aircraft to address a shortfall of five squadrons of F/A-18 Hornet aircraft that will begin to affect naval operations as early as 1997, service officials said.

The issue will be resolved in the Navy's 1997 budget, said Adm. Mike Boorda, chief of naval operations. He said the issue now is under review and that various options are being assessed.

Whatever the solution, the Navy will fund it from its existing budget, Boorda said.

"I think we are going to do this within the resources and the dollars we have. We are not going to go out and say give us some more money to do this," Boorda said.

The extent of the shortfall was revealed over the last year when the impact of prior budget cuts became more clear, Navy officials said. Among the factors contributing to the problem:

---Decisions to reduce the funding required to support 22 aircraft squadrons on carriers.

---Reduced funding for F-14 upgrades.

---Accelerated retirements of A-6 aircraft, which were originally set to leave the fleet in 1999, but now planned to be retired by 1997.

"How serious it is is a tough question," Boorda said. "If we don't solve it, it would be real serious. If you have too few of something and you need more, but you don't get more, then you either have to do less or you have to work what you have harder. In this case we would have worked people so hard by deploying them too much."

If the shortfall is not addressed, then the Navy would be forced to deploy squadrons more frequently, violating the established operational tempo.

The Navy repeatedly exceeded these standards of six-month deployments followed by 18 months of shore duty during the late 1970s and thousands of highly skilled personnel left the service.

"If you start turning an air crew around with less than one year

ashore], suddenly this investment you've made in all of these air crews just walks out the door and now you are in a death spiral," Roger Whiteway, director of tactical training and requirements for the Atlantic Fleet, said.

Moreover, the decision to integrate up to three Marine Corps F/A-18 squadrons to help mitigate the effects of the shortfall has fallen short of expectations. That's because the Marines are in the process of reducing their overall number of F/A-18 squadrons and must still meet separate overseas requirements, service officials said.

"We still have the squadron shortfall even with the integration of three Marine Corps F/A-18 squadrons," Vice Adm. Richard Allen, commander of naval aviation in the Atlantic Fleet, said. "We still have a shortfall out there in the future. We are five squadrons short as we speak."

Whatever option is selected to redress the shortfall, there remains a manpower issue, Allen explained. In getting the aircraft, the Navy also will have to pay the cost of maintaining pilots and maintenance personnel that may have been retired or shifted elsewhere in the Navy.

"You don't just turn a spigot on and immediately get a pilot to go man a squadron," Allen said.

Accelerating production of the improved E/F version of the Hornet to address the shortfall is not a realistic option, Allen said, since production is already scheduled for 1997 and money is obligated for that.

More likely alternatives include keeping some A-6 and F-14 squadrons in the fleet longer than planned, buying more F/A-18 C/D aircraft or upgrading older F/A-18 A/B aircraft, Atlantic Fleet officials said.

"It could be considered as an option since there were 60 C/D aircraft taken out of the budget last year," Allen said.

Atlantic Fleet officials also want to assess whether the retirement date for some A-6s might be moved back to the 1999 time frame, Whiteway said.

"There may be political reasons for not moving the A-6s back to [1999], but we want to at least ask the question of what would it cost to keep them an extra [year or so]," Whiteway said.

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United States Senate

WASHINGTON, DC 20510-3305

June 8, 1995

Carol M. Browner
Administrator
U.S. Environmental Protection Agency
401 M. Street S.W.
Washington, D.C. 20460

RE: Applicability of Clean Air Act Conformity Requirements
to Proposed BRAC Decision to Redirect F/A-18 Squadrons
from MCAS Cherry Point to NAS Oceana

Dear Administrator Browner:

The purpose of this letter is to raise a matter of considerable urgency. Under the Base Closure and Realignment Act of 1990, 10 U.S.C. 2687, the Base Realignment and Closure Commission ("BRAC Commission") is required to make recommendations to the President by July 1, 1995, regarding the closure and realignment of military installations, equipment and personnel in accordance with the Force Structure Plan. As you may know, the 1993 BRAC process resulted in a decision to close Cecil Field in Florida. Among the actions now being considered by the 1995 BRAC Commission is a recommendation by the Department of Defense to redirect several F/A-18 Navy squadrons based at Cecil Field from MCAS Cherry Point in North Carolina to NAS Oceana in Virginia.

It is of great concern that the air quality impact of the proposed DOD "redirect" to NAS Oceana raises a significant issue under express BRAC Commission selection criteria and Clean Air Act general conformity requirements which has not been adequately addressed.

The Navy concedes that, at the present time, essentially no air quality impact analysis has been performed for this proposed redirect. The Navy has taken the position that any conformity analysis is premature until operational commanders determine the times and dates of actual aircraft and personnel transfer, after the 1995 BRAC Closure recommendations have become law.

Section 176(c) of the Clean Air Act mandates that any Federal agency which approves an action affecting air quality undertake such an analysis. I understand the question of military operations was considered in developing the general conformity

Carol M. Browner
June 8, 1995
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rule, and that an exemption for routine movements of ships and aircraft when no new support facilities or personnel are required was added to the final rule. I am advised that the BRAC process is not expressly exempt.

My concern over the apparent disregard of this requirement is heightened by existing air quality conditions of the proposed NAS Oceana receiving area. The Hampton Roads area, which includes NAS Oceana, is presently classified as nonattainment for ozone. Your agency is in the process of reclassifying the area from marginal to moderate due to the failure of the Hampton Roads area to attain the ozone standard by November 15, 1993, as required by the Clean Air Act. Under Section 181(b)(2) of the Act, by operation of law the Hampton Roads area must be reclassified as a moderate ozone nonattainment area. Given the nondiscretionary nature of such a reclassification, the area should be treated as a moderate nonattainment area for the purposes of any BRAC decision.

The combined impacts of the proposed NAS Oceana redirect, coupled with the expected growth surges associated with completion of the Lake Gaston pipeline water project, likely would worsen an already significant air quality problem. To my knowledge, the combined air quality impacts of these major developments have not been analyzed by any state or federal agency.

Unlike NAS Oceana, MCAS Cherry Point does not suffer from any nonattainment conditions and does not present significant Clean Air Act conformity problems in connection with assimilation of the Cecil Field F/A-18 squadrons.

I would like to know EPA's interpretation of the general conformity requirements as applied to 1995 BRAC decisions. Is a conformity determination or conformity analysis required prior to a BRAC decision? Given the timing of the BRAC Commission's action, a response to my urgent concerns at your earliest convenience prior to June 21, 1995, would be appreciated. Please direct your response to Sean Callinicos, telephone number 202-224-3783, the staff director of the Senate Subcommittee on Clean Air, Wetlands, Private Property, and Nuclear Safety, which I chair.

Sincerely,

A large, stylized handwritten signature in black ink that reads "Lauch Faircloth". The signature is written in a cursive style with a large loop at the beginning.

Lauch Faircloth

cc: Honorable Alan J. Dixon,
Chairman, BRAC Commission

bcc: Sean Callinicos

Document Separator

Tuesday
November 30, 1993

REGISTERED

Part II

**Environmental
Protection Agency**

40 CFR Parts 6, 51, and 93

**Determining Conformity of General
Federal Actions to State or Federal
Implementation Plans; Final Rule**

lead (Pb), nitrogen dioxide, ozone, particulate matter (PM-10), and sulfur dioxide (SO₂).

This rule does not apply to Federal procurement actions. The March 15, 1993 proposal was silent on the application of conformity requirements specifically to procurement actions, however, a number of comments were received on procurements. Although the comments generally indicated that procurements should be exempt from the final conformity rule, EPA is inclined to believe that Congress intended for certain procurement actions to be covered by the general conformity provisions. It is impossible at this time to resolve the competing concerns regarding which procurement actions should be covered and which should be exempt since the existing record is inadequate. Therefore, the EPA will propose to cover certain procurements in a future rulemaking, but will take comment on other interpretations.

The EPA will also propose exemptions for certain procurement actions which it believes would fit the de minimis criteria or result in emissions which are not reasonably foreseeable. The EPA believes the majority of procurement actions would be de minimis or not reasonably foreseeable. Given the complexity of Federal procurement and the government's desire to streamline procurement activities, the EPA will seek comment on its proposed exemptions and the process for applying conformity to procurement activities.

II. Background

The general conformity rule was proposed on March 15, 1993 (58 FR 13836). Additional background information can be found in the proposal notice.

Conformity is defined in section 176(c) of the Act as conformity to the SIP's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards, and that such activities will not:

- (1) Cause or contribute to any new violation of any standard in any area,
- (2) Increase the frequency or severity of any existing violation of any standard in any area, or
- (3) Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

The Act as amended in 1990 ties conformity to attainment and maintenance of the NAAQS. Thus, a Federal action must not adversely affect the timely attainment and maintenance

of the NAAQS or emission reduction progress plans leading to attainment. The Act as amended in 1990 includes a new emphasis of reconciling the emissions from Federal actions with the SIP, rather than simply providing for the implementation of SIP measures. This integration of Federal actions and air quality planning is intended to protect the integrity of the SIP by helping to ensure that SIP growth projections are not exceeded, emissions reduction progress targets are achieved, and air quality attainment and maintenance efforts are not undermined.

The rule amends part 51 of title 40 of the Code of Federal Regulations by adding a new subpart W. Part 51 is entitled: "Requirements for preparation, adoption, and submittal of implementation plans." Amendment to part 51 is necessary to require States to revise their implementation plans to include conformity requirements. Once the State plans are revised, the Federal agencies would be subject to those requirements.

In addition, the rule adds a new subpart B to part 93 of title 40 of the Code of Federal Regulations. This is necessary to make the conformity requirements apply to Federal agencies as soon as the rule is effective and in the interim period before the States revise their implementation plans. The part 93 requirements are identical to the part 51 requirements with one exception: they do not require a State to revise its implementation plan. To avoid duplication, the preamble language cites only the part 51 sections, however, the relevant part 51 discussion also applies to the equivalent part 93 rules.

As noted in the proposal (58 FR 13837), EPA promulgated conformity rules in 1979 and 1985 to implement the conformity provisions for EPA actions at 40 CFR 6.303. Today's final rule applies the conformity provisions of the Act as amended in 1990 to all Federal activities, including EPA activities. Thus, the conformity requirements of 40 CFR 6.303 are superseded by these rules. Accordingly, paragraphs (a) through (f) of 40 CFR 6.303 are replaced with a new paragraph (a) which refers to the conformity rules promulgated today and a new paragraph (b) which retains the requirements of (old) paragraph (g), which addresses other requirements of section 316(b) of the Act. The EPA is taking this action without specifically having proposed to make these changes to 40 CFR 6.303 in the March 15, 1993 proposal because the Agency views this as a noncontroversial action and anticipates no adverse comments. This action will be effective January 31, 1994 unless, by

December 30, 1993 notice is received that adverse or critical comments will be submitted regarding the changes to 40 CFR 6.303. If final action on the changes to 40 CFR 6.303 is delayed pending public comment, the requirements of the new part 51 and 93 rules will still supersede the requirements of 40 CFR 6.303.

III. Discussion of Major Issues and Response to Comments

For additional background information on the major issues, the reader should refer to 58 FR 13837-13847, March 15, 1993. Unless otherwise noted, the discussions in Sections III and IV below only address issues where public comments were received. For portions of the proposed rule where comments were not received, the final rule is consistent with the proposed rule for the reasons set forth in the proposal notice. Further discussion of such issues is not addressed in this preamble. Portions of the proposed rule were also changed so that the final rule more clearly states the intended meaning. Sections III and IV address issues in the same order as they were addressed in the proposal which is also consistent with the regulatory portion of this rulemaking notice.

A. Effective Dates

1. Proposal

The effective date of this rule was proposed to be 30 days after the final rulemaking notice is published. At that time, however, some projects that are dependent on Federal actions will have already commenced or completed planning activities, perhaps including their environmental assessment. Such projects would then be faced with the uncertainty of new conformity requirements that could not have been anticipated prior to the final rules being published. This uncertainty could threaten the viability of projects for which considerable time and funds already have been or are about to be invested.

The preamble to the proposal specifically invited comments on transition (or grandfathering) provisions for on-going projects that are dependent on Federal actions (58 FR 13837). Two options were proposed which would allow grandfathering based on activities that will have either already commenced or completed their environmental assessment by the time the final rulemaking notice is published.

2. Comment

The EPA received comments on this issue which recommended a variety of

implement that Federal action within a reasonable time. This 5-year provision also applies with respect to conformity determinations grandfathered as described above.

The information collection requirements in 40 CFR parts 51 and 93 have not yet been approved by the OMB and are not effective until OMB approves them.

B. SIP Revisions—State Authority

1. Proposal

As described in the March 15, 1993 preamble, EPA proposed that States may adopt criteria and procedures more stringent than the requirements in the EPA rules (58 FR 13838).

2. Comment

Several commenters supported EPA's view. These commenters stated that Federal agencies are to be afforded no special privileges and that the Act in no way prevents the imposition of more stringent control measures in instances where public health and welfare may be at risk.

Other commenters, however, stated that Federal agencies should not be held to a higher standard by State regulations than adjacent or nearby private or State activities. These comments suggest that this provision may be inconsistent with section 118 of the Act. Section 118 of the Act states that Federal agencies are to comply with State air pollution requirements "in the same manner and to the same extent as any nongovernmental entity." Since the general conformity requirement is not imposed on any non-Federal entity, these agencies argue that there is not a waiver of sovereign immunity which would allow State regulation of Federal activities in either sections 118 or 176 of the Act; therefore, these agencies argue, the Act does not permit States to set more stringent conformity requirements than those set by EPA. Some commented that multiple State rules would cause confusion to Federal agencies trying to meet the conformity requirements.

One comment stated that only areas designated "extreme" should be allowed to require more stringent State or regional general conformity rules in its SIP.

3. Response

In considering the comments received on this issue, EPA has taken the provisions of sections 116, 118 and 176(c) of the Act into account. The new language added to section 176(c) by the 1990 amendments to the Act makes it clear that the purpose of section 176(c)

is to make emissions from Federal actions consistent with the Act's air quality planning goals. The conformity requirement is different from most other requirements of the Act because it is imposed solely on Federal agencies, and is not required of nongovernmental entities. Therefore it is appropriate for EPA to establish the criteria and procedures for the conformity of Federal actions as specified by section 176(c)(4)(A) of the Act. It is also required that States adopt a SIP revision that includes these criteria and procedures, as indicated by section 176(c)(4)(C) of the Act. Furthermore, EPA interprets the requirements imposed by section 116 of the Act to mean that the criteria and procedures set by State conformity rules may not be any less stringent than those established by this rulemaking.

The EPA interprets the section 118 requirement that Federal agencies comply with air pollution requirements "in the same manner and to the same extent as any nongovernmental entity" to mean only that Federal agencies must comply with any air pollution rule established under the Act to no less an extent than nongovernmental entities. The general conformity rule and State rules adopted pursuant to it are rules established under the Act with which, under section 118, Federal agencies must comply. Consequently, EPA does not agree that there is no waiver of sovereign immunity at all in section 176(c). The EPA concludes that section 176(c)(4)(c) requires State conformity SIP's that would regulate Federal activities.

However, the language of the relevant sections does leave unclear the extent to which the waiver of sovereign immunity may limit the manner in which a State's section 116 authority is applied to Federal agencies. After careful consideration of the legal and policy arguments presented to EPA after the March 15, 1993 notice of proposed rulemaking (NPR), EPA has concluded that State conformity rules which do not apply to non-Federal entities and which apply more stringent requirements than the EPA general conformity rule to federally-assisted facilities would be inconsistent with the waiver of sovereign immunity provided by section 118 of the Act. Applying such rules exclusively to federally-assisted facilities, which could be the case with any more stringent conformity requirements since conformity requirements do not apply statutorily to nongovernment entities, would have an unjustifiably discriminatory effect. Under current case law, a reviewing court would construe waivers of

sovereign immunity, like that in section 118, narrowly. See *Department of Energy v. Ohio*, 112 S.Ct. 1627, 1633 (1992); *McMahon v. United States*, 342 U.S. 25, 26, 72 S.Ct. 17, 18 (1951). The EPA believes that such purely discriminatory more-stringent State programs would be prohibited under such case law.

The EPA recognizes that States have historically developed their own conformity requirements despite the absence of any Federal rules. Further, States have frequently adopted requirements that differ from State to State, both with respect to conformity and general air quality management, in order to address different air quality needs and regulatory authorities. There are several statements excerpted below from the congressional Record which support the conclusion that States may adopt conformity rules that are more stringent than the rules promulgated by EPA.

Such [Federal] regulations will provide guidance to the states for the adoption of conformity requirements in each SIP and will govern the conformity decisions of federal agencies and metropolitan planning organizations (MPOs) required to make conformity determinations. Federal agencies will also have to comply with applicable provisions of the SIP if stronger than the underlying basic federal regulations. Cong. Rec., S16958 (October 27, 1990) (Statement of Senator Chafee).

States are also free under section 116 to continue to apply any more stringent project review criteria in effect under state or local law. The criteria in section 176(c)(3) are merely the additional federal criteria that must be met to qualify for federal approval or funding of transportation projects, programs, and plans prior to the date when a revised implementation plan takes effect under these amendments. Cong. Rec., S16973 (October 27, 1990) (Statement of Senator Baucus).

Such regulations will provide guidance to the states for the adoption of conformity requirements in each SIP and will govern the conformity decisions of federal agencies and MPOs required to make conformity decisions. Federal agencies will also have to comply with applicable provisions of the SIP if stronger than the underlying basic federal regulations." Cong. Rec., S16973 (October 27, 1990) (Statement of Senator Baucus).

Consequently, the EPA believes that if a State wishes to apply more stringent conformity rules for the purpose of attaining air quality, it may do so, but only if the same conformity requirements are imposed on non-Federal as well as Federal actions. States adopting more stringent conformity rules may not cause a more significant or unusual obstacle to Federal agencies than non-Federal agencies for the same type of action.

(4) It establishes an overly broad role for the Federal government in attaining the NAAQS.

b. Inclusive definition—enforcement. The EPA sees no value to the environment in promulgating a rule that is unenforceable. The EPA agrees with the point made by some commenters that it is unreasonable to expect Federal agencies to control indirect emissions over which they have no continuing authority to control. As stated in the March 15, 1993 preamble, this approach might result in a Federal agency imposing conditions on the project (e.g., mitigation) to demonstrate conformity that would be meaningless since there would be no effective Federal enforcement mechanism.

For example, the inclusive approach could require a Federal agency to impose restrictions on the title to land that is being sold or developed. In such cases these deed restrictions might remain forever with the land. Enforcement of these types of restrictions is very difficult and is not likely to be an effective approach. Further, it is not reasonable to attach a restriction to a deed forever, since the land use might change over time and, certainly, the environment will change over time—both of which may remove or alter the need for the deed restriction, which would nonetheless remain in place since there is no mechanism to remove it. In this example, EPA believes that it is impractical to use deed restrictions to control emissions and that the Federal agency would not maintain control since there is no continuing program responsibility for that Federal agency to control future emissions associated with that land.

c. Inclusive definition—transportation. In the inclusive approach, the Federal agency is made responsible for emissions that are reasonably foreseeable. This would include emissions from on-site or off-site facilities. Assume, for example, that the Federal Aviation Administration (FAA) approves an airport expansion project which would require a general conformity determination. The airport expansion also includes a highway interchange construction project needing a project level transportation conformity approval. Additionally, it is known that a cargo handling facility will be constructed near that interchange due to the airport expansion. The project level transportation conformity review would cover emissions from vehicle activity to and on the highway interchange, but would not cover indirect emissions possibly associated with the airport or cargo facility. Thus, the project level

transportation conformity review covers direct and certain indirect emissions associated with the highway interchange action itself.

The general conformity inclusive approach could rely on the transportation conformity review with respect to vehicle activity to and on the highway interchange. In addition, the general conformity inclusive approach would specifically consider direct and indirect emissions at the airport itself and at the cargo facility. In contrast, the exclusive approach, similar to the project level transportation conformity approach, covers direct and certain indirect emissions associated with the airport expansion action itself, but does not specifically consider additional indirect emissions (i.e., the cargo facility). Thus, the exclusive approach appears to be more consistent with the transportation conformity approach.

d. Inclusive definition—unreasonable burden. The inclusive definition could be interpreted to include virtually all Federal activities, since all Federal activities could be argued to give rise to, at least in some remote way, an action that ultimately emits pollution. This broadest interpretation of the statute could impose an unreasonable burden on the Federal agencies and private entities that would have been affected by that definition. For example, since the Federal government issues licenses for any export activities, an inclusive definition approach could go so far as to require the manufacture of the export material and the transportation of the same material to be subject to a conformity review. Such an approach, however, is very burdensome due to the large number of export activities, the fact that the licensing process is not a factor in any SIP, and that the vast majority of these manufacturing and transportation activities may have little to no impact on air quality. Thus, the inclusive approach goes far beyond the set of Federal activities reasonably related to the SIP.

The many Federal agencies subject to the inclusive approach would have been required to document air quality impacts from tens of thousands of public and private business activities each year, even where the associated Federal action is extremely minor. For example, the Army Corps of Engineers (COE) estimates that 65,000 of their regulatory actions would have required a conformity review in 1992 under the inclusive definition. The COE permits are often limited to a small portion of a much larger project and, thus, may not be the best mechanism to review the larger project: e.g., one river crossing for a 500 mile gas pipeline or a half-acre

wetland fill for a twenty acre shopping mall.

The Federal agencies might also have been required to expend substantial resources in an attempt to enforce mitigation measures for actions that are outside their jurisdiction. Some delay to these public and private activities would have been expected as the conformity requirements were carried out. In some cases these Federal actions would not take place at all as a result of conformity consideration. In addition, the threat of litigation over this expansive list of actions would have been significant. That is, projects could have been delayed through litigation simply due to arguments over application of the conformity rule to the project, even where the air quality impacts were very minor.

Through public comments and by communication with other Federal agencies, the EPA received a large number of examples of Federal activities, a few of which are listed below, that are not normally considered in SIP's, but could not clearly be said to have absolutely no ties to actions that result in emissions of pollutants.

- (1) COE permit actions.
- (2) The sale of Federal land.
- (3) National Pollutant Discharge Elimination System (NPDES) permit issuance.
- (4) Transmission of electrical power.
- (5) Export license actions.
- (6) Bank failures.
- (7) Mortgage insurance.

Based on the public comments and consultation with the other Federal agencies, EPA believes that Congress did not intend the general conformity rule to affect innumerable Federal actions, impose analytical requirements on activities that are very minor in terms of Federal involvement and air quality impacts, and result in the significant expense and delay that is likely in an inclusive definition. Thus, adopting the inclusive definition approach could have imposed an unreasonable burden on these public and private activities.

The Federal agencies would, in many cases, be unable to reduce emissions from sources that they cannot practically control. This would result in the Federal action having to be prohibited because a positive conformity determination could not be made. The EPA believes that the Act does not intend to unreasonably restrict Federal actions so that they are generally prohibited in areas with air quality problems. Instead, the Federal agencies are required to control emissions in a reasonable manner and

nearby but on privately-owned land. In this case, emissions from the construction and operation of the resort are a continuing program responsibility of the Forest Service and emissions from the housing activities are not. Again, if the Forest Service had authority to impose conditions on activities at the housing development and chose to exercise that authority to impose conditions that would result in air pollutant emissions, air emissions from those conditions imposed would be within the Forest Service's continuing program responsibility.

With respect to the issue of indirect emissions, the proposal pointed to the language in section 176(c)(1) of the Act which prohibits a Federal agency from providing "support in any way" [for] any activity which does not conform to an implementation plan." "Conformity to an implementation plan" is defined to mean that an activity "will not—cause or contribute to any new violation"; increase the frequency or severity of any existing violation; or delay timely attainment of any standard."

Given the "support in any way" language, EPA has, in this rule, interpreted section 176(c) of the Act as requiring Federal agencies, in making their conformity determinations, to consider both the direct and indirect emissions resulting from their own actions or from actions that they support. However, nothing in those words serves to clarify a precise congressional intent regarding the scope of coverage of indirect emissions [a term which is not expressly referred to in section 176(c)(1) of the Act]. In other words, the words "support in any way" do not, in themselves, dictate a congressional preference between the inclusive or exclusive definition of indirect emissions proposed by EPA. The exclusive definition, which this final conformity rule adopts, requires that Federal agencies take into account only those indirect emissions that the Federal action would support, that the Federal agency can practicably control, and are under the continuing program responsibility of the agency. The EPA believes this interpretation is the most reasonable because it assures that Congress' primary intent under section 176(c) of the Act is met, namely, that Federal agencies advance the purpose of the SIP by controlling emissions from those actions which they support, over which they can practicably exercise control, and for which they retain continuing program responsibility.

The Clean Air Act does not define "support" for the purposes of section

176(c) of the Act.² If read in the broadest conceivable manner, the "support in any way" prohibition might be interpreted to include virtually all Federal activities, since all Federal activities could be argued to support, at least in some remote way, an action that ultimately emits pollution. The EPA does not believe that Congress intended the "support in any way" prohibition to be interpreted in a manner that would lead to such egregious or absurd applications of section 176(c) of the Act. Where the language of a statute is ambiguous, as is the case here, an agency has the discretion to adopt an interpretation that is reasonable.³

One possible approach in determining how far the "support in any way" prohibition extends is to examine the word "support" itself. Section 176(c)(1) of the Act, by its terms, prohibits Federal agencies from "support[ing]" an activity which itself "does not conform to an implementation plan."⁴ Thus, the support prohibition cannot be triggered unless and until a Federal agency's actions constitute support of a particular activity. In the absence of a statutory definition for a word, courts typically turn to the word's everyday meaning. The dictionary defines "support" to mean (among other things):

- "to uphold by aid, countenance, or adherence: actively promote the interests or cause of";
 - "to uphold or defend as valid, right, just, or authoritative";
 - "to provide means, force, or strength that is secondary to: back up";
 - "to pay the costs of";
 - "to supply with the means of maintenance" or to earn or furnish funds for maintaining"; and
 - "to provide a basis for the existence or subsistence: serve as the source of material or immaterial supply" . . .
- Webster's Third New International Dictionary. As the above list makes evident, the everyday meaning of "support" could range from activity that is merely facilitation or encouragement to activity wherein the actor assumes an ongoing responsibility and provides continuing assistance in order for the subsequent endeavor to be realized. Applying the dictionary definition of "support" in the context of the conformity rule, it is apparent that Federal actions that might be said to

"support" subsequent projects similarly could range from mere facilitation to continuing responsibility. The EPA does not believe that Congress intended the term "support in any way" to encompass each and every one of these separate definitions, including those where the relationship between the Federal agency's action and the subsequent activity is attenuated. Thus, EPA believes it is reasonable to select a definition of "support" that focuses on the extent to which the Federal agency has continuing program responsibilities, and whether it can practicably control emissions from its own and other party activities. The exclusive definition requires Federal agencies to consider only those direct and indirect emissions over which, under their legal authorities, they can exercise and maintain practicable control and over which they have continuing program responsibilities. As noted previously, this approach is consistent with the purposes of section 176(c) of the Act. That section places certain prohibitions and responsibilities on Federal agencies. The EPA does not believe that Congress intended to extend the prohibitions and responsibilities to cases where, although licensing or approving action is a required initial step for a subsequent activity that causes emissions, the agency has no control over that subsequent activity, either because there is no continuing program responsibility or ability to practicably control. For that reason, EPA believes it is not reasonable to conclude that the Federal agency "supports" that later activity, within the meaning of section 176(c) of the Act.

As implemented by this rule, section 176(c) of the Act requires that a Federal agency ensure conformity with an approved state SIP for those air emissions that would be brought about by agency action, and that the agency can practicably control, and that are subject to a continuing program responsibility of that agency. A Federal agency has no responsibility to attempt to limit emissions that do not meet those tests, or that are outside the Federal agency's legal control. Moreover, neither section 176(c) of the Act nor this regulation requires that a Federal agency attempt to "leverage" its legal authority to influence or control nonfederal activities that it cannot practicably control, or that are not subject to a continuing program responsibility, or that lie outside the agency's legal authority.

For example, neither section 176(c) of the Act nor this regulation requires a Federal agency to withhold a Federal grant of financial assistance to a grant applicant that otherwise satisfies legal

² The general definitions section for part D of title I, section 171 (42 U.S.C. 7501), also does not define "support."

³ *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842-3 (1984).

⁴ Of course, section 176(c)(1) also prohibits Federal agencies from engaging in, providing financial assistance for, licensing or permitting, or approving, such activities.

volatile organic compounds (VOC) due to vehicle and airport related emissions, and (2) assume that the adjacent industrial park would emit 200 tons/year of VOC.

Under the exclusive definition, the FAA must show that the 50 tons/year of VOC from the airport related activities conforms to the SIP. The FAA, however, is not responsible for the 200 tons/year of VOC from the industrial park. The conformity rule provides several ways to show that the 50 tons/year of VOC conforms to the SIP:

(1) The airport expansion is specifically included in the applicable SIP's attainment demonstration,

(2) The 50 tons are offset by reductions obtained elsewhere by the FAA,

(3) The 50 tons are determined to be consistent with the SIP emission budget by the State air quality agency,

(4) The State commits to revise the SIP to accommodate the 50 tons,

(5) The airport expansion is included in the conforming transportation plan, or

(6) In some cases, it is demonstrated that there is no increase in emissions in a build/no build scenario. (Note that project-specific modeling for ozone is not generally considered an option since, as a technical matter, ozone models are not sufficiently precise to show such impacts unless the project is a large portion of the total area inventory.)

Example 2: In another case, the same airport expansion might be in a CO or PM-10 nonattainment area where a local scale modeling analysis is determined to be needed by the State agency primarily responsible for the SIP. In such cases, the modeling analysis must consider emissions due to the airport activity and emissions due to any existing sources, including background concentrations. Emissions from the future industrial park would not, however, be required as part of the modeling analysis since such emissions are not covered by the conformity rule.

Example 3: A Federal action to lease land to a private developer does not in itself have any immediate direct or indirect air pollution emissions. The lease does, however, allow future activities by the private developer on the leased Federal land that could result in indirect air pollution emissions. This can be seen clearly in cases where the leasing action is accompanied by a description of future activities that the developer plans to undertake on the leased Federal land which would result in emissions and where the lease contains emission limits imposed on the use of the leased Federal land. Where

the Federal agency has the authority to impose lease conditions controlling future activities on the leased Federal land, these emissions must be analyzed in the conformity determination.

Example 4: Where a COE permit is needed to fill a wetland so that a shopping center can be built on the fill, generally speaking, the COE could not practicably maintain control over and would not have a continuing program responsibility to control indirect emissions from subsequent construction, operation, or use of that shopping center. Therefore, only those emissions from the equipment and motor vehicles used in the filling operation, support equipment, and emissions from movement of the fill material itself would be included in the analysis. If such emissions are below the de minimis levels described below for applicability purposes (section 51.853), no conformity determination (section 51.858) would be required for the issuance of the dredge and fill permit.

i. Exclusive definition—types of Federal actions covered. The following types of Federal actions, among others, are likely to be subject to conformity review under the exclusive definition. Some of these actions are likely to be above the de minimis levels, controllable currently by the Federal agency, and the Federal agency will maintain an ability to control the emissions in the future through oversight activities.

(1) Prescribed burning activities by Federal agencies or on Federal lands: The burning is conducted by the Federal agency itself or is approved by the Federal agency, consistent with a Federal land management plan, and the Federal land manager maintains an oversight role in either case.

(2) Private actions taking place on Federal land under an approval, permit, or leasing agreement, such as mineral extraction, timber harvesting, or ski resort construction: A lease agreement, for example, may be subject to mitigation conditions as needed to show conformity and the Federal land manager will maintain an oversight role, including the enforcement of lease agreements. The conditions needed to show conformity would also be enforceable by the State and EPA through the SIP (as described elsewhere in this notice).

(3) Direct emissions from COE permit actions: The COE will evaluate the direct emissions from the activity involving the discharge of dredged or fill material. If these direct emissions were to exceed the de minimis level, the COE has legal authority to impose

permit conditions to control those emissions.

(4) Wastewater treatment plant construction or expansion actions: Construction projects funded by EPA may be conditioned so that the new treatment capacity conforms to growth assumptions in the SIP. The EPA maintains a continuing control authority since future expansion would need a new approval action. Emissions from this activity can be quantified and located only on a regional scale; they cannot be located in a precise manner and subject to a microscale analysis. Such emissions are nevertheless considered reasonably foreseeable, if only on a regional scale. The SIP planning generally takes into account the growth limiting effects of wastewater treatment capacity and, thus, changes to the capacity must be shown to conform to the SIP. This is an area where Congress clearly desires a conformity review, as evidenced by section 316 of the Act.

(5) Federal construction projects such as buildings, laboratories, and reservoirs on Federal land: Contracts to complete construction projects funded by GSA or other Federal agencies may be conditioned so that the new construction meets mitigation measures as needed to show conformity. The Federal contract manager would maintain an oversight role to assure that all the contract agreements are met.

(6) Project level minerals management leasing activities: The lease agreement may be structured as described in item b above.

(7) New airports or airport expansion actions: Grants to fund projects or approval by the FAA to build projects may be conditioned so that the new projects meet mitigation measures as needed to show conformity. Under FAA's funding statute, grants for new airports, new runways, and major runway extensions must include such conditions. The grant conditions are enforceable through the grant agreements. Failure of the airport owner/operator to comply with grant conditions may result in suspension or termination of Federal assistance.

(8) Actions taking place on Federal lands or in Federal facilities: The Federal agency has and will maintain the ability to control emissions in many other activities, such as activities in National Parks, on military bases, and in Federal office buildings.

j. Exclusive definition—types of Federal actions not covered. The following types of Federal actions, among others, are not covered by the conformity rule under the exclusive definition approach.

indirect source review programs under section 110(c) for certain federally assisted indirect sources. However, the EPA also believes that section 176(c) provides independent authority for EPA to require SIP revisions concerning conformity requirements that include provisions addressing indirect emissions resulting from Federal actions. Such provisions are necessary to prevent Federal actions, as required by section 176(c)(1)(B), from causing or contributing to NAAQS violations.

The EPA believes that the comments do not fully reflect the legislative history of the 1977 amendments to the Act regarding the congressional concerns that prompted adoption of section 110(a)(5)(A). The congressional Conference Committee report does indeed discuss attempts by EPA to promulgate measures controlling parking supply, but, unlike the commenters' statements, points out that these efforts came only after the EPA Administrator had determined that all the SIP's submitted to meet the 1970 Act requirements had failed to ensure maintenance of the NAAQS, especially those for motor vehicle-related pollutants. Congress objected to EPA's proposed parking restrictions, not simply because they were intended to control indirect sources, but primarily because Congress believed it was a misdirected attempt to reduce motor vehicle traffic that only succeeded in shifting the air pollution control emphasis away from the major source of the problem, namely the cars themselves.

[The EPA's] efforts based on indirect control of the use of automobiles through restrictions on parking lots, shopping centers and other indirect sources, rather than full and prompt controls for new autos, trucks, buses, and motorcycles are inherently inequitable. It transfers from the motor vehicle manufacturers to the public and to indirect source owners and operators the burden of protecting public health from dangerous vehicle emissions. H.R. Rep. No. 1975, 94th Cong., 2d Sess. 221 (1976).

So, while it is true that Congress sought to reverse these specific indirect source measures and, thereby, reallocate the regulatory burdens, it also acknowledged that even after new car emissions requirements were adopted, additional control measures would be needed by many nonattainment areas if the NAAQS were to be attained and maintained, and such measures could include regulation of indirect sources, such as "new facilities which attract heavy automobile traffic." *Id.* at 222. Consequently, although Congress restricted the Administrator's authority to require States to adopt an indirect

source review program, it purposely did not remove that authority completely. Again, as stated in the Conference report: "The Committee believes that its proposal meets the specifications . . . of an acceptable and workable program. It tightly restricts the Administrator's authority with respect to indirect sources by assuring that necessary review programs for non-federally assisted indirect sources will be designed and implemented by local and State governments." *Id.* at 227. And, as the report notes elsewhere: "Of course, the prohibitions on the Administrator's implementation and enforcement of a review program . . . are not applicable with respect to federally-owned or federally-assisted indirect sources." *Id.* at 224. Nothing in section 176(c), which is only concerned with federally-assisted actions, is inconsistent with this expression of Congress' intent with respect to section 110(a)(5). Moreover, the fact that the section 110(a)(5) prohibition and the requirement that Federal actions conform to the SIP under section 176(c) were both added when the Act was amended in 1977 does nothing to further the commenters' argument since it supports EPA's position as well. Given the thorough and detailed consideration Congress expended when it limited EPA's authority to review indirect sources, it would have been easy for Congress to add language in section 176(c) stating, for example, that the section 110(a)(5) restriction on indirect source review applied there also. Not only has Congress not limited this provision, but on the two separate occasions it has addressed section 176(c) of the Act it has consistently stated the scope of the provision's coverage requires a determination of conformity for "any activity" that a Federal agency "supports in any way." Indeed, EPA's view is consistent with the exception to the prohibition in section 110(a)(5) for federally-assisted, operated, or owned indirect sources, since section 176(c) of the Act applies only to actions supported or undertaken by Federal agencies. The EPA, therefore, concludes that the prohibition in section 110(a)(5) of the Act does not limit EPA's independent authority under section 176(c) of the Act.

The EPA also does not agree with the comment that the authority provided EPA under section 110(a)(5)(B) to control certain indirect sources is limited only to major indirect sources, such as the ones enumerated therein. The discussion in the legislative history strongly suggests that the use of the word "major" was not intended to

denote a limitation on the type of indirect sources EPA may review. Rather, the term as used merely describes certain large-scale, hence "major," projects of the type which, like the ones listed, normally qualify for Federal funding assistance. For example, the Conference Committee report states: "An exception to this [section 110(a)(5)] prohibition is made for major Federally funded public works projects such as highways and airports. . . ." S. Rep. No. 16, Vol. 3, 95th Cong., 2d Sess. 506 (1978). But other statements in the report show that EPA's review is not limited to such projects only: "The Administrator is prohibited from promulgating regulations relating to indirect source reviews except with respect to Federally assisted highways, airports or other indirect sources assisted, owned or operated by the Federal government." *Id.* at 4382 (Vol. 5)(emphasis added).

Moreover, the conformity rules regulate emissions, not local land use or zoning requirements. These rules do not infringe on the authority of local governments to control land use; rather, they restrain the ability of Federal agencies to support projects that cause certain air quality problems. Nothing in these rules inhibits the ability of local governments to set their own requirements with respect to such projects. Thus the conformity rules are not inconsistent with section 131 of the Act.

F. Indirect Emissions—Reasonably Foreseeable Emissions

1. Proposal

As described in the preamble to the March 15, 1993 proposal, the indirect emissions that are "reasonably foreseeable" must be identified at the time the conformity determination is required, though this would include emissions that would occur later in time and/or at a place other than the action itself. The proposal stated that an agency is not required to speculate or guess at potential future indirect emissions which are conceivable but not identifiable. In addition, the proposal indicated that descriptions of emissions contained in documents such as employment and financial forecasts and NEPA documents should be considered reasonably foreseeable emissions.

As described in the proposal, certain types of Federal actions occur on the programmatic level rather than on a project level, and the specific air quality and emissions impacts associated with individual projects under such programs may not be known. In instances where a Federal action is on

however, made it clear that EPA intended the concept to include future development activities associated with a Federal action, under either definition of indirect emissions. Under the exclusive definition, EPA proposed that consideration of such emissions would be limited to those future development activities which the Federal agency could control and would continue to maintain some authority to control.

2. Comment

The building industry commented that under *Atlantic Terminal Urban Renewal Area Coalition v. New York City Department of Environmental Protection*, 705 F. Supp. 988 (S.D.N.Y. 1989), the definition of Federal activity should be limited to the immediate Federal action, in that case a Department of Commerce (DOC) grant for demolition, and should not include any subsequent activities even where they are facilitated by the Federal action, in that case a subsequent housing development built on the site of the demolition. Several commenters also requested that EPA clarify which activities are covered under the conformity rule.

3. Response

The EPA does not agree that Federal actions should always be interpreted so narrowly. The EPA acknowledges that the court in *Atlantic Terminal* indicated in dicta that, in that case, the Federal activity under consideration should be limited to the demolition activity. However, that assessment was made in the context of a factual situation in which the subsequent development activity was being funded by a Department of Housing and Urban Development (HUD) block grant. The court based its decision on the unreasonable burden and duplicative efforts that would be placed on the Federal government should both DOC and HUD be required to analyze the same subsequent development. The court did not address the situation where only one Federal agency had jurisdiction over a project, and was not presented with the statutory language nor legislative history concerning transportation activities under the 1990 amendments to section 176(c) nor EPA's interpretation of Federal actions and indirect emissions (described below).

If it were the case that through an agency's approval of a demolition grant an agency were able to practicably control construction of the housing development, and had continuing program responsibility over such development, then EPA believes that the agency would have "supported" the

housing development by making the grant. For these reasons, EPA believes that a court specifically addressing the issue of the definition of Federal activity under such circumstances would not reach the same decision as in *Atlantic Terminal*.

In order to clarify which activities are covered under the general conformity rule, the final rule incorporates changes in the definitions of "Indirect emissions" (discussed in section III.C.) and "Federal action" (discussed below and in section IV.D.). The definition of "Federal action" is revised by adding the following sentence to the end of the definition in the proposal: Where the Federal action is a permit, license, or other approval for some aspect of a nonfederal undertaking, the relevant activity is the part, portion, or phase of the nonfederal undertaking that requires the Federal permit, license, or approval. The following examples illustrate the meaning of the revised definition.

Assume, for example, that the COE issues a permit and that permitted fill activity represents one phase of a larger nonfederal undertaking; i.e., the construction of an office building by a nonfederal entity. Under the conformity rule, the COE would be responsible for addressing all emissions from that one phase of the overall office development undertaking that the COE permits; i.e., the fill activity at the wetland site. However, the COE is not responsible for evaluating all emissions from later phases of the overall office development (the construction, operation, and use of the office building itself), because later phases generally are not within the COE's continuing program responsibility and generally cannot be practicably controlled by the COE.

In another case, assume the Forest Service permits a ski resort and imposes conditions on the construction and operation of the ski resort. Also assume that housing development will occur nearby but on privately-owned land. In this case, the conformity review might cover emissions due to construction and operation of the ski resort since they are activities permitted by the Forest Service. Emissions from the housing activities, however, would not generally be covered since the Forest Service does not generally take actions covering the portion of the overall development that is on privately-owned land and not subject to a Forest Service permit, license, or approve action.

H. Applicability—Attainment Areas

1. Proposal

As discussed in the preamble, EPA proposed to interpret the statute such

that the conformity rules apply only to nonattainment areas and those attainment areas subject to the maintenance plans required by section 175A of the Act (58 FR 13841).

2. Comment

The EPA received many comments which agreed with the proposal and many other comments stating that the statute should be read such that conformity requirements would apply in all or portions of attainment and unclassified areas as well. Similar comments were received arguing that conformity should not apply in attainment areas.

One commenter noted that development in attainment areas on the fringe of nonattainment areas is likely to increase the size of the nonattainment areas, increasing the impact on public health and welfare and necessitating more costly pollution control measures to retrofit sources. The commenter also stated that development in rural attainment areas, even many miles away from urban nonattainment areas, may delay timely attainment of the NAAQS or emission milestones in nonattainment areas. Another commenter cited an example of a conformity analysis in an attainment area which showed a Federal action would cause a new violation of the NAAQS unless mitigation measures were implemented and/or planning provisions were revised.

3. Response

In the proposal, EPA indicated that the statute was ambiguous with respect to whether conformity applied only in nonattainment areas, or in attainment areas as well. As noted above, EPA received significant public comment arguing that the statute should be read to apply conformity also in attainment areas, based on the wording of Act section 176(c)(1) and the policy merits of such applicability. Similar comments were received arguing that conformity did not apply in attainment areas.

The EPA continues to believe that the statute is ambiguous, and that it provides EPA discretionary authority to apply these general conformity procedures to both attainment and nonattainment areas. The EPA plans to carry out a separate rulemaking proposing to apply general conformity procedures to certain attainment areas. The EPA sees strong policy reasons not to apply conformity in all attainment areas, given the significant burden associated with making conformity determinations relative to the risk of NAAQS violations in clean areas. Thus, EPA believes that it would be

The de minimis level for lead is 25 tons/year in the final rule. The definition of major stationary source for lead is 100 tons/year. Relatively small increases in lead emissions, however (compared to other criteria pollutants) may threaten the lead standard; also, the level proposed for lead (0.6 tons/year) was proportionately much smaller than 100 tons/year. Therefore, a 100 ton/year level appears unprotective of the conformity requirement. The 25 ton/year value is based on the source size in 40 CFR part 51 that triggers an attainment demonstration requiring dispersion modeling.

The de minimis levels proposed were generally those used to define when modifications to existing stationary sources require preconstruction review. It was pointed out to EPA in comments on the proposal that these thresholds would result in the need to perform a conformity analysis and determination for projects that constituted a "modification" to an existing source but not a "major" source in some cases. The EPA agrees that conformity applies more appropriately to "major" sources and after careful consideration has decided to revise its original proposal in the final rule to use the emissions levels that define a major source, except as described above for lead. The definition of a major source under the amended Act is explained in more detail in the April 16, 1992 Federal Register in the EPA's General Preamble to Title I (57 FR 13498). Section 51.853(b)(3) of the rule has also been revised to remove the provision that would automatically lower the de minimis levels to that established for stationary sources by the local air quality agency. In keeping with its conclusion that only major sources should be subject to conformity review, EPA agrees that a zero emissions threshold, as established by some local agencies, should not be required by this rule.

Further, the EPA believes that Federal actions which are de minimis should not be required by this rule to make an applicability analysis. A different interpretation could result in an extremely wasteful process which generates vast numbers of useless conformity statements. Paragraphs (c) (1) and (2) of § 51.853 are added to the final rule to provide that de minimis actions are exempt from the requirements of this rule. Therefore, it is not necessary for a Federal agency to document emissions levels for a de minimis action. Actions that a Federal agency recognizes as clearly de minimis, such as actions that do not cause an increase in emissions, do not require a positive conformity determination.

Instead, such actions are exempt from the rule as provided in § 51.853(c)(1).

In order to illustrate and clarify that the de minimis levels exempt certain types of Federal actions, several de minimis exemptions are listed in § 51.853(c)(2). There are too many Federal actions that are de minimis to completely list in either the rule or this preamble. In addition to the list in the rule, the EPA believes that the following actions are illustrative of de minimis actions:

- (1) Routine monitoring and/or sampling of air, water, soils, effluent, etc.
- (2) Air traffic control activities and adopting approach, departure and enroute procedures for air operations.
- (3) Acquisition of properties through foreclosure and similar means.
- (4) Assistance or subsidy for social services such as health care, day care, or nutrition services, as well as payments under public assistance.
- (5) Deposit or account insurance for customers of financial institutions and flood insurance.
- (6) Routine installation and operation of aviation and maritime navigation aids.
- (7) Participating in "air shows" and "fly-overs" by military aircraft.
- (8) Educational and informational programs and activities.
- (9) Advisory and consultative activities, such as legal counselling and representation.
- (10) Construction of hiking trails.
- (11) Regeneration of an area to native tree species.
- (12) Timber stand and/or habitat improvement activities which do not include the use of herbicides, prescribed fire or do not require more than one mile of low standard road construction.

As noted above, the provisions in § 51.853(c) (or in § 51.853(d)-(e)) are not rebuttable presumptions and not subject to documentation since they are exemptions to the rule. The EPA believes that the nature of the exemptions listed in the rule, taken in context of the definitions of a Federal action and indirect emissions, which are limited to those actions over which the Federal agency has a continuing program responsibility and can practicably control, renders these actions truly de minimis and therefore exempt from conformity requirements.

The exemptions listed in § 51.853(d) are for actions that may be above the de minimis levels listed in § 51.853(b). The rationale for the exemptions listed in § 51.853(d)(1) for new source review (NSR) and prevention of significant deterioration (PSD) and § 51.853(d)(2) for emergencies is explained below. The

activities listed in § 51.853(d) (3) and (4) are related to air quality and necessary environmental regulations and, therefore, EPA believes they should be exempt. The exemption for certain CERCLA activities is discussed in the following section.

In contrast, the provisions of § 51.853(f) are presumptions of conformity that must be supported by documentation as provided in § 51.853, paragraphs (g) and (h) (which establish criteria and procedures for Federal agencies to develop additional categories of actions which would then be presumed to conform), and that they may be rebutted as provided in § 51.853(j).

J. Applicability—Exemptions and Presumptions of Conformity

1. Proposal

In addition to Federal actions with de minimis emission levels that do not require conformity determinations, EPA identified several types of Federal actions where EPA believed that conformity of such activities or a portion of such activities can be presumed. The NPR provided several cases where conformity is presumed (§ 51.853 (c) and (d)), including the following:

- (1) Actions subject to preconstruction NSR or PSD programs under the Act;
- (2) Wastewater treatment works projects funded by the State Revolving Fund (SRF) under the Clean Water Act;
- (3) Superfund activities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA);
- (4) Federal land transfers; and
- (5) National emergencies.

The proposal indicated that Federal actions identified under § 51.853, paragraph (c), are presumed to conform because the required air quality analyses that would be conducted under a conformity review must be completed to comply with other statutory requirements. That is, air quality analyses are required in the NSR programs under the Act and the applicable or relevant and appropriate standards process under the CERCLA. The EPA believes these analyses are adequate for purposes of conformity.

2. Comment

A number of commenters supported these provisions in the proposal, while others objected to them. Some commenters felt that the following actions should be subject to conformity review or that the proposed presumptions of conformity were too vague and need greater clarification:

removes the action from the province of "Federal action" and the Federal agency has no continuing authority to control the private entities' future activities. The DOD stated that, "Although [they] will analyze the impacts from reasonably foreseeable reuse proposals, the zoning of the property that allows the specific proposed reuse is determined by the local zoning authority." Furthermore, they said:

The purpose of the conformity requirement is to assure Federal agencies consult with state and local air quality districts to assure these regulatory authorities know about the expected impacts of Federal decisionmaking and can include expected emissions in their SIP emission budget. In a closure and reuse scenario, the future development plans of the community reuse group are known, approved, and supported by the local air regulators, subject of course to the reuse group meeting local air regulations for permits, mitigation, and so forth. When a community, working with local air regulators, has decided it desires to implement an economic recovery plan with associated air emissions and will adjust its emission budget to allow for such a plan, the rationale for locking DoD into conformity limitations is absent. Reuse is most appropriately a local decision, rather than a Federal decision, with local authorities evaluating the type of growth they want or need and adjusting their SIP allocations for new growth accordingly.

(3) *Response.* Under the exclusive definition of indirect emissions, Federal land transfers are unlikely to be covered since the Federal agency will not maintain authority over reuse activities on that land. Consequently, Federal land transfers are included in the regulatory list of actions that will not exceed the de minimis levels and thus are exempt from the final conformity rules.

f. Emergencies and transportation actions. (1) *Proposal.* Section 51.853, paragraph (d), proposed types of actions that would be presumed to conform (unless the Federal agency determines otherwise based on its own information or after reviewing any information presented to the Federal agency). Section 51.853, paragraph (d)(1), listed "temporary Federal actions in response to national emergencies." The proposal noted that this provision would cover Federal activities which require extremely quick action on the part of the Federal agencies involved. Where the timing of such Federal activities makes it impossible to meet the requirements of this rule, EPA indicated that it would be appropriate to presume conformity. Several examples are listed in the preamble to the proposal (58 FR 13843).

(2) *Comment.* One commenter stated that transportation projects should be

exempt. Other commenters recommended that a broader set of emergencies should be covered and that an exemption is appropriate for such actions, including responses to natural disasters such as hurricanes and earthquakes.

(3) *Response.* As proposed, certain transportation projects are exempt from this rule as specified in § 51.853(a). Those actions are subject to the transportation conformity rule.

The EPA agrees that immediate responses to natural disasters such as hurricanes, earthquakes and similar events such as responses to terrorist acts, civil unrest, or military mobilizations should be exempt. The exemption is needed where a Federal agency cannot practicably complete a conformity analysis prior to taking actions in response to an emergency. Accordingly, a definition of "emergency" is contained in the final rule and the exemption is contained in § 51.853(d)(2). Additional examples of emergencies that are exempt from this rule are: emergencies under CERCLA, immediate responses to the release or discharge of oil or hazardous material in accordance with approved Spill Prevention and Response Plans or Spill Contingency Plans which are consistent with the requirements of the National Contingency Plan, and response to life- and property-threatening emergencies.

The rule is clarified to state that this provision includes continuing actions which are, in effect, commenced immediately after the emergency is determined and are not limited to "national" emergencies. This does not, however, include long-term Federal actions taken in response to such events unless, as required in § 51.853(e), the Federal agency makes a periodic determination that the emergency conditions still exist. In such cases it would be impractical for the Federal emergency actions to be delayed so that a conformity determination could be made. For purposes of this rule, immediate responses are actions commenced on the order of hours or days after the emergency is determined and long-term responses occur on the order of months or years thereafter.

g. Procurement requests. (1) *Proposal.* The preamble to the proposed rules discussed the need for emissions associated with the Federal action to be "reasonably foreseeable" at the time the conformity determination is required (58 FR 13839) and stated that an agency is not required to speculate or guess at indirect emissions which are conceivable but not actually identifiable. The preamble also indicated (58 FR 13840) that where it is

impossible to accurately locate and quantify emissions and therefore impossible to accurately complete the air quality analysis, such omissions should not be considered "reasonably foreseeable." Further, the preamble stated that on-going programs or operations, such as certain permit renewal actions, that do not increase emissions over previous levels fall below the de minimis levels in the rule (58 FR 13842); that is, only emissions increases are counted toward the de minimis levels.

(2) *Comment.* Several commenters recommended that procurement actions by a Federal agency should not be covered by the conformity rules and that the annual cost of conformity analyses for the total of all such actions could be greater than \$100 million. The commenters argued that most procurement actions should be viewed as a separate category of Federal activity for purposes of an environmental analysis. Procurement actions would merely implement the decision to conduct or carryout a policy, plan, program or project. The environmental analysis and thus the conformity determination would be made on the decision to go forward with the program or project, not on the follow-on procurement action.

(3) *Response.* The March 15, 1993 proposal was silent on the application of conformity requirements to procurement actions. Many comments were received on procurements and generally indicated that procurements should be exempt from the final conformity rule. However, the EPA believes that certain procurement actions may constitute Federal actions under the general conformity provisions. It is impossible at this time to resolve competing concerns regarding which procurement actions should be covered and which should be exempt since the existing record is inadequate. Therefore, the EPA will propose to cover certain procurements in a future rulemaking.

As noted, EPA intends to issue an NPR regarding attainment areas. The EPA intends to include in this proposal request for comment on exemptions for certain procurement actions which it believes would fit the de minimis criteria or result in emissions which are not reasonably foreseeable. The EPA believes the vast majority of procurement actions would be de minimis or not reasonably foreseeable. Given the complexity of Federal procurement and the government's desire to streamline procurement activities as discussed in the National

the final rule provides that emissions that are exempt or presumed to conform are not part of the definition of "total of direct and indirect emissions" and, thus are not required to be part of the applicability or determination analyses.

The final rule requires the inclusion of the total direct and indirect emissions in the applicability (§ 51.853) and conformity (§ 51.858) determinations, except the portion of emissions which are exempt or presumed to conform under § 51.853. For example, assume that a Federal action includes construction of a new industrial boiler (whose emissions are subject to preconstruction review and, thus, exempt) and a separate office building, and assume further that direct emissions from the boiler exceed the de minimis levels in § 51.853, but the direct and indirect emissions from the office building alone are less than the de minimis levels. In that case, the action, as a whole, would not exceed the de minimis levels and, therefore, would not need a conformity determination.

L. Reporting Requirements

1. Proposal

The proposed rule contains requirements for a Federal agency to notify EPA and the State and local air quality agencies of draft and final conformity determinations.

2. Comment

The EPA received comments suggesting that additional, early notification should be required, including notification of the Metropolitan Planning Organization (MPO) and affected Federal Land Manager (FLM).

3. Response

The proposal required notification of the State and local air agencies since their expertise should be sought when interpretation of the SIP is needed. The final rule also requires notification of the MPO and affected FLM's. The MPO needs to be involved and consulted where planning assumptions are at issue. Although the conformity determination is a Federal responsibility, the State and local agencies must, in some cases, provide important information. For example, the Federal agency would need to consult with the State and/or local agency to determine the status of an area's emissions budget or population projections. Therefore, the final rule includes these requirements.

In addition, Class I areas can be seriously affected by air emissions. It is therefore important that FLM's be able

to be part of the decision-making process for Federal actions that have the potential to impact land under their jurisdiction. Consequently, § 51.855 was amended to require a Federal agency taking a Federal action that requires a conformity determination and that is within 100 km of a Class I area to consult with the affected FLM when the Federal action is proposed and to notify the FLM within 30 days of the draft conformity determination and again within 30 days of the final conformity determination. This 30-day timeframe is also consistent with the timeframe in the public participation requirements of the rule, as described in the following discussion.

M. Public Participation

1. Proposal

Under the proposed rule, Federal agencies making conformity determinations would be required to provide 45 days for written public comment prior to taking any formal action on a draft determination (§ 51.856). This period may be concurrent with any other public involvement, such as occurs in the NEPA process or as otherwise required by the Administrative Procedure Act (APA), where applicable.

In procedures that might extend beyond the usual NEPA process, conformity to a SIP must specifically involve the appropriate EPA Regional Office(s), State and local air quality agencies. The Federal agency must make available for review to all interested parties the draft determination and supporting materials which describe the analytical methods and conclusions relied upon in making the determination. The agency should provide, upon request, a description of significant assumptions, the source of data and assumptions not generated by the sponsoring agency, and a reconciliation of the estimates of population, employment, travel, and congestion with those currently in use in the air quality planning process.

2. Comment

The EPA received a wide range of comments on public participation. Many supported the EPA proposal. Some commenters thought that general conformity determinations should require rulemaking actions and notification in the Federal Register. Others felt that no public participation is necessary. It was also suggested that each Federal agency should define its own public participation requirements. One commenter wanted the general conformity rule to follow the public

participation requirements outlined in the new transportation statute. Some commenters wanted to expand the requirements for public announcement of Federal agency determinations and a longer public comment period, while others wanted these requirements further restricted. It was pointed out that the 45-day comment period was inconsistent with the statutory requirements for shorter public comment periods of a number of Federal agencies.

Certain commenters asked EPA to clarify where the prominent advertisement is to be made. Another comment suggested that the advertisement should be in a "daily newspaper of general circulation."

Comments were also received suggesting that the State and local air agencies should have a concurrence role in the conformity analysis.

Several comments recommended that the NEPA requirements for public participation should be met at the same time as the conformity requirements in order to streamline the process and reduce any time and resource burdens.

3. Response

The final rule is revised somewhat to clarify the requirements of § 51.856 and to adjust the public comment period. A Federal agency is not required to maintain mailing lists and make information automatically available to those requesting to be on the list. Such a requirement could be unduly burdensome and unnecessary since those on the list would not necessarily review all the material automatically supplied. Thus, the rule requires only that the Federal agency respond to an information request which is related to a specific action. If information is requested of the Federal agency, it should be provided in a timely manner. The rule does not prohibit a Federal agency from voluntarily maintaining and responding to a mailing list.

In addition, the final rule is changed from the proposal to specify that information must be made available only in the case of a conformity determination under § 51.858. As described in the discussion on de minimis levels elsewhere in this preamble, no documentation is required by this rule for de minimis determinations under § 51.853 in order to avoid unreasonable administrative burdens on the Federal agencies. This approach is also consistent with the requirements in § 51.855 in the proposed and final rules which apply the reporting requirements only to conformity determinations under

Any measures that are assumed to mitigate air quality impacts must be identified and the process for implementation and enforcement of such measures must be described. Under the proposal, it was indicated that if the Federal agency, other governmental agency, or private sponsor of the project failed to implement the mitigation measures committed to and found necessary in the conformity determination, then the conformity determination automatically became invalid and resulted in the revocation of all permits, approvals, and licenses originally supported by that conformity determination. This revocation would result in the need for a new conformity determination.

Mitigation measures should generally be included by the Federal agency in enforceable documents such as permit conditions. Mitigation measures may need to be revised due to unforeseen circumstances that may arise as the action and/or related activity is completed. Where the revised mitigation measures are subject to public review and it is demonstrated that the revised measures continue to support the conformity determination, such revision would be acceptable.

The proposal indicated that States may choose to make mitigation measures committed to by a project sponsor as part of a conformity determination automatically enforceable through the SIP. One possible mechanism for incorporating mitigation measures into the SIP is for States to include a generic provision in their conformity SIP's adopting in advance and incorporating by reference the mitigation measures identified as necessary for making a conformity determination.

2. Comments

One commenter stated that the automatic revocation of the conformity determination is not an enforceable mechanism and injects too much uncertainty into the overall program.

Another commenter recommended that minor changes in mitigation measures which do not increase emissions should not need public comment.

Several comments suggested that SIP's should be required to include a generic enforcement provision, similar to other permit programs. Such a provision could make enforceable any conditions made pursuant to the SIP conformity rule and needed to show an action conforms.

A comment raised the concern that direct enforcement against non-Federal parties could violate the prohibition

against indirect source review programs in section 110(a)(5).

One commenter stated that local air agencies could provide the Federal agency with suggested mitigation measures to offset the project related emissions.

Another commenter suggested that a community, working with local air agencies, could decide to adjust its emission budget to allow for a specific Federal action.

3. Response

The EPA agrees that automatic revocation is not an appropriate or enforceable mechanism. Therefore, the proposed § 51.860(c) does not appear in the final rule. Second, EPA agrees that a generic enforcement provision in the SIP is needed for mitigation agreements. Therefore, the final rule includes the requirements in § 51.860 (b)-(f) which indicate that States must adopt a generic enforcement provision which will make any agreements, including mitigation measures, necessary for a conformity determination both State and federally enforceable. Section 51.860(a) is also revised to indicate that a funding commitment is not needed in all cases.

The final rule includes the provision in § 51.860(b) of the proposal which requires any licenses, permits or approvals of the action to be conditioned on the governmental or private entity meeting the mitigation measures necessary for the conformity determination. This provision is renumbered in the final rule as § 51.860(d).

In addition to requiring in § 51.860(b) and (d) that written commitments and conditions to mitigation measures be obtained from project sponsors prior to making a positive conformity determination, § 51.860(c) and (f) of the final rule require that project sponsors comply with such commitments and conditions once made. Consistent with these provisions, § 51.858(d) provides that the analysis, which results in a conformity determination or identifies mitigation necessary for a conformity determination, must be completed before the conformity determination is made. Pursuant to these final rules issued under Title I of the Act, EPA can enforce mitigation commitments and conditions directly against project sponsors under section 113 of the Act, which authorizes EPA to enforce the provisions of rules promulgated under the Act.

As provided in § 51.860(g), once a State revises its SIP to adopt the Federal general conformity rule and EPA approves that revision, then any agreements or commitments, including

mitigation measures, necessary for a conformity determination will be both State and federally enforceable. In addition, after EPA approves that SIP revision, citizens can enforce against responsible parties for violations of SIP requirements under section 304 of the Act.⁶

The concern was raised to EPA that direct enforcement against non-Federal parties could violate the prohibition against indirect source review programs in section 110(a)(5). However, EPA concludes that this prohibition is not relevant to the requirement that project sponsors comply with mitigation commitments. The EPA is not promulgating a generally applicable requirement for review of all indirect sources. Rather, EPA is enabling Federal agencies to make positive conformity determinations under section 176(c) based on voluntary commitments by project sponsors to complete mitigation measures. Project sponsors are not obligated to make such commitments. Where they volunteer to do so to facilitate Federal conformity determinations, EPA is requiring them to live up to such commitments. Without such a requirement, EPA could not allow positive conformity determinations based on mitigation measures prior to actual construction of mitigation measures.

The EPA does not agree certain changes in mitigation measures should avoid the public participation requirements. The determination that a change is a "minor" change or the calculation that there is no emissions increase may be subject to considerable judgment. As such there is a need for public participation. Section 51.860(e) reflects this provision.

As mentioned previously and as provided in § 51.858(a)(5)(i) of the final rule, EPA agrees that the State and local air agencies can play an important role in the conformity process. These agencies can provide the Federal agency with suggested mitigation measures to offset the project related emissions. The Federal agencies can take such a list and work with the local planning and regulatory agencies to effect necessary emissions reductions.

⁶ Currently, the sponsors of any projects which are subject to Federal programs identified in the SIP, e.g., NSR permits and PSD requirements, are subject to State and Federal enforcement actions if applicable procedures and permit conditions are not followed. Project sponsors of Federal actions requiring a conformity determination will be subject to similar enforcement actions if they fail to implement mitigation measures prescribed by the approved SIP revision. Enforceability through the SIP will apply to all parties who agree to mitigate direct and indirect emissions associated with a Federal action for a conformity determination.

B. SIP Revision—Deadline

1. Proposal

Although the statute specifies that EPA should require States to submit their conformity SIP revisions by November 15, 1992, the congressional intent was also that EPA would have promulgated final conformity rules by November 15, 1991. In light of the delay in EPA promulgation of these rules, it is now clearly impossible for States to submit conformity SIP's by November 15, 1992. Therefore, EPA requires States to revise their SIP's within 1 year after the date of publication of the conformity rule. This approach is consistent with the congressional intent to provide States with a 1-year timeframe to complete their rulemaking once EPA had established the Federal criteria and procedures for conformity determinations.

2. Comment

Several commenters supported the 1-year timeframe as being consistent with congressional intent. One commenter suggested 18 months. Another commenter recommended that the SIP revision be required as soon as possible and that those revisions should be due not later than March 15, 1994. The EPA also received comments requesting clarification as to which agency is to submit the SIP revision.

3. Response

The final rule incorporates a 1-year timeframe since that represents an expeditious schedule for the State agencies and since this timeframe is consistent with congressional intent, considering the actual date of final Federal rulemaking. The SIP revision must be submitted by the Governor or Governor's designee responsible for submitting SIP revisions. Responsibility for implementing the conformity rule itself should fall to the primary agency responsible for implementing the SIP, usually the State air quality agency.

If a State does not revise its SIP within the 12 months following Federal Register publication of the final general conformity rule, then EPA will make a finding of failure to submit the revision, which would start the sanctions clock. Since, in this case, the State would not have a revised SIP and also would not have adopted the general conformity regulation, any conformity determinations made prior to State adoption and EPA approval of the SIP revision would be subject to the Federal rule and Federal enforceability procedures.

In addition, the rule is clarified with respect to application in areas newly

designated as nonattainment. In such cases, the requirement for the State SIP revision by 12 months after publication of the general conformity rule could be unreasonable. Therefore, the rule provides that a State must revise its SIP to include the general conformity provisions within 12 months of an area's redesignation to nonattainment. The EPA general conformity rule would apply in any interim period.

C. SIP Revision—General Conformity

1. Proposal

As described in the proposal, EPA believes that section 176(c)(4)(A) and (C) of the Act clearly require EPA to promulgate criteria and procedures for determining conformity for both general and transportation activities (58 FR 13838) and to require States to submit SIP revisions including conformity criteria and procedures for both types of activities.

2. Comment

Certain commenters disagreed with EPA's interpretation of section 176(c)(4) of the Act, arguing that SIP revisions should be required only for transportation activities. However, no new information was provided by the commenters.

3. Response

For the reasons described in full in the proposal, EPA continues to believe that a SIP revision is required for general conformity by section 176(c)(4)(C) of the Act.

D. Federal Actions—Miscellaneous

1. Proposal

The description of a "Federal action" is set out in the preamble (58 FR 13838) and in the regulatory portion (definitions) of the proposal notice.

2. Comment

One commenter requested EPA to clarify that a renewal of an existing permit or approval does not give rise to a new conformity requirement, assuming the renewal does not materially alter the type or amount of emissions associated with the originally permitted activity.

Some commenters requested that the NPDES actions should all be required to undergo a conformity analysis and others supported the proposal which calls for a conformity analysis where it is an EPA-issued NPDES permit, but not where it is a State-issued permit under a delegated NPDES program.

One commenter stated that Federal actions should include certain actions

taken by State or regional non-Federal agencies.

3. Response

As described in section III.G., the definition of "Federal action" in the final rule is changed from the description in the proposal notice (58 FR 13838) in order to clarify its meaning. The following responses cover additional concerns regarding this term.

While section 176(c)(2) of the Act may be interpreted to impose certain obligations on non-Federal actions under the transportation conformity provisions, the same interpretation does not apply for general conformity (such as State-issued NPDES permits) since the relevant statutory language is different.

Section 176(c)(1) does not impose any obligations on non-Federal parties other than MPO's. Thus, EPA cannot require non-Federal actions to make conformity determinations under the general conformity rule. Where a State is taking an independent action without Federal support, even under an EPA approved program such as a State NPDES program, there is no Federal action subject to these rules. On the other hand, where a Federal agency delegates its responsibility to take certain actions to a State or local agency, as in the case of certain block grants under Housing and Urban Development programs or Federal NPDES programs, the action remains a Federal action and the State must make a conformity determination on the Federal agency's behalf.

The EPA agrees that permit renewal actions or any action that does not increase emissions, would be exempt from the conformity rule and is so stipulated in § 51.853(c)(2)(ii).

E. Applicable Implementation Plan

1. Proposal

"Applicable implementation plan" is defined as the most recent EPA-approved or promulgated SIP (58 FR 13849).

2. Comment

The EPA received comments suggesting that the conformity determinations should be based on the most recent SIP revisions submitted by the State, even if EPA has not approved them, until such revisions are superseded by a more recent State submittal or by a Federal implementation plan (FIP); basing conformity determinations on outdated and inadequate SIP's is "very unproductive." Other comments suggested that actions in regions that do not have an approved SIP should be exempt from conformity.

determination to develop its own analysis or adopt that of another Federal agency, gives flexibility to the Federal agency and fulfills the agency's responsibility for making a conformity determination. A Federal agency retains the ability to conduct its own air analysis or use that of another Federal agency and make its own conformity decision. If an agency, due to one of its analyses, determines that the project does not conform, then it may not make a positive conformity determination. If there are differing conformity determinations for a Federal action by several Federal agencies involved, the respective agencies would have to reconcile their differences before the entire project could proceed.

If another Federal agency disagrees with a Federal agency's conformity determination, but does not itself have jurisdiction for the Federal action, then the Federal agency should provide written comments to the Federal agency with jurisdiction. The Federal agency with jurisdiction is required to consider the comments of other interested agencies under the proposed rules.

2. Comments

A number of commenters supported the procedures outlined in the proposal. One commenter suggested that the general conformity rule use the same interagency coordination procedures as those in the new transportation statute. Some commenters felt that a lead agency, similar to that used in NEPA, should have responsibility for the conformity determination; one commenter suggested the lead agency should be the one with continuing authority over the project.

3. Response

The final rule requires that each Federal agency be responsible for making its own conformity determination as described in § 51.854. The rationale for this is explained in the response to comments on the EPA and State review roles. Because section 176(c) indicates that each Federal agency is responsible for making its own conformity determination, EPA cannot remove that authority from the Federal agency and assign it elsewhere. Although the general conformity rule does not specifically identify a lead agency, coordination of conformity determinations will be necessary because all Federal agencies with jurisdiction over the project will have to make a positive conformity finding for the project to proceed. Therefore, differences among Federal agencies will have to be resolved through consultation among those agencies. The

EPA is not mandating formalized consultation and dispute resolution procedures, but rather leaves this to the discretion of the Federal agencies involved to allow for greater flexibility.

K. Air Quality Related Values (AQRV's)

1. Proposal

The proposal did not specifically address AQRV's.

2. Comment

One commenter stated that conformity should be applied broadly, so that Federal actions will not adversely affect the AQRV's of protected Federal lands.

3. Response

To the degree that a SIP includes requirements related to AQRV's, a Federal action would need to conform to those SIP provisions. The EPA believes that section 176(c) of the Act is intended to protect the NAAQS and the SIP. Section 176(c)(1)(A) and (B) define conformity, and do not include reference to any parameters beyond SIP requirements and NAAQS. Thus, the conformity rule does not require the conformity analysis to cover values other than the NAAQS, unless they are specifically contained in the SIP. For example, if a SIP contains PSD requirements, a Federal action must conform to those requirements to the extent they apply; in general, actions subject to PSD would not need a conformity analysis since the stationary source emissions would be exempt under § 51.853(c)(1) or § 51.853(b)(1) and any vehicle emissions associated with the action would not usually be subject to the PSD requirements.

L. Frequency of Conformity Determinations

1. Proposal

A conformity determination expires if the action is not taken in a reasonable time period (58 FR 13844). The EPA believes that conformity determinations should not be valid indefinitely, since the environment surrounding the proposed action will change over time.

The EPA proposed that the conformity status of a general Federal action automatically lapses 5 years from the date of the initial determination if the Federal action has not been completed or if a continuous program has not been commenced to implement that Federal action in a reasonable time. "Commenced" as used here has the same general meaning as used in the PSD program (40 CFR 51.166).

2. Comment

The EPA received comments both supporting and criticizing the 5-year period and other comments suggesting a 3-year period to be consistent with the transportation rule. One commenter suggested that a "continuous program" of on-site construction includes design and engineering work

3. Response

The 5-year timeframe for conformity determinations, as described in the NPR, is contained in the final rule. The 3-year timeframe for the transportation conformity rule is specified in section 176(c)(4)(B)(ii) of the Act. However, there is no similar specification in section 176(c) for the frequency of general conformity determinations. After extensive consultation with the Federal agencies and review of the comments, EPA has decided to keep the 5-year renewal timeframe for general conformity decisions because it is consistent with the renewal frequency of NEPA decisions rather than the 3-year timeframe required for transportation conformity. Consistency with NEPA is important in order to allow Federal agencies to incorporate the new conformity procedures within their existing NEPA procedures. Most general conformity actions also need NEPA analyses, but would not need transportation conformity decisions.

The EPA agrees that a continuous program of on-site construction may include design and engineering work. Where on-site construction has been commenced and meaningful design and engineering work is continuing, this represents the kind of commitment to an action which should not be jeopardized by expiration of a previous conformity determination.

The rule is clarified in § 51.857(a) to refer to the "date a final conformity determination is reported under § 51.855." This replaces the phrase the "date of the initial conformity determination" since it is clearer. The rule is also clarified in § 51.857(b) to replace the vague phrase "the scope of the project" with "the scope of the final conformity determination reported under § 51.855." The final rule also contains a provision in § 51.857(c) which clarifies that actions which are taken subsequent to a conformity determination must be consistent with the basis of that determination.

M. Tiering

1. Proposal

The EPA proposed that Federal agencies could use the concept of tiering and analyze actions in a staged manner

3. Response

The EPA believes that the language proposed in § 51.858(a)(1) is appropriate. Specificity is needed in order to avoid letting this provision become a significant loophole, open to varying interpretations. On the other hand, the emissions budget provision in § 51.858(a)(5)(i) provides a mechanism similar to that suggested by the commenter.

Q. Transportation Conformity

1. Proposal

Section 51.858(a)(5)(ii) provides that a Federal action that is specifically included in a conforming transportation plan, would be determined to conform.

2. Comment

One commenter stated that the MPO should be involved in determining when a project is specifically included in a transportation plan.

3. Response

The final rule is clarified to indicate that the MPO must determine that an action is "specifically included" in a conforming plan since the MPO is likely to be better qualified to make that interpretation than the Federal agency making the conformity determination. The rule is also clarified to state that a conforming plan refers to a transportation plan and transportation improvement program which have been found to conform under 40 CFR part 51 or part 93.

R. Baseline Emissions

1. Proposal

Where EPA has not approved a revision to the relevant SIP attainment or maintenance demonstration since 1990, a Federal action may be determined to conform if emissions from the action do not increase emissions with respect to the baseline emissions (paragraph (d) of § 51.858).

2. Comment

A commenter suggested that the rule or preamble should clarify that Federal agencies may use the latest emissions inventory available from State and local agencies in gauging the baseline. Further, conformity determinations based on such inventories should remain valid, and not be re-analyzed when a new inventory is complete.

Another commenter stated that it is not appropriate for areas which were designated nonattainment before the 1990 amendments to the Act to use a year before 1990 as the baseline. Such areas are required to submit 1990 emission inventories. For areas

designated nonattainment after the 1990 amendments to the Act, the approach to establishing baselines in the proposal may be appropriate.

One commenter pointed out that using 1990 as a baseline is inappropriate in many cases since many Federal actions related to the military took place at the time of Desert Storm. As an alternative they suggest the rule allow use of a baseline established from the highest estimated emissions over a 3-year period from 1989-91. Regarding military base closure actions, one commenter stated that the baseline emissions should be the preclosure announcement baseline operating conditions. This approach does not alter the emissions budget that would have existed if a base continued to operate. Such emissions were contained in the existing and future emissions inventory numbers being used by the South Coast Air Quality Management District in its 1989 air quality plan. This should be the emissions budget used to make the conformity determination for that District.

The EPA also received a comment stating that if 1990 emissions inventory levels are used as a baseline, it is important that some type of "credit" be given to a Federal agency that is required to make a conformity determination with respect to an airport related improvement or modification project at an airport that has already implemented significant emission reduction measures prior to 1990. This credit could be made by increasing the de minimis amount for certain airport actions.

Several commenters requested clarification on how to calculate the baseline emissions. One commenter recommended that the comparison should be between the "action" versus "no action" and not between the "action" and "1990 base."

3. Response

The baseline calculation is discussed in the proposal (58 FR 13846) and specifies calendar year 1990 or an alternate time period, consistent with the time period used to designate or classify the area in 40 CFR part 81. Use of the "latest emission inventory" should, in many cases, coincide with use of the 1990 inventory since the 1990 amendments to the Act required all ozone nonattainment areas to develop a 1990 inventory. For PM-10, the Act also required an emissions inventory. But, for the initial PM-10 areas designated nonattainment as of enactment, the inventories are generally for 1 of the calendar years in the mid- to late-1980's.

The approach in the final rule uses 1990, which is the baseline year specified in the Act from which to measure progress toward attainment, the PM-10 emissions inventory years (not specifically included in the proposed rule), or the designation/classification time period, which is representative of emission levels that must be reduced in order to provide for attainment. Use of more recent emissions inventories may not be appropriate since such inventories might not be representative of the full extent of the emissions associated with the air quality problem.

The EPA sees no basis for the rule to select certain activities for "credit" due to previously implemented emission reduction measures, whether at airports or military bases. Such decisions reside with the State when the control strategy and emissions budget are developed. Since the final rule allows use of the years other than 1990 where appropriate, it could, in effect, provide some of the "credit" the commenter is suggesting in some cases.

As described in the proposal, baseline emissions are defined as the total of direct and indirect emissions that are estimated to have occurred during calendar year 1990 or an alternate period based on the classification or designation as promulgated in 40 CFR part 81. The proposed rule intended to provide for a positive conformity determination if the future use of the area resulted in equal or less emissions. However, the proposal did not take into account that any motor vehicle emission activities occurring in the baseline year would, in fact, emit less in the future year scenario (at the same, historic activity levels) due only to improved emissions controls in newer vehicles. Thus, the proposed rule was skewed in a manner that unjustifiably could appear to allow future actions to conform. Therefore, § 51.858(a)(5)(iv)(B) of the final rule is revised to focus on the baseline activity levels rather than the baseline emissions and the emission calculations must use emission factors appropriate to the future years analyzed. In other words, the rule specifies a "build/no build" test, not a "build/1990" test.

S. Annual Reductions

1. Proposal

Paragraph (c) of § 51.858 of the proposal states that a Federal action may not be determined to conform unless emissions from the action are consistent with all relevant requirements and milestones contained in the applicable SIP, such as elements identified as part of the RFP schedules.

as the MPO or appropriate agency has authorized the change, so as not to delay the conformity analysis.

V. Forecast Emission Years

1. Proposal

Paragraph 51.859(d) in the proposal identified the emission scenarios to be considered. Total direct and indirect emission estimates were proposed to be projected, consistent with key dates with respect to the amended Act, the project itself, and the applicable SIP. Thus, the analysis was proposed to contain:

(1) The Act mandated attainment year or, if applicable, the farthest year for which emissions are projected in the maintenance plan;

(2) The year during which the total direct and indirect emissions from the action are expected to be the greatest on an annual basis; and

(3) Any year for which the applicable SIP specifies an annual emissions budget.

2. Comment

One commenter indicated that the emission scenarios requirement should be omitted and lead agencies be allowed to determine the scenarios on a project-specific basis. Another commenter stated that the analysis should include a maintenance period. The EPA also received a comment that all Federal actions must be analyzed for their impact in the 20(+)-year timeframe.

3. Response

The scenarios proposed by EPA are also reflected in the final rule because they are the minimum possible scenarios which still meet the statutory requirements that relate conformity to attainment, maintenance, SIP milestones, and RFP. The above emission estimates are necessary in order to assure that the Federal action would not "delay timely attainment of any standard or any required interim emission reductions or other milestones in any area" (section 176(c)(1)(B)(iii) of the Act). This provision links emissions from the action to the emission reduction targets required by the Act to demonstrate RFP prior to the attainment date. Emission estimates are also needed to provide for determinations of conformity with respect to maintenance plans as required by section 176(c)(4)(B)(iii) of the Act. For an action to conform to the applicable SIP, it must conform at all of the above times.

The inclusion of a maintenance period is not reasonable since many SIP's may not have identified a maintenance period. The rigidity of a

20(+)-year timeframe is also unnecessary. Rather, the emission scenarios should be keyed to the relevant years for RFP, attainment and maintenance planning specified in the SIP. In some, but not all, cases a 20(+)-year timeframe will, in fact, be necessary under the final rule to meet one of the specified emission scenarios.

W. Total of Direct and Indirect Emissions

1. Proposal

The preamble states that "net" emissions from the various direct and indirect sources should be used in the applicability and conformity analyses (58 FR 13847). However, the rule uses the phrase, "total direct and indirect emissions."

2. Comment

A commenter suggested that EPA should expressly state in the final rule that "net" emissions from the particular Federal action under review should be evaluated in determining both applicability and conformity.

Another comment stated that the conformity analysis should include the direct and indirect impacts of the Federal activity along with all other reasonably foreseeable projects (Federal and non-Federal) in the area.

3. Response

The final rule is revised to clarify that the total direct and indirect emissions may be a "net" emissions calculation. For example, where an agency has several offices in one metropolitan area and is considering consolidation into one large centralized office, vehicular activity may actually decrease, depending on the location of the new office building, availability of mass transit, and other factors. In such cases, the Federal agency should consult with the MPO in determining the "net" emissions from such an action. Consultation with the MPO is also important to help assure that indirect emissions, once attributed to a source, will not be double-counted by attributing the same emissions to nearby projects that are subsequently reviewed.

The conformity requirements for applicability and analysis generally do not include reasonably foreseeable projects other than those caused by the Federal action. Thus, the calculation of emissions for de minimis or offset purposes includes only the (net) direct and indirect emissions caused by the Federal action in question. However, where an air quality modeling analysis is part of the conformity determination, the EPA guideline on air quality models

(reference in § 51.859) requires the modeling to include emissions from existing sources as well as the potential new emissions due to the Federal action in order to accurately determine the effect of the action on the NAAQS and whether the action might cause or contribute to a new violation or worsen an existing violation.

In addition, the definition is revised to clarify that emissions of criteria pollutants and emissions of precursors of criteria pollutants (as defined in the final rule) are included within the meaning of "total of direct and indirect emissions." Further, the final definition makes it clear that the portion of emissions which are exempt or presumed to conform under § 51.853 are not included in the "total of direct and indirect emissions."

X. New or Revised Emissions Models

1. Proposal

The proposed rules require use of the most current version of the motor vehicle emissions model specified by EPA and available for use in the preparation or revision of SIP's (58 FR 13852).

2. Comment

One commenter suggested that the final rules should provide that conformity determinations be made with the same mobile source emissions model as was used in the development of the SIP until such time as EPA approves a SIP revision, based on a new model.

Another commenter noted that the latest planning assumptions may not be consistent with assumptions contained in the SIP. In such cases, the commenter suggests that the final rule should allow the affected agencies to determine which prevails. The commenter also suggested that the general conformity rule should provide a transition period similar to that in the transportation conformity rule, where EPA updates the motor vehicle emissions model.

3. Response

The statute requires the determination of conformity to be based on the most recent estimates of emissions, and such estimates shall be determined from the most recent population, employment, travel, and congestion estimates as determined by the MPO or other agency authorized to make such estimates. As noted in the proposal (58 FR 13846-13847) EPA recognizes this issue and urges that these estimates should be consistent with those in the applicable SIP, to the extent possible. However, based on the clear statutory language,

Regarding the timing of prescribed burns, if a burn occurs during a time of year when a nonattainment area does not experience violations of the NAAQS and the applicable SIP's attainment demonstration specifically reflects that finding, then such a burn may be determined to conform pursuant to § 51.858(a)(1).

Regarding the direction of smoke emissions, for the reasons noted above EPA has selected an emissions-based threshold for conformity applicability purposes. Such an approach does not account for emissions direction or dispersion. Depending on the nature and scope of the activity and conformity option selected pursuant to section 51.858, the conformity analysis may or may not explicitly address these factors. Section 51.855 was amended, however, to require the consultation and notification of FLM's by other Federal agencies when a Federal action requiring a conformity determination is within 100 km of a Class I area.

4. Comment

Two commenters noted that the rule could affect many of their agencies' activities. One commenter stated the rule becomes less focused as it attempts to address the different types of Federal actions. The commenter stated the rule is unclear about how the Federal agency should make a conformity determination for prescribed fire, among other activities, to take into account the complex issues involved. The commenter stated that the rule should encourage pollution prevention by exempting actions consistent with an agency's pollution prevention plan. Another comment indicated that most of its agency's management plans, which are programmatic, include emissions that are not reasonably foreseeable.

5. Response

The final rule applies to nonattainment and maintenance areas and requires conformity determinations for Federal actions where the total of direct and indirect emissions exceed de minimis levels as described in § 51.853(b). Section 51.858 provides several options for showing conformity for Federal activity generally, including FLM activity. The conformity showing includes an air quality test where the Federal agency must demonstrate that the action does not cause or contribute to any new NAAQS violation or increase the frequency or severity of any existing violation. The Federal agency can either make this showing explicitly through air quality modeling or by selecting a surrogate option such as consistency with an emissions budget.

The conformity showing also includes an emissions test where the Federal agency must show that the action is consistent with all SIP requirements and milestones.

In general, EPA recognizes the complex problems posed by the goals and missions of the air quality and land management agencies and EPA intends to work with the FLM's and States to find solutions. One such area of concern is ecosystem management and forest health and the challenges posed to air quality and visibility by the need for more prescribed burning expressed by the FLM.

Regarding reasonably foreseeable emissions, the rule does not require Federal agencies to include emissions in conformity applicability determinations or analyses which are not reasonably foreseeable. Reasonably foreseeable emissions (as defined in § 51.852) are projected future indirect emissions that are identified at the time the conformity determination is made and for which the location and quantity is known.

Regarding pollution prevention plans, while the final rule does exempt certain actions or presume them to conform, it does not specifically exempt actions consistent with a Federal agency's pollution prevention plan. Paragraph (c)(2) of § 51.853 of the final rule exempts actions whose total direct and indirect emissions are below the de minimis rates and other actions which would result in no emissions increase or an emissions increase that is clearly de minimis. Certain actions listed in paragraph (c)(3) of § 51.853 where the emissions are not reasonably foreseeable are also exempt. In addition, paragraphs (d) and (e) of § 51.853 of the final rule identify other actions which are exempt from conformity, such as Federal actions in response to emergencies. Therefore, since this rule does not exempt them or presume them to conform, actions consistent with an agency's pollution prevention plan that increase emissions beyond the de minimis levels are subject to conformity. However, §§ 51.853(g) and 51.853(h) of the rule provide Federal agencies with the requirements and procedures to establish activities that are presumed to conform which could conceivably include actions consistent with a pollution plan provided the rule's appropriate requirements are met. Further, to address those situations where prescribed burns are part of a conforming smoke management plan, § 51.853(c)(4)(ii) was added to exempt such actions.

6. Comment

One comment concerned the air pollution emissions information EPA maintains in a document entitled "Compilation of Air Pollutant Emission Factors (AP-42)." The commenter indicated the document does not correctly represent emissions from prescribed burning. The commenter also stated that the rule should not require the development of demographic and other data from urban nonattainment areas when they are not relevant, nor should the rule dictate such data in suburban or rural areas in the agency's planning process. In addition, the commenter stated that the rule would require the use of inappropriate air quality models. Another commenter stated that models for use in analyzing prescribed burning emissions in mountainous terrain have not yet been developed.

7. Response

Regarding emission factors, the final rule allows for alternative emissions data to be used where it is more accurate than that provided in EPA's AP-42 document. Regarding demographic data, the final rule requires that all planning assumptions must be derived from data most recently approved by the MPO where available. Such data are available for urban areas; the rule does not require its use in suburban and rural areas if it is unavailable.

Regarding modeling, if EPA guideline modeling techniques are not appropriate in a conformity determination, then the rule provides for the use of alternative models provided written approval is obtained from the EPA Regional Administrator. If no model is available for a particular application, then modeling may not be an option available for that conformity determination.

BB. Federalism Assessment

1. Proposal

The preamble to the proposal states that there are no federalism effects associated with this rule (58 FR 13848).

2. Comment

One commenter stated that a federalism assessment should be conducted under Executive Order 12612.

3. Response

A federalism assessment has not been conducted under Executive Order 12612. However, federalism effects are considered throughout this rule (e.g., discussions regarding State, Federal

Nitrogen oxides, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur dioxide, Volatile organic compounds.

Dated: November 15, 1993.

Carol M. Browner,
Administrator.

The Code of Federal Regulations, title 40, chapter I, is amended as follows:

PART 6—[AMENDED]

1. The authority citation for part 6 is revised to read as follows:

Authority: 42 U.S.C. 4321 *et seq.*, 7401-7671q; 40 CFR part 1500.

2. Section 6.303 is amended by removing and reserving paragraphs (c) through (g) and revising paragraphs (a) and (b) to read as follows:

§ 6.303 Air quality.

(a) The Clean Air Act, as amended in 1990, 42 U.S.C. 7476(c), requires Federal actions to conform to any State implementation plan approved or promulgated under section 110 of the Act. For EPA actions; the applicable conformity requirements specified in 40 CFR part 51, subpart W, 40 CFR part 93, subpart B, and the applicable State implementation plan must be met.

(b) In addition, with regard to wastewater treatment works subject to review under Subpart E of this part, the responsible official shall consider the air pollution control requirements specified in section 316(b) of the Clean Air Act, 42 U.S.C. 7616; and Agency implementation procedures.

(c)-(g) [Reserved]

PART 51—[AMENDED]

1. The authority citation for part 51 continues to read as follows:

Authority: 42 U.S.C. 7401-7671q.

2. Part 51 is amended by adding a new subpart W to read as follows:

Subpart W—Determining Conformity of General Federal Actions to State or Federal Implementation Plans

Sec.

51.850 Prohibition.

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Subpart W—Determining Conformity of General Federal Actions to State or Federal Implementation Plans

§ 51.850 Prohibition.

(a) No department, agency or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan.

(b) A Federal agency must make a determination that a Federal action conforms to the applicable implementation plan in accordance with the requirements of this subpart before the action is taken.

(c) Paragraph (b) of this section does not include Federal actions where either:

(1) A National Environmental Policy Act (NEPA) analysis was completed as evidenced by a final environmental assessment (EA), environmental impact statement (EIS), or finding of no significant impact (FONSI) that was prepared prior to January 31, 1994;

(2) (i) Prior to January 31, 1994, an EA was commenced or a contract was awarded to develop the specific environmental analysis;

(ii) Sufficient environmental analysis is completed by March 15, 1994 so that the Federal agency may determine that the Federal action is in conformity with the specific requirements and the purposes of the applicable SIP pursuant to the agency's affirmative obligation under section 176(c) of the Clean Air Act (Act); and

(iii) A written determination of conformity under section 176(c) of the Act has been made by the Federal agency responsible for the Federal action by March 15, 1994.

(d) Notwithstanding any provision of this subpart, a determination that an action is in conformance with the applicable implementation plan does not exempt the action from any other requirements of the applicable implementation plan, the NEPA, or the Act.

§ 51.851 State implementation plan (SIP) revision.

(a) Each State must submit to the Environmental Protection Agency (EPA) a revision to its applicable implementation plan which contains criteria and procedures for assessing the conformity of Federal actions to the applicable implementation plan, consistent with this subpart. The State must submit the conformity provisions within 12 months after November 30, 1993 or within 12 months of an area's

designation to nonattainment, whichever date is later.

(b) The Federal conformity rules under this subpart and 40 CFR part 93, in addition to any existing applicable State requirements, establish the conformity criteria and procedures necessary to meet the Act requirements until such time as the required conformity SIP revision is approved by EPA. A State's conformity provisions must contain criteria and procedures that are no less stringent than the requirements described in this subpart. A State may establish more stringent conformity criteria and procedures only if they apply equally to non-Federal as well as Federal entities. Following EPA approval of the State conformity provisions (or a portion thereof) in a revision to the applicable SIP, the approved (or approved portion of the) State criteria and procedures would govern conformity determinations and the Federal conformity regulations contained in 40 CFR part 93 would apply only for the portion, if any, of the State's conformity provisions that is not approved by EPA. In addition, any previously applicable SIP requirements relating to conformity remain enforceable until the State revises its SIP to specifically remove them from the SIP and that revision is approved by EPA.

§ 51.852 Definitions.

Terms used but not defined in this part shall have the meaning given them by the Act and EPA's regulations, (40 CFR chapter I), in that order of priority.

Affected Federal land manager means the Federal agency or the Federal official charged with direct responsibility for management of an area designated as Class I under the Act (42 U.S.C. 7472) that is located within 100 km of the proposed Federal action.

Applicable implementation plan or applicable SIP means the portion (or portions) of the SIP or most recent revision thereof, which has been approved under section 110 of the Act, or promulgated under section 110(c) of the Act (Federal implementation plan), or promulgated or approved pursuant to regulations promulgated under section 301(d) of the Act and which implements the relevant requirements of the Act.

Areawide air quality modeling analysis means an assessment on a scale that includes the entire nonattainment or maintenance area which uses an air quality dispersion model to determine the effects of emissions on air quality.

Cause or contribute to a new violation means a Federal action that:

(1) Causes a new violation of a national ambient air quality standard

§ 51.853 Applicability.

(a) Conformity determinations for Federal actions related to transportation plans, programs, and projects developed, funded, or approved under title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1801 et seq.) must meet the procedures and criteria of 40 CFR part 51, subpart T, in lieu of the procedures set forth in this subpart.

(b) For Federal actions not covered by paragraph (a) of this section, a conformity determination is required for each pollutant where the total of direct and indirect emissions in a nonattainment or maintenance area caused by a Federal action would equal or exceed any of the rates in paragraphs (b)(1) or (2) of this section.

(1) For purposes of paragraph (b) of this section, the following rates apply in nonattainment areas (NAAs):

	Tons/ year
Ozone (VOC's or NO _x):	
Serious NAA's	50
Severe NAA's	25
Extreme NAA's	10
Other ozone NAAs outside an ozone transport region	100
Marginal and moderate NAA's inside an ozone transport region:	
VOC	50
NO _x	100
Carbon monoxide: All NAA's	100
SO ₂ or NO ₂ : All NAA's	100
PM-10:	
Moderate NAAs	100
Serious NAA's	70
Pb: All NAA's	25

(2) For purposes of paragraph (b) of this section, the following rates apply in maintenance areas:

	Tons/ year
Ozone (NO _x , SO ₂ or NO ₂): All maintenance areas	100
Ozone (VOC's):	
Maintenance areas inside an ozone transport region	50
Maintenance areas outside an ozone transport region	100
Carbon monoxide: All maintenance areas	100
PM-10: All maintenance areas	100
Pb: All maintenance areas	25

(c) The requirements of this subpart shall not apply to:

(1) Actions where the total of direct and indirect emissions are below the emissions levels specified in paragraph (b) of this section.

(2) The following actions which would result in no emissions increase or an increase in emissions that is clearly de minimis:

(i) Judicial and legislative proceedings.

(ii) Continuing and recurring activities such as permit renewals where activities conducted will be similar in scope and operation to activities currently being conducted.

(iii) Rulemaking and policy development and issuance.

(iv) Routine maintenance and repair activities, including repair and maintenance of administrative sites, roads, trails, and facilities.

(v) Civil and criminal enforcement activities, such as investigations, audits, inspections, examinations, prosecutions, and the training of law enforcement personnel.

(vi) Administrative actions such as personnel actions, organizational changes, debt management or collection, cash management, internal agency audits, program budget proposals, and matters relating to the administration and collection of taxes, duties and fees.

(vii) The routine, recurring transportation of material and personnel.

(viii) Routine movement of mobile assets, such as ships and aircraft, in home port reassignments and stations (when no new support facilities or personnel are required) to perform as operational groups and/or for repair or overhaul.

(ix) Maintenance dredging and debris disposal where no new depths are required, applicable permits are secured, and disposal will be at an approved disposal site.

(x) Actions, such as the following, with respect to existing structures, properties, facilities and lands where future activities conducted will be similar in scope and operation to activities currently being conducted at the existing structures, properties, facilities, and lands; for example, relocation of personnel, disposition of federally-owned existing structures, properties, facilities, and lands, rent subsidies, operation and maintenance cost subsidies, the exercise of receivership or conservatorship authority, assistance in purchasing structures, and the production of coins and currency.

(xi) The granting of leases, licenses such as for exports and trade, permits, and easements where activities conducted will be similar in scope and operation to activities currently being conducted.

(xii) Planning, studies, and provision of technical assistance.

(xiii) Routine operation of facilities, mobile assets and equipment.

(xiv) Transfers of ownership, interests, and titles in land, facilities,

and real and personal properties, regardless of the form or method of the transfer.

(xv) The designation of empowerment zones, enterprise communities, or viticultural areas.

(xvi) Actions by any of the Federal banking agencies or the Federal Reserve Banks, including actions regarding charters, applications, notices, licenses, the supervision or examination of depository institutions or depository institution holding companies, access to the discount window, or the provision of financial services to banking organizations or to any department, agency or instrumentality of the United States.

(xvii) Actions by the Board of Governors of the Federal Reserve System or any Federal Reserve Bank to effect monetary or exchange rate policy.

(xviii) Actions that implement a foreign affairs function of the United States.

(xix) Actions (or portions thereof) associated with transfers of land, facilities, title, and real properties through an enforceable contract or lease agreement where the delivery of the deed is required to occur promptly after a specific, reasonable condition is met, such as promptly after the land is certified as meeting the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and where the Federal agency does not retain continuing authority to control emissions associated with the lands, facilities, title, or real properties.

(xx) Transfers of real property, including land, facilities, and related personal property from a Federal entity to another Federal entity and assignments of real property, including land, facilities, and related personal property from a Federal entity to another Federal entity for subsequent deeding to eligible applicants.

(xoi) Actions by the Department of the Treasury to effect fiscal policy and to exercise the borrowing authority of the United States.

(3) The following actions where the emissions are not reasonably foreseeable:

(i) Initial Outer Continental Shelf lease sales which are made on a broad scale and are followed by exploration and development plans on a project level.

(ii) Electric power marketing activities that involve the acquisition, sale and transmission of electric energy.

(4) Actions which implement a decision to conduct or carry out a conforming program such as prescribed burning actions which are consistent

proposed action and the Federal agency's draft conformity determination on the action.

(b) A Federal agency must notify the appropriate EPA Regional Office(s), State and local air quality agencies and, where applicable, affected Federal land managers, the agency designated under section 174 of the Clean Air Act and the MPO within 30 days after making a final conformity determination under § 51.858.

§ 51.856 Public participation.

(a) Upon request by any person regarding a specific Federal action, a Federal agency must make available for review its draft conformity determination under § 51.858 with supporting materials which describe the analytical methods and conclusions relied upon in making the applicability analysis and draft conformity determination.

(b) A Federal agency must make public its draft conformity determination under § 51.858 by placing a notice by prominent advertisement in a daily newspaper of general circulation in the area affected by the action and by providing 30 days for written public comment prior to taking any formal action on the draft determination. This comment period may be concurrent with any other public involvement, such as occurs in the NEPA process.

(c) A Federal agency must document its response to all the comments received on its draft conformity determination under § 51.858 and make the comments and responses available, upon request by any person regarding a specific Federal action, within 30 days of the final conformity determination.

(d) A Federal agency must make public its final conformity determination under § 51.858 for a Federal action by placing a notice by prominent advertisement in a daily newspaper of general circulation in the area affected by the action within 30 days of the final conformity determination.

§ 51.857 Frequency of conformity determinations.

(a) The conformity status of a Federal action automatically lapses 5 years from the date a final conformity determination is reported under § 51.855, unless the Federal action has been completed or a continuous program has been commenced to implement that Federal action within a reasonable time.

(b) Ongoing Federal activities at a given site showing continuous progress are not new actions and do not require periodic redeterminations so long as

such activities are within the scope of the final conformity determination reported under § 51.855.

(c) If, after the conformity determination is made, the Federal action is changed so that there is an increase in the total of direct and indirect emissions above the levels in § 51.853(b), a new conformity determination is required.

§ 51.858 Criteria for determining conformity of general Federal actions.

(a) An action required under § 51.853 to have a conformity determination for a specific pollutant, will be determined to conform to the applicable SIP if, for each pollutant that exceeds the rates in § 51.853(b), or otherwise requires a conformity determination due to the total of direct and indirect emissions from the action, the action meets the requirements of paragraph (c) of this section, and meets any of the following requirements:

(1) For any criteria pollutant, the total of direct and indirect emissions from the action are specifically identified and accounted for in the applicable SIP's attainment or maintenance demonstration;

(2) For ozone or nitrogen dioxide, the total of direct and indirect emissions from the action are fully offset within the same nonattainment or maintenance area through a revision to the applicable SIP or a similarly enforceable measure that effects emission reductions so that there is no net increase in emissions of that pollutant;

(3) For any criteria pollutant, except ozone and nitrogen dioxide, the total of direct and indirect emissions from the action meet the requirements:

(i) Specified in paragraph (b) of this section, based on areawide air quality modeling analysis and local air quality modeling analysis; or

(ii) Meet the requirements of paragraph (a)(5) of this section and, for local air quality modeling analysis, the requirement of paragraph (b) of this section;

(4) For CO or PM-10—

(i) Where the State agency primarily responsible for the applicable SIP determines that an areawide air quality modeling analysis is not needed, the total of direct and indirect emissions from the action meet the requirements specified in paragraph (b) of this section, based on local air quality modeling analysis; or

(ii) Where the State agency primarily responsible for the applicable SIP determines that an areawide air quality modeling analysis is appropriate and that a local air quality modeling analysis is not needed, the total of direct and

indirect emissions from the action meet the requirements specified in paragraph (b) of this section, based on areawide modeling, or meet the requirements of paragraph (a)(5) of this section; or

(5) For ozone or nitrogen dioxide, and for purposes of paragraphs (a)(3)(ii) and (a)(4)(ii) of this section, each portion of the action or the action as a whole meets any of the following requirements:

(i) Where EPA has approved a revision to an area's attainment or maintenance demonstration after 1990 and the State makes a determination as provided in paragraph (a)(5)(i)(A) of this section or where the State makes a commitment as provided in paragraph (a)(5)(i)(B) of this section:

(A) The total of direct and indirect emissions from the action (or portion thereof) is determined and documented by the State agency primarily responsible for the applicable SIP to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would not exceed the emissions budgets specified in the applicable SIP;

(B) The total of direct and indirect emissions from the action (or portion thereof) is determined by the State agency responsible for the applicable SIP to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would not exceed an emissions budget specified in the applicable SIP and the State Governor or the Governor's designee for SIP actions makes a written commitment to EPA which includes the following:

(1) A specific schedule for adoption and submittal of a revision to the SIP which would achieve the needed emission reductions prior to the time emissions from the Federal action would occur;

(2) Identification of specific measures for incorporation into the SIP which would result in a level of emissions which, together with all other emissions in the nonattainment or maintenance area, would not exceed any emissions budget specified in the applicable SIP;

(3) A demonstration that all existing applicable SIP requirements are being implemented in the area for the pollutants affected by the Federal action, and that local authority to implement additional requirements has been fully pursued;

(4) A determination that the responsible Federal agencies have required all reasonable mitigation measures associated with their action; and

(5) Written documentation including all air quality analyses supporting the conformity determination;

§ 51.860 Mitigation of air quality impacts.

(a) Any measures that are intended to mitigate air quality impacts must be identified and the process for implementation and enforcement of such measures must be described, including an implementation schedule containing explicit timelines for implementation.

(b) Prior to determining that a Federal action is in conformity, the Federal agency making the conformity determination must obtain written commitments from the appropriate persons or agencies to implement any mitigation measures which are identified as conditions for making conformity determinations.

(c) Persons or agencies voluntarily committing to mitigation measures to facilitate positive conformity determinations must comply with the obligations of such commitments.

(d) In instances where the Federal agency is licensing, permitting or otherwise approving the action of another governmental or private entity, approval by the Federal agency must be conditioned on the other entity meeting the mitigation measures set forth in the conformity determination.

(e) When necessary because of changed circumstances, mitigation measures may be modified so long as the new mitigation measures continue to support the conformity determination. Any proposed change in the mitigation measures is subject to the reporting requirements of § 51.856 and the public participation requirements of § 51.857.

(f) The implementation plan revision required in § 51.851 shall provide that written commitments to mitigation measures must be obtained prior to a positive conformity determination and that such commitments must be fulfilled.

(g) After a State revises its SIP to adopt its general conformity rules and EPA approves that SIP revision, any agreements, including mitigation measures, necessary for a conformity determination will be both State and federally enforceable. Enforceability through the applicable SIP will apply to all persons who agree to mitigate direct and indirect emissions associated with a Federal action for a conformity determination.

PART 93—DETERMINING CONFORMITY OF FEDERAL ACTIONS TO STATE OR FEDERAL IMPLEMENTATION PLANS

1. The authority citation for part 93 continues to read as follows:

Authority: 42 U.S.C. 7401-7671p.

2. Part 93 is amended by adding a new subpart B to read as follows:

Subpart B—Determining Conformity of General Federal Actions to State or Federal Implementation Plans

- Sec.
 93.150 Prohibition.
 93.151 State implementation plan (SIP) revision.
 93.152 Definitions.
 93.153 Applicability.
 93.154 Conformity analysis.
 93.155 Reporting requirements.
 93.156 Public participation.
 93.157 Frequency of conformity determinations.
 93.158 Criteria for determining conformity of general Federal actions.
 93.159 Procedures for conformity determinations of general Federal actions.
 93.160 Mitigation of air quality impacts.

Subpart B—Determining Conformity of General Federal Actions to State or Federal Implementation Plans

§ 93.150 Prohibition.

(a) No department, agency or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan.

(b) A Federal agency must make a determination that a Federal action conforms to the applicable implementation plan in accordance with the requirements of this subpart before the action is taken.

(c) Paragraph (b) of this section does not include Federal actions where:

(1) A National Environmental Policy Act (NEPA) analysis was completed as evidenced by a final environmental assessment (EA), environmental impact statement (EIS), or finding of no significant impact (FONSI) that was prepared prior to January 31, 1994; or

(2)(i) Prior to December 30, 1993, an environmental analysis was commenced or a contract was awarded to develop the specific environmental analysis;

(ii) Sufficient environmental analysis is completed by March 15, 1994 so that the Federal agency may determine that the Federal action is in conformity with the specific requirements and the purposes of the applicable SIP pursuant to the agency's affirmative obligation under section 176(c) of the Clean Air Act (Act); and

(iii) A written determination of conformity under section 176(c) of the Act has been made by the Federal agency responsible for the Federal action by March 15, 1994.

(d) Notwithstanding any provision of this subpart, a determination that an

action is in conformance with the applicable implementation plan does not exempt the action from any other requirements of the applicable implementation plan, the National Environmental Policy Act (NEPA), or the Clean Air Act (Act).

§ 93.151 State implementation plan (SIP) revision.

The Federal conformity rules under this subpart, in addition to any existing applicable State requirements, establish the conformity criteria and procedures necessary to meet the Act requirements until such time as the required conformity SIP revision is approved by EPA. A State's conformity provisions must contain criteria and procedures that are no less stringent than the requirements described in this subpart. A State may establish more stringent conformity criteria and procedures only if they apply equally to nonfederal as well as Federal entities. Following EPA approval of the State conformity provisions (or a portion thereof) in a revision to the applicable SIP, the approved (or approved portion of the) State criteria and procedures would govern conformity determinations and the Federal conformity regulations contained in this part would apply only for the portion, if any, of the State's conformity provisions that is not approved by EPA. In addition, any previously applicable SIP requirements relating to conformity remain enforceable until the State revises its SIP to specifically remove them from the SIP and that revision is approved by EPA.

§ 93.152 Definitions.

Terms used but not defined in this part shall have the meaning given them by the Act and EPA's regulations (40 CFR chapter I), in that order of priority. *Affected Federal land manager* means the Federal agency or the Federal official charged with direct responsibility for management of an area designated as Class I under the Act (42 U.S.C. 7472) that is located within 100 km of the proposed Federal action.

Applicable implementation plan or applicable SIP means the portion (or portions) of the SIP or most recent revision thereof, which has been approved under section 110 of the Act, or promulgated under section 110(c) of the Act (Federal implementation plan), or promulgated or approved pursuant to regulations promulgated under section 301(d) of the Act and which implements the relevant requirements of the Act.

Areawide air quality modeling analysis means an assessment on a scale that includes the entire nonattainment

(d), (e), or (f) are not included in the "total of direct and indirect emissions." The "total of direct and indirect emissions" includes emissions of criteria pollutants and emissions of precursors of criteria pollutants.

§ 93.153 Applicability.

(a) Conformity determinations for Federal actions related to transportation plans, programs, and projects developed, funded, or approved under title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 *et seq.*) must meet the procedures and criteria of 40 CFR part 51, subpart T, in lieu of the procedures set forth in this subpart.

(b) For Federal actions not covered by paragraph (a) of this section, a conformity determination is required for each pollutant where the total of direct and indirect emissions in a nonattainment or maintenance area caused by a Federal action would equal or exceed any of the rates in paragraphs (b)(1) or (2) of this section.

(1) For purposes of paragraph (b) of this section, the following rates apply in nonattainment areas (NAA's):

	Tons/year
Ozone (VOC's or NO _x):	
Serious NAA's	50
Severe NAA's	25
Extreme NAA's	10
Other ozone NAA's outside an ozone transport region	100
Marginal and moderate NAA's inside an ozone transport region:	
VOC	50
NO _x	100
Carbon monoxide:	
All NAA's	100
SO ₂ or NO ₂ :	
All NAA's	100
PM-10:	
Moderate NAA's	100
Serious NAA's	70
Pb:	
All NAA's	25

(2) For purposes of paragraph (b) of this section, the following rates apply in maintenance areas:

	Tons/year
Ozone (NO _x), SO ₂ or NO ₂ :	
All Maintenance Areas	100
Ozone (VOC's):	
Maintenance areas inside an ozone transport region	50
Maintenance areas outside an ozone transport region	100
Carbon monoxide:	
All Maintenance Areas	100
PM-10:	
All Maintenance Areas	100
Pb:	
All Maintenance Areas	25

(c) The requirements of this subpart shall not apply to the following Federal actions:

(1) Actions where the total of direct and indirect emissions are below the emissions levels specified in paragraph (b) of this section.

(2) Actions which would result in no emissions increase or an increase in emissions that is clearly de minimis:

(i) Judicial and legislative proceedings.

(ii) Continuing and recurring activities such as permit renewals where activities conducted will be similar in scope and operation to activities currently being conducted.

(iii) Rulemaking and policy development and issuance.

(iv) Routine maintenance and repair activities, including repair and maintenance of administrative sites, roads, trails, and facilities.

(v) Civil and criminal enforcement activities, such as investigations, audits, inspections, examinations, prosecutions, and the training of law enforcement personnel.

(vi) Administrative actions such as personnel actions, organizational changes, debt management or collection, cash management, internal agency audits, program budget proposals, and matters relating to the administration and collection of taxes, duties and fees.

(vii) The routine, recurring transportation of materiel and personnel.

(viii) Routine movement of mobile assets, such as ships and aircraft, in home port reassignments and stations (when no new support facilities or personnel are required) to perform as operational groups and/or for repair or overhaul.

(ix) Maintenance dredging and debris disposal where no new depths are required, applicable permits are secured, and disposal will be at an approved disposal site.

(x) Actions, such as the following, with respect to existing structures, properties, facilities and lands where future activities conducted will be similar in scope and operation to activities currently being conducted at the existing structures, properties, facilities, and lands; for example, relocation of personnel, disposition of federally-owned existing structures, properties, facilities, and lands, rent subsidies, operation and maintenance cost subsidies, the exercise of receivership or conservatorship authority, assistance in purchasing structures, and the production of coins and currency.

(xi) The granting of leases, licenses such as for exports and trade, permits,

and easements where activities conducted will be similar in scope and operation to activities currently being conducted.

(xii) Planning, studies, and provision of technical assistance.

(xiii) Routine operation of facilities, mobile assets and equipment.

(xiv) Transfers of ownership, interests, and titles in land, facilities, and real and personal properties, regardless of the form or method of the transfer.

(xv) The designation of empowerment zones, enterprise communities, or viticultural areas.

(xvi) Actions by any of the Federal banking agencies or the Federal Reserve Banks, including actions regarding charters, applications, notices, licenses, the supervision or examination of depository institutions or depository institution holding companies, access to the discount window, or the provision of financial services to banking organizations or to any department, agency or instrumentality of the United States.

(xvii) Actions by the Board of Governors of the Federal Reserve System or any Federal Reserve Bank necessary to effect monetary or exchange rate policy.

(xviii) Actions that implement a foreign affairs function of the United States.

(xix) Actions (or portions thereof) associated with transfers of land, facilities, title, and real properties through an enforceable contract or lease agreement where the delivery of the deed is required to occur promptly after a specific, reasonable condition is met, such as promptly after the land is certified as meeting the requirements of CERCLA, and where the Federal agency does not retain continuing authority to control emissions associated with the lands, facilities, title, or real properties.

(xx) Transfers of real property, including land, facilities, and related personal property from a Federal entity to another Federal entity and assignments of real property, including land, facilities, and related personal property from a Federal entity to another Federal entity for subsequent deeding to eligible applicants.

(xxi) Actions by the Department of the Treasury to effect fiscal policy and to exercise the borrowing authority of the United States.

(3) Actions where the emissions are not reasonably foreseeable, such as the following:

(i) Initial Outer Continental Shelf lease sales which are made on a broad scale and are followed by exploration

§ 93.155 Reporting requirements.

(a) A Federal agency making a conformity determination under § 93.158 must provide to the appropriate EPA Regional Office(s), State and local air quality agencies and, where applicable, affected Federal land managers, the agency designated under section 174 of the Act and the MPO a 30 day notice which describes the proposed action and the Federal agency's draft conformity determination on the action.

(b) A Federal agency must notify the appropriate EPA Regional Office(s), State and local air quality agencies and, where applicable, affected Federal land managers, the agency designated under section 174 of the Clean Air Act and the MPO within 30 days after making a final conformity determination under § 93.158.

§ 93.156 Public participation.

(a) Upon request by any person regarding a specific Federal action, a Federal agency must make available for review its draft conformity determination under § 93.158 with supporting materials which describe the analytical methods and conclusions relied upon in making the applicability analysis and draft conformity determination.

(b) A Federal agency must make public its draft conformity determination under § 93.158 by placing a notice by prominent advertisement in a daily newspaper of general circulation in the area affected by the action and by providing 30 days for written public comment prior to taking any formal action on the draft determination. This comment period may be concurrent with any other public involvement, such as occurs in the NEPA process.

(c) A Federal agency must document its response to all the comments received on its draft conformity determination under § 93.158 and make the comments and responses available, upon request by any person regarding a specific Federal action, within 30 days of the final conformity determination.

(d) A Federal agency must make public its final conformity determination under § 93.158 for a Federal action by placing a notice by prominent advertisement in a daily newspaper of general circulation in the area affected by the action within 30 days of the final conformity determination.

§ 93.157 Frequency of conformity determinations.

(a) The conformity status of a Federal action automatically lapses 5 years from the date a final conformity

determination is reported under § 93.155, unless the Federal action has been completed or a continuous program has been commenced to implement that Federal action within a reasonable time.

(b) Ongoing Federal activities at a given site showing continuous progress are not new actions and do not require periodic redeterminations so long as such activities are within the scope of the final conformity determination reported under § 93.155.

(c) If, after the conformity determination is made, the Federal action is changed so that there is an increase in the total of direct and indirect emissions, above the levels in § 93.153(b), a new conformity determination is required.

§ 93.158 Criteria for determining conformity of general Federal actions.

(a) An action required under § 93.153 to have a conformity determination for a specific pollutant, will be determined to conform to the applicable SIP if, for each pollutant that exceeds the rates in § 93.153(b), or otherwise requires a conformity determination due to the total of direct and indirect emissions from the action, the action meets the requirements of paragraph (c) of this section, and meets any of the following requirements:

(1) For any criteria pollutant, the total of direct and indirect emissions from the action are specifically identified and accounted for in the applicable SIP's attainment or maintenance demonstration;

(2) For ozone and nitrogen dioxide, the total of direct and indirect emissions from the action are fully offset within the same nonattainment or maintenance area through a revision to the applicable SIP or a similarly enforceable measure that effects emission reductions so that there is no net increase in emissions of that pollutant;

(3) For any criteria pollutant, except ozone and nitrogen dioxide, the total of direct and indirect emissions from the action meet the requirements:

(i) Specified in paragraph (b) of this section, based on areawide air quality modeling analysis and local air quality modeling analysis; or

(ii) Meet the requirements of paragraph (a)(5) of this section and, for local air quality modeling analysis, the requirement of paragraph (b) of this section;

(4) For CO or PM-10—

(i) Where the State agency primarily responsible for the applicable SIP determines that an areawide air quality modeling analysis is not needed, the total of direct and indirect emissions

from the action meet the requirements specified in paragraph (b) of this section, based on local air quality modeling analysis; or

(ii) Where the State agency primarily responsible for the applicable SIP determines that an areawide air quality modeling analysis is appropriate and that a local air quality modeling analysis is not needed, the total of direct and indirect emissions from the action meet the requirements specified in paragraph (b) of this section, based on areawide modeling, or meet the requirements of paragraph (a)(5) of this section; or

(5) For ozone or nitrogen dioxide, and for purposes of paragraphs (a)(3)(11) and (a)(4)(ii) of this section, each portion of the action or the action as a whole meets any of the following requirements:

(i) Where EPA has approved a revision to an area's attainment or maintenance demonstration after 1990 and the State makes a determination as provided in paragraph (a)(5)(i)(A) of this section or where the State makes a commitment as provided in paragraph (a)(5)(i)(B) of this section:

(A) The total of direct and indirect emissions from the action (or portion thereof) is determined and documented by the State agency primarily responsible for the applicable SIP to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would not exceed the emissions budgets specified in the applicable SIP;

(B) The total of direct and indirect emissions from the action (or portion thereof) is determined by the State agency responsible for the applicable SIP to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would exceed an emissions budget specified in the applicable SIP and the State Governor or the Governor's designee for SIP actions makes a written commitment to EPA which includes the following:

(1) A specific schedule for adoption and submittal of a revision to the SIP which would achieve the needed emission reductions prior to the time emissions from the Federal action would occur;

(2) Identification of specific measures for incorporation into the SIP which would result in a level of emissions which, together with all other emissions in the nonattainment or maintenance area, would not exceed any emissions budget specified in the applicable SIP;

(3) A demonstration that all existing applicable SIP requirements are being implemented in the area for the pollutants affected by the Federal action, and that local authority to

(2) The year during which the total of direct and indirect emissions from the action is expected to be the greatest on an annual basis; and

(3) Any year for which the applicable SIP specifies an emissions budget.

§ 93.160 Mitigation of air quality impacts.

(a) Any measures that are intended to mitigate air quality impacts must be identified and the process for implementation and enforcement of such measures must be described, including an implementation schedule containing explicit timelines for implementation.

(b) Prior to determining that a Federal action is in conformity, the Federal agency making the conformity determination must obtain written commitments from the appropriate persons or agencies to implement any mitigation measures which are

identified as conditions for making conformity determinations.

(c) Persons or agencies voluntarily committing to mitigation measures to facilitate positive conformity determinations must comply with the obligations of such commitments.

(d) In instances where the Federal agency is licensing, permitting or otherwise approving the action of another governmental or private entity, approval by the Federal agency must be conditioned on the other entity meeting the mitigation measures set forth in the conformity determination.

(e) When necessary because of changed circumstances, mitigation measures may be modified so long as the new mitigation measures continue to support the conformity determination. Any proposed change in the mitigation measures is subject to the reporting requirements of § 93.156 and

the public participation requirements of § 93.157.

(f) The implementation plan revision required in § 93.151 shall provide that written commitments to mitigation measures must be obtained prior to a positive conformity determination and that such commitments must be fulfilled.

(g) After a State revises its SIP to adopt its general conformity rules and EPA approves that SIP revision, any agreements, including mitigation measures, necessary for a conformity determination will be both State and federally enforceable. Enforceability through the applicable SIP will apply to all persons who agree to mitigate direct and indirect emissions associated with a Federal action for a conformity determination.

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Document Separator

ask to know the project.

close only to
except NEPA
when it was for
would to BRAC.

Frank Sheffield - A clean Air specialist - E-Mail

Sarah Schneeburg - EPA - office of Govt Council.

A conformity determination is required ~~before~~ before a

Nov. '93 conformity determ is required within the BRAC
decisionmaking process.

Regardless of whether.

Commission changed to agree with

The fact that the Ocean is now attainment & cherry point
is

No interest on behalf of the Navy in contacting the EPA -
Hampton -

VA is fighting reclassification -

Director of EPA - was going to elevate ~~the~~ classification for
moderate & marginal.

Material or significant environ. issues

A report to these

"Putting things out" based on an incoherent promise to
develop -

in violation - based on further decreases.

You need documentation in hand based on in.

When the question is asked, the question isn't premised on how US later isn't it important that they give pre-emptive decision on joint effectiveness decision

Even if it's "unripe".

The BRAC commissioner's obligation.

Can the Navy help out the commissioner & give us some ~~idea~~ info if error

what's likely to be state affairs.

found CAT requirements: New York's - what does the commission need to make a ruling is final decision

- you need to get EPA or R on your back in order.

based on a fact - you need a fact - you need a fact - cannot get out from aircraft emission activity.