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MINUTES AND AGENDA FROM 19 MAY 1997 RESTORATION ADVISORY BOARD MEETING  
NAS KEY WEST FL  
5/19/1997  
NAVAL FACILITIES ENGINEERING COMMAND SOUTHERN DIVISION

**RESTORATION ADVISORY BOARD  
NAVAL AIR STATION KEY WEST**

**Meeting Location:  
Holiday Inn Beachside  
N. Roosevelt Blvd., Key West**

**Meeting Date/Time:  
May 19, 1997; 7:00 p.m.**

**Meeting Agenda:**

Welcome  
Introduction of New RAB Members and Self-Introductions  
Public Comment Management for this Meeting  
Old Business  
- Susan Loder -  
Community Co-Chair

Update of FY1998 Budget Process  
- Dudley Patrick -  
Southern Engineering Field Division

Update of ERNA Site Cleanups  
- Roy Hoekstra -  
Bechtel Environmental, Inc.

Update of ERNA Site Studies  
- Chuck Bryan -  
Brown and Root Environmental

Update of BRAC Site Studies  
- Chuck Bryan -

Potential Topics for Next Meeting (July 28, 1997)

Update of ERNA Site Cleanups  
Update of ERNA Site Studies  
Update of BRAC Site Studies  
- Susan Loder and Ron Demes -

Adjournment and Invitation  
- Susan Loder -

Poster Session and Coffee

**ENCLOSURE (2)**

**NAVAL AIR STATION KEY WEST  
RESTORATION ADVISORY BOARD  
PUBLIC MEETING SUMMARY**

7:00 p.m.  
May 19, 1997  
Holiday Inn Beachside  
Key West, Florida

**Restoration Advisory Board (RAB) Members Present:**

Ron Demes, Navy Co-Chair  
Susan Loder, Community Co-Chair  
Dudley Patrick, Southern Division, Naval Facilities Engineering Command  
Martha Berry, U. S. Environmental Protection Agency Region IV  
Jorge Caspary, Florida Department of Environmental Protection  
Robin Orlandi, Community Member  
Mimi Stafford, Community Member  
Donna Perez, Community Member  
Michael Ingram, Community Member  
Jim Smith, Community Member

**Other Navy and contractor personnel present who are directly related to the RAB:**

Phillip Williams, NAS Key West Public Works Office  
Mark P. Ewing, NAS Key West Resident Officer in Charge  
LT. Jonathan Hupp, NAS Key West Public Affairs Officer  
Jim Reed, Southern Division, Naval Facilities Engineering Command  
Karen Snodgrass, Southern Division, Naval Facilities Engineering Command  
Roy Hoekstra, Bechtel Environmental, Inc.  
Chuck Bryan, Brown & Root Environmental

**Others in attendance (who signed the attendance sheet):**

W. H. Harrison, City of Key West, Local Redevelopment Authority  
Amy Kimball, Bermello, Ajamil & Partners, Inc.  
Alan Woolwich, Florida Areas of Critical State Concern  
Rev. Barbara Black, Plan 1999, Key West, Florida  
Cecile Daniels, Key West, FL  
Thomas Price, Key West, FL  
Mrs. W. H. Harrison, Key West, FL  
Pat Valerga, Florida Keys Outreach Coalition for the Homeless  
Pat McNeese, Summerland Key, FL  
R. L. Blazevic, Key West, Florida

## Welcome

Ms. Loder opened the meeting, welcomed the attendees and introduced Ms. Perez, who has replaced Mr. Pierce as a community RAB member. Ms. Loder also introduced Mr. Ingram as a new community RAB member. The other RAB members then introduced themselves.

## Public Comment Management for This Meeting

Ms. Loder suggested that the public could make comments and ask questions at the conclusion of each presentation. The RAB concurred with this suggestion.

## Old Business

Ms. Loder asked for and received RAB approval of the March 31, 1997 RAB meeting minutes. Ms. Loder explained that an action item list was distributed to the RAB with the announcement of the May meeting. The purpose of the action item list is to track progress of those activities that pertain to the NAS Key West RAB. The status of the following action items were discussed:

- Mr. Williams reported that NAS Key West environmental personnel are working on writing an article about the RAB to be published in the local paper.
- Mr. Bryan reported that comments on the comprehensive background report have not yet been received from Florida Department of Environmental Protection (FDEP) and U.S. Environmental Protection Agency (EPA) personnel. Comments have been received from two RAB community members. Responses to all comments will be distributed after receipt of all comments.
- Ms. Snodgrass reported that she had spoken to Mr. Harrison regarding the need for environmental studies at Base Realignment and Closure (BRAC) properties that are transferred to another federal agency. Mr. Harrison indicated that he is satisfied with Ms. Snodgrass's response to his question.

## NAS Key West Installation Restoration Program Budget Update

Mr. Patrick noted to the RAB that the budget is a moving target. He described a recent budget cut that affected the fiscal year (FY) 1997 environmental budgets at many Navy facilities throughout the southern division. Mr. Patrick pointed out that the budget cuts had little impact on the Environmental Restoration. Navy Account (ERNA) sites at NAS Key West because funding at these sites was for the most part, already obligated. He added that about \$700 thousand was cut from the FY 1997 BRAC budget account for NAS Key West. He also mentioned that the remaining BRAC funds are not secure because they are not obligated and Key West is still developing its reuse plan for the BRAC properties. Mr. Patrick concluded by summarizing the remaining steps that are involved in developing the FY 1998 budget.

In response to a question, Mr. Patrick explained that the schedule for all environmental work at NAS Key West is highly dependent on the acquisition of timely funding. He explained that he will be in a position to capture any windfall funds that often appear at the end of the fiscal year. Capturing such funds will put the BRAC sites within a few months of the original schedule. Mr. Patrick added that he expects to obtain BRAC funds early in FY 1998 to make up for any work that was not funded in FY 1997.

#### Update on Interim Remedial Activities

Mr. Hoekstra reviewed the remediation status of two sites: the Jet Engine Test Cell [Solid Waste Management Unit (SWMU) 9] and the Fleming Key Landfill [Installation Restoration Site 8 (IR 8)]. The pump-and-treat system at SWMU 9, which was installed in July 1996 to contain a groundwater plume of solvent-related compounds, has continued to operate within its specified parameters. Maintenance and repair of this system occur as needed. Mr. Hoekstra showed several graphs depicting contaminant influent and effluent concentrations at the treatment plant. In general, contaminant concentrations appear to be decreasing over time. The Navy will continue to take data at SWMU 9 to determine current groundwater contamination levels, and will evaluate the data against cleanup goals. Eventually, the groundwater contamination levels will be reduced to levels that will allow the system to be shut down. Mr. Hoekstra also discussed the chemical reactions involved in the breakdown of trichloroethylene (TCE) in the environment.

Mr. Hoekstra reported that the Interim Remedial Action (IRA) at site IR 8 is about two-thirds complete. The IRA involves the construction of a shoreline protection system on about 1,800 linear feet of shoreline on the southwest portion of Fleming Key. He noted that about \$45 thousand were saved by using fill material from environmental activities at the Trumbo Point Fuel Farm. The IRA is scheduled for completion in June 1997. Mr. Hoekstra concluded with several photographic slides of current IRA activities at site IR 8.

In response to a question, Mr. Hoekstra explained that the shoreline protection system was designed for the rapid currents that often occur in the channel between Fleming Key and Trumbo Point. He added that the cable used to tie the cement blocks together in the shoreline protection system are made from high-strength plastics that will last much longer than steel cables would in the marine environment.

#### Update of Environmental Restoration Navy Account Site Studies

Mr. Bryan reviewed the 12 ERNA sites at NAS Key West. He noted that the Navy and the regulators had recently resolved the remaining outstanding issues associated with the Resource Conservation and Recovery Act (RCRA) Facility Investigation and Remedial Investigation (RFI/RI) report for the four high-priority sites on Boca Chica Key. In addition, the Navy and the regulators have agreed to incorporate recently-discovered data from an investigation conducted in 1990 into the RFI/RI reports for all 12 sites. He concluded that the RFI/RI report for the eight additional sites is scheduled to be distributed to all RAB members by June 16, 1997.

## Update of Base Realignment and Closure Site Studies

Mr. Bryan provided an extended discussion of the Data Quality Objectives (DQO) process that is being employed for performing site inspections at the Base Realignment and Closure (BRAC) sites. He added that problem statements have been drafted and reviewed by EPA and FDEP. The Key West Partnering Team (a formalization of the project team) will be discussing the problem statements in greater detail during meetings on May 20 and 21, 1997. The Partnering Team will then continue with performing the remaining DQO steps until a final consensus is reached. Then, a sampling and analysis plan will be prepared based on the results of the DQO process.

An extended discussion relating primarily to the timing of events associated with turnover of the BRAC properties followed Mr. Bryan's presentation. Much of this discussion focused on Poinciana Housing and the high demand for housing in Key West. Ms. Snodgrass reiterated that a lead-based paint survey conducted at Poinciana Housing is the primary reason that it was designated as a "gray" property, which means that additional environmental information is required prior to transfer of the property. Mr. Harrison pointed out that the funding process used by the federal government for BRAC properties doesn't necessarily work well for residential units because they require maintenance that is significantly different from industrial properties.

## Potential Topics for Next Meeting (July 28, 1997)

Ms. Loder and the RAB agreed that the next meeting would include the following topics:

- Update of ERNA Site Cleanups
- Update of ERNA Site Studies
- Update of BRAC Site Studies

Ms. Loder and Mr. Williams agreed to set up a tour of the BRAC properties for any interested RAB members.

## Adjournment

Ms. Loder adjourned the meeting at approximately 9:00 p.m.

The next page lists the open and any recently-closed RAB action items

## Restoration Advisory Board Action Items

No.	Date Assigned	Action Item	Person	Status
1)	01-28-97	Write Newspaper Article About RAB for Local Paper	P. Williams	Working
2)	01-28-97	Finalize FY 1998 Execution Plan	D. Patrick	Working
3)	03-31-97	Comment on Comprehensive Background Report	RAB	Working
4)	03-31-97	Provide an answer to Bill Harrison Regarding Environmental Requirements for Federal Agency to Federal Agency Transfers	K. Snodgrass	Closed
5)	03-31-97	Draft Responses to Comments on Comprehensive Background Report, Review Responses with Partnering Team	C. Bryan	Working
6)	05-19-97	Distribute RFI/RI Report for Eight Additional Sites to RAB	C. Bryan	Open
7)	05-19-97	Set Up and Conduct Tour of BRAC Sites for RAB	S. Loder P. Williams	Open



## NAS Key West IR Program Budget Update

Dudley Patrick  
Southern Division, NAVFACENGCOM  
May 19, 1997



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## ERNA Budget Cut

- 1 May 1997 letter from Headquarters reduces SOUTHDIV's FY 1997 funding target from \$39.2M to \$32.3M
- Several factors cited
  - a \$15M FY 1997 congressional reduction (single largest impact)
  - increased cost of historical radiological assessments
  - increased costs for DSMOA
  - increased activity salary support costs
  - increased RAB support costs
  - increased SCAPS support costs



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## Impact - ERNA Projects

- Little, since most FY 1997 projects already awarded, funds already obligated
- Only 2 small projects left to award
  - SWMU 9 Jet Engine Test Cell O&M to NAS
  - CAMP update (new item) to B&R
- Have provided rationale to EPVT why these 2 projects should not be cut at this time



## BRAC Budget Cut

- In March 1997, the total FY 1997 BRAC IV budget for SOUTHDIV was cut, affecting some Key West IR projects
- Projects retained for FY 1997 award include all Truman Annex Site Inspections
  - Zone F, Bldg 223
  - Zone C, DRMO Waste Storage Area
  - Zone D, Seminole Battery
  - Zone K, PW Maintenance Facility
  - Zone E, Bldgs 102, 103, & 104





## Impact - BRAC Projects

- Available budget reduced from \$1.6M to \$0.9M
- Projects to be “rolled” over into the FY 1998 budget include the remaining BRAC Site Inspections
  - Zone B, East Martello Battery
  - Zone H, Trumbo Point Piers D1 and D3
  - Zone A, Hawk Missile Site
  - Zone I, Trumbo Point Bldg 48
  - Zone G, Poinciana Housing



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## FY 1998 Budget Process/Timetable

- |                 |   |
|-----------------|---|
| January 1997    | <ul style="list-style-type: none"> <li>• RPMs determined which ERNA and BRAC projects they could accomplish in FY 1998 and shared list with activity personnel, regulators, and public stakeholders.</li> </ul> |
| March 1997      | <ul style="list-style-type: none"> <li>• RPMs and SOUTHDIV Environmental Project Validation Team (EPVT) met to discuss projects and scored them based on inputs received from stakeholders.</li> </ul>          |
| March 1997      | <ul style="list-style-type: none"> <li>• EPVT prioritized all projects within SOUTHDIV's jurisdiction and developed a draft execution plan (budget) that satisfied FY 1998 funding targets.</li> </ul>          |
| Late March 1997 | <ul style="list-style-type: none"> <li>• SOUTHDIV submitted draft execution plan to Headquarters per Comptroller request.</li> </ul>  |



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## Revised FY 1998 Budget Process/Timetable

- May 1997
- EPVT evaluate those FY 1997 projects adversely affected by May 1997 budget cuts. "Roll" them into the draft FY 1998 plan.
- Early June 1997
- SOUTHDIV distribute the "adjusted" FY 1998 budget to all stakeholders for 2nd review and comment. RPM share with RAB and public.
- Late September 1997
- SOUTHDIV make any last minute adjustments to the execution plan based on changes to the ERNA or BRAC programs that may have occurred since the March 1997 submission. For example, some FY 1997 projects may be delayed or cut and will need to be included in the FY 1998 execution plan.





# Update of ERNA Site Studies

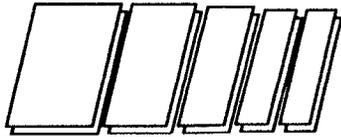
Chuck Bryan  
Brown & Root Environmental  
May 19, 1997



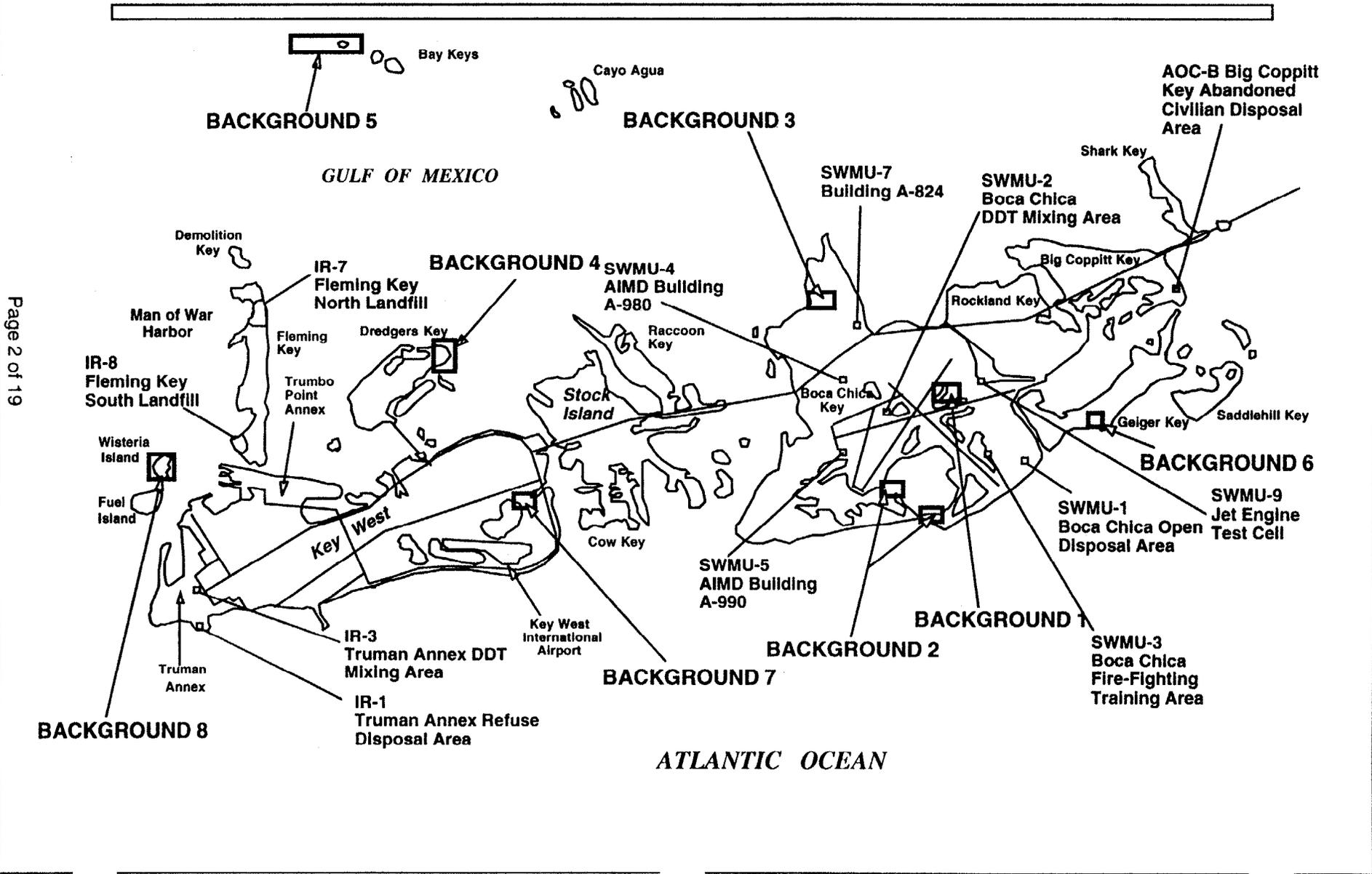
## 12 ERNA Sites - Background

- Work Plan for conducting sampling and surveys at 12 ERNA sites was finalized in December 1995
  - 7 Solid Waste Management Units (SWMUs)
  - 4 Installation Restoration (IR) Sites
  - 1 Area of Concern (AOC)
  - 8 Facility-Wide Background Locations
- Navy (HQ) funding restraints required that the field sampling and surveys be conducted in two phases





# ERNA Site Location Map





## **Four High-Priority Sites on Boca Chica Key**

- **Scope included Supplemental RFI investigation activities at SWMUs 1, 2, 3 and 9**
- **Field sampling and surveys performed in January 1996**
- **Rev. 1 RFI/RI report submitted to the regulators and RAB on September 27, 1996**
- **All comments received from Navy, RAB and regulators on the Rev. 1 report**
  - **Responses to comments drafted and sent to commentors**



## Four High-Priority Sites on Boca Chica Key

(continued)

- **Progress made since March 31, 1997**
  - **Comment resolution conference call among Navy, EPA and FDEP held on April 28, 1997**
    - Resolved final outstanding ecological risk assessment issues
    - Changes in methodology for data analyses will be incorporated into report for eight sites
  - **The Navy decided to incorporate recently-discovered data from the IT 1991 report into Rev. 2 of the RFI report**



## Four High-Priority Sites on Boca Chica Key

(continued)

- **Activities planned for the next two months**
  - **Revise the CAMP to reflect new due dates**
    - Rev. 2 of the RFI report
    - Rev. 1 CMS reports for SWMUs 1 and 2
  - **Discuss status of SWMU 9 groundwater treatment system at Partnering Team meeting on June 16 and 17, 1997**
  - **Identify remaining activities for SWMU 3 - No Further Action**



**██████████**

## Four High-Priority Sites on Boca Chica Key

*(continued)*

- **Activities planned for the next two months (continued)**
  - Incorporate IT 1991 data into Rev. 2
  - Develop a discussion paper describing the modifications to the RFI/RI report between Rev. 1 and Rev. 2
  - Finalize Rev. 2 and distribute
  - Begin final regulatory review of RFI/RI report



**██████████**

## Eight Additional NAS Key West Sites

- **Scope included Supplemental RFI/RI investigation activities at SWMU 4, SWMU 5, SWMU 7, IR 1, IR 3, IR 7, IR 8, and AOC B**
- **Field sampling and surveys performed from August to October 1996**
- **Comprehensive background report delivered to RAB on March 31, 1997**





## **Eight Additional NAS Key West Sites**

*(continued)*

- **Progress made since March 31, 1997**
  - **Received comments from two community RAB members on the comprehensive background report**
    - **Comments still pending from EPA and FDEP**
  - **Incorporated recently discovered data from IT 1991 report into data sets for the eight sites**



## **Eight Additional NAS Key West Sites**

*(continued)*

- **Progress made since March 31, 1997 (continued)**
  - **Drafted Nature and Extent, Fate and Transport, Baseline Human Health Risk Assessment, and Ecological Risk Assessment sections for the RFI/RI report**
    - **Began internal review process on RFI/RI report**





## **Eight Additional NAS Key West Sites**

*(continued)*

- **Activities planned for the next two months**
  - **Prepare and distribute Rev. 1 RFI/RI report for the eight additional sites to the RAB by June 16, 1997**
    - **Begin 60-day review of Rev. 1 RFI/RI report for the eight additional sites upon delivery**
  - **Revise CAMP due dates for RFI/RI and CMS reports**
  - **Respond to all comments on the comprehensive background report**



## **Update of BRAC Site Studies**

**Chuck Bryan  
Brown & Root Environmental  
May 19, 1997**



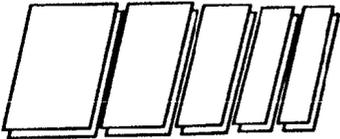


## Update of BRAC Site Studies

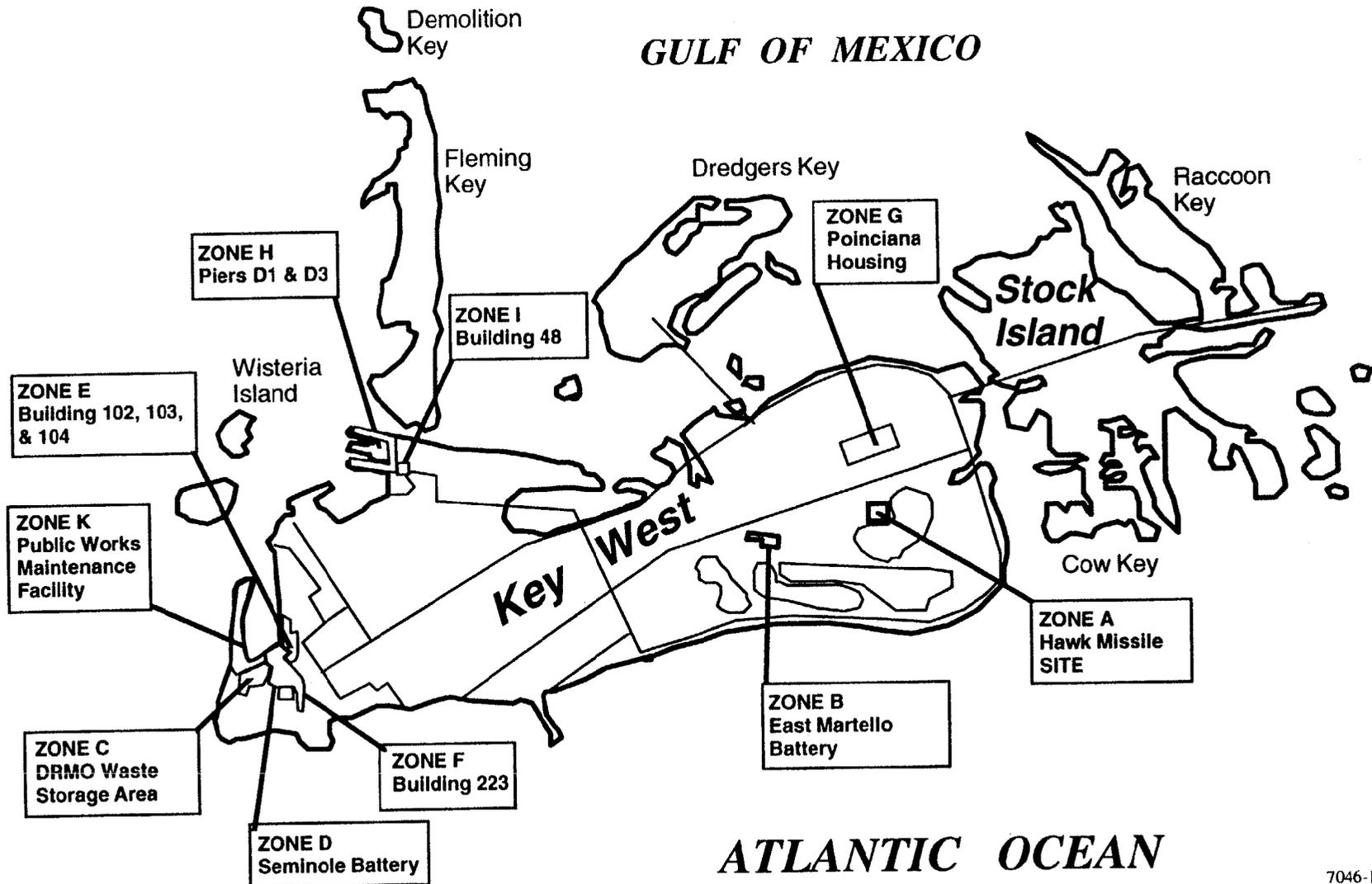
- **Scope covers 10 properties identified as “Gray” during environmental baseline study (EBS)**
- **Additional data is required regarding the environmental condition of these properties prior to transfer from the Navy**
- **The Navy is implementing EPA’s data quality objectives (DQO) process for scoping the proposed sampling of environmental media at the BRAC properties**



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# BRAC Zone Location Map





## Overview of the DQO Process

- **Step 1 - State the problem**
- **Step 2 - Identify the decision**
- **Step 3 - Identify inputs to the decision**
- **Step 4 - Define the study boundaries**
- **Step 5 - Develop a decision rule**
- **Step 6 - Specify tolerable limits on decision errors**
- **Step 7 - Optimize the design for obtaining data**



## DQO Step 1 - State the Problem

- **Clearly define the problem to focus the study on only those activities that will lead to a solution**
  - **Identify the planning team and a decision-maker**
  - **Develop a concise description of the problem**
  - **Specify available resources and relevant deadlines for the study**
- **Sample problem description**
  - **Obtain data to fill gaps identified in EBS**





## DQO Step 1 - State the Problem

*(Examples)*

- **Select a planning team composed of Navy Southern Division, NAS Key West Public Works Environmental and B&R Environmental personnel**
- **Select the NAS Key West Partnering Team as the primary decision-maker**
- **Use Southern Division BRAC, NAS Key West Public Works Environmental, B&R Environmental personnel, regulators and members of the public as resources**



## DQO Step 1 - State the Problem

*(Examples)*

- **Set a deadline for drafting the work plan documents that will allow allocation of FY 1997 BRAC funds for field activities**





## DQO Step 2 - Identify the Decision

- **Define the decision statement that the study will attempt to resolve**
  - Identify the principal study question
  - Define alternative actions that could result from the principal study question
  - Combine the principal study question and alternative actions into a decision statement
  - Organize multiple decisions



## DQO Step 2 - Identify the Decision

*(Examples)*

- **What additional data is required to determine the environmental condition of the BRAC properties?**
- **Obtain data about the environmental media**
  - The property is suitable for transfer
  - The property is not suitable for transfer
- **A possible decision statement**
  - Obtain environmental data to support a determination of suitability for property transfer at the ten BRAC properties





### DQO Step 3 - Identify Inputs

- **Identify the informational inputs that will be required to resolve the decision statement and determine which inputs require environmental measurements**
  - Identify the information and sources that will be required to resolve the decision statement
  - Identify the information that is needed to establish an action level
  - Confirm that appropriate measurements can be made



### DQO Step 3 - Identify Inputs

*(Examples)*

- **Need environmental information about the BRAC properties**
  - Environmental Baseline Study (EBS)
  - Documents and records referenced by EBS
  - Regulatory guidances on site inspections, quality assurance project plans and DQOs
  - DoD guidance on BRAC and CERCLA
  - Environmental sampling





## DQO Step 4 - Define Study Boundaries

- **Define spatial and temporal boundaries that are covered by the decision statement**
  - Specify the characteristics that define the population of interest
    - ➔ Divide the population into homogeneous strata
  - Define a geographical area within which all decisions must apply
  - Determine a timeframe to which the decision applies



## DQO Step 4 - Define Study Boundaries

*(continued)*

- **Define spatial and temporal boundaries that are covered by the decision statement**
  - Determine when to collect data
  - Define the scale of decision making
  - Identify any practical constraints on data collection





## DQO Step 4 - Define Study Boundaries

(Examples)

- For soil, we may divide the BRAC properties into several units that are expected to yield chemical concentrations at similar levels (homogeneous) and focus only on surface soil
- For surface water, each body of water may be assumed to contain homogeneous levels of chemicals
- Assume that chemical concentrations detected during field events will continue indefinitely
- Collecting data ASAP will benefit the BRAC process



## DQO Step 5 - Develop a Decision Rule

- Define the parameter of interest, specify the action level, and integrate previous DQO outputs into a single statement that describes a logical basis for choosing among alternative actions
  - Specify the statistical parameter that characterizes the population
  - Specify the action level for the study
  - Combine the outputs into an “if...then” decision rule



## **DQO Step 5 - Develop a Decision Rule**

*(Examples)*

- **Lead in soil is the parameter of interest**
- **400 parts per million is the selected action level (Resource Conservation and Recovery Act, Subpart S)**
- **Sample decision rules**
  - **If the true mean value of lead in soil is greater than 400 parts per million, then the site requires additional investigation under an RI/FS**
  - **If the true mean value of lead in soil is less than 400 parts per million, then the site is suitable for transfer**

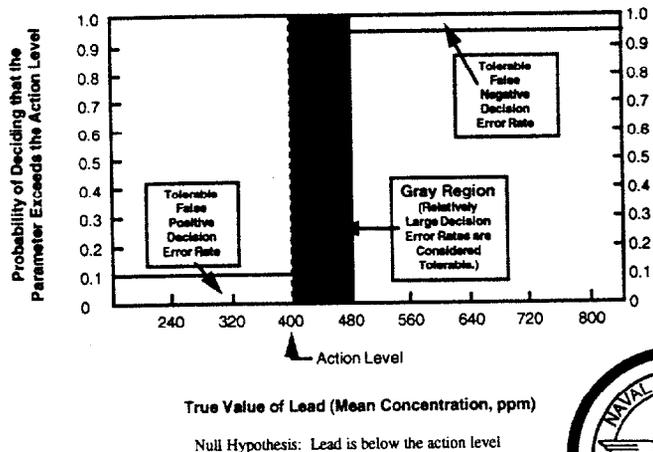


## **DQO Step 6 - Limit Decision Errors**

- **Specify the decision-maker's tolerable limits on decision errors**
  - **Determine the possible range of the parameter of interest**
  - **Identify the decision errors and choose a null hypothesis**
  - **Specify a range of possible parameter values where the consequences of decision errors are relatively minor**
  - **Assign probability values for the occurrence of decision errors**



## DQO Step 6 - Limit Decision Errors



## DQO Step 7 - Optimize the Sampling Design

- Identify a resource-effective data collection design for generating data that are expected to satisfy the DQOs
  - Review DQO outputs and existing environmental data
  - Develop general data collection design alternatives
  - Formulate the mathematical expressions needed to solve the design problems for each design alternative
  - Select the optimal sample size that satisfies the DQOs for each design alternative





## DQO Step 7 - Optimize the Sampling Design

*(continued)*

- **Identify a resource-effective data collection design for generating data that are expected to satisfy the DQOs**
  - Select the most resource-effective design that satisfies all of the DQOs
  - Document the operational details and theoretical assumptions of the selected design in the sampling and analysis plan



## DQO Step 7 - Optimize the Sampling Design

*(Examples)*

- Use existing site data from ERNA site investigations
- Use a combination of random and biased sampling schemes
- Use the mean value from analytical laboratory results
- Apply a t-test to the data to determine statistical variability and calculate the number of samples
- Apply cost functions to relate the number of samples to total cost of performing sampling and analyses





## Update of BRAC Site Studies

(continued)

- **Progress made since March 31, 1997**
  - **Began development of problem statements for scoping field activities during SI**
  - **Discussed initial draft problem statements with EPA and FDEP April 23-24, 1997**
  - **Began preparing rough drafts documenting DQO steps 2 through 7**



## Update of BRAC Site Studies

(continued)

- **Activities planned for the next two months**
  - **Complete the DQO process with the regulators**
    - **Partnering Team meeting scheduled for May 20 to 21, 1997, in Key West to discuss Step 1 issues**
    - **Partnering Team meeting scheduled for June 16 to 17, 1997, in Atlanta to continue DQO discussion**
  - **Continue Developing Work Plan documents**
  - **Award SI field work phase**

