



DEPARTMENT OF THE NAVY

INDIAN HEAD DIVISION
NAVAL SURFACE WARFARE CENTER
101 STRAUSS AVE
INDIAN HEAD MD 20640-5035

5090
Ser 046C/58
22 Mar 99

Mr. Elmer Biles
6315 Indian Head Highway
Indian Head, MD 20640

Dear Mr. Biles:

We are forwarding the minutes from the Installation Restoration (IR) Program Restoration Advisory Board (RAB) meeting that was held on Thursday, February 18, 1999, enclosure (1). This meeting was the first one to be held at the Indian Head Senior Center, which is located at 100 Cornwallis Square, Indian Head, Maryland, 20640.

Please note that the next RAB meeting is scheduled for Thursday, June 17, 1999, from 7:00 - 9:00 p.m. Please be sure to mark this date on your calendar if you have not already done so. Once again, the meeting will be held at the Indian Head Senior Center.

In addition, we are forwarding a copy of the draft final Remedial Investigation (RI) Report for IR Sites 12 (Town Gut Landfill), 39/41 (Organics Plant/Scrap Yard), 42 (Olsen Road Landfill), and 44 (Soak Out Area) to all RAB members. A copy of the report will be placed in the Information Repositories, located at the Activity's General Library (Building D-40) and the Charles County Public Library, La Plata Branch, for all others that may be interested in reviewing it.

We request that you provide your comments on the draft final RI Report to us by Friday, April 23, 1999. Your comments may be sent to the attention of Code 046C at the address above, or you may fax your comments to (301) 744-4180.

We would like to thank those of you that attended the meeting once again and hope to see you at the next RAB meeting on Thursday, June 17, 1999, at the Indian Head Senior Center.

5090
Ser 046C/58

If you have any additional comments or questions concerning these matters, you may contact Mr. Shawn Jorgensen on (301) 743-6745.

Sincerely,



SUSAN P. ADAMS
Head, Safety Department
By direction of the Commander

Encl:

(1) Minutes from RAB Meeting of 18 Feb 99

Copy to:

RAB Members

EFACHES (Code 181)

Meeting Attendees

Interested Parties

INSTALLATION RESTORATION PROGRAM



INDIAN HEAD DIVISION,
NAVAL SURFACE WARFARE CENTER
101 STRAUSS AVENUE
INDIAN HEAD, MARYLAND
20640-5035



RESTORATION ADVISORY BOARD (RAB) MEETING

Date of Meeting: February 18, 1999

Restoration Advisory Board (RAB) Member Participants:

Ms. Susan Adams (N) *	Mr. John McDevitt (C)
Mr. Elmer Biles (C)	Mr. Fred Pinkney (F)
Mr. Vincent Hungerford (C) *	Mr. Robert Sadorra (N)
Mr. Kim Lemaster (S)	Ms. Margaret Stewart (L)

RAB Members Not in Attendance:

Ms. Celia Carroll (C)	Mr. Stephen Elder (L)
Ms. Lynn Covington (C)	Mr. Charles Ellison (C)
Mr. Gary Davis (L)	Mr. Dennis Orenshaw (F)

Additional Attendees:

Ms. Sherry Deskens (N)	Ms. Claire Parker (C)
Mr. William Hudson (F)	Mr. William Parker (C)
Mr. Shawn Jorgensen (N)	Mr. Mark Yeaton (C,N)

* Co-Chair

C = Community
F = Federal Official
L = Local Official
N = Navy Official
S = State Official

Major Issues Discussed/Accomplished:

1. Meeting Introduction

Ms. Susan Adams of the Indian Head Division, Naval Surface Warfare Center (IHDIV-NSWC) began the meeting by welcoming everyone to our new location, the Indian Head Senior Center. She stated that all of the meetings that will be held in calendar year 1999 will be located at the Senior Center.

Ms. Adams also introduced a new member from the Charles County Department of Planning and Growth Management, Ms. Margaret Stewart. Ms. Stewart has taken the place of Ms. Patricia Haddon on the Restoration Advisory Board (RAB).

Ms. Adams then presented the meeting agenda, which is included as Attachment A.

2. IR Site 57 Removal Action and Remedial Investigation Status

Mr. Shawn Jorgensen of IHDIV-NSWC discussed the removal action work that was performed at IR Site 57. Mr. Jorgensen provided a brief background of the site, including the fact that it was discovered when trichloroethylene (TCE) was found in Industrial Wastewater Outfall (IW) 80 at approximately 62 parts per billion (ppb).

Groundwater containing TCE was found to be infiltrating the storm sewer pipe leading to IW80. Under the Navy Installation Restoration Program, the quickest way to handle the immediate problem is to perform a Removal Action. Therefore, an Engineering Evaluation and Cost Analysis (EECA) was prepared to determine the best method to reduce/eliminate the TCE from infiltrating the pipe. Relining of the pipe was determined by the EECA to be the most efficient and cost effective method.

A video inspection of the pipe showed that approximately 100 feet of pipe in front of Building 292 might not be able to be relined, because of its poor condition. Therefore, pipe removal in this location seemed likely and the EECA was amended to reflect this possibility. However, upon further inspection of the video, the contractor determined that relining was possible. Therefore, the pipe relining was completed in October 1998. Since the pipe was relined, the amount of TCE in IW80 (based on one sample) has dropped from 62 to 20 ppb.

Mr. Jorgensen also discussed the current Remedial Investigation (RI) efforts at IR Site 57. In anticipation of possible pipe removal, as discussed above, the RI work was broken up into two phases. The first phase included obtaining soil and groundwater

samples near Building 292 and the storm sewer pipe to locate possible hot spots of TCE that could be easily addressed during pipe removal. The second phase the RI included taking the remaining soil, sediment, groundwater, and surface water samples as described in the Project Specific RI Work Plan of May 1997.

A copy of Mr. Jorgensen's presentation is provided in Attachment B.

3. IR Sites 12, 39/41, 42, and 44 Remedial Investigation Report Status

Mr. Robert Sadorra of the Engineering Field Activity Chesapeake provided the status of the Remedial Investigation Report for IR Sites 12 (Town Gut Landfill), 39/41 (Scrap Yard), 42 (Olsen Road Landfill), and 44 (Soak Out Area).

Comments on the draft report were received from the U.S. Fish and Wildlife Service, the U.S. EPA Biological Technical Assistance Group (BTAG), and the Navy Environmental Health Center (NEHC).

The draft final report is expected on March 5, 1999. Copies of the report will be sent to RAB members for their review and comment. In addition, a copy of the report will be placed in the Information Repositories for public review and comment.

The next phase for these sites is a Feasibility Study (FS). Some fieldwork will be conducted as part of the FS, including test pits to better define the extent of the landfills, and polychlorinated biphenyl (PCB) field test kits to better define the extent of PCB contamination at the Scrap Yard. Fieldwork is scheduled to be conducted in May 1999, and the draft FS report is expected by September 30, 1999.

A copy of Mr. Sadorra's presentation is included in Attachment C.

4. IR Sites 47 and 53, Remedial Investigation Status

Mr. Sadorra provided a brief background of IR Sites 47 (Mercuric Nitrate Disposal Area) and 53 (Mercury in the Sewage System) and discussed the Remedial Investigation work that is scheduled to be performed this fiscal year, providing that funding is available.

A copy of Mr. Sadorra's presentation is included as Attachment C.

5. Mattawoman Creek Study

Mr. Rob Sadorra provided a brief status of the Mattawoman Creek Study that is scheduled to begin in fiscal year 1999. Phase I includes a screening-level ecological risk assessment (ERA), with a final report expected in November 1999. Phase II includes the preparation of a proposed approach to accurately prepare an ERA of the Mattawoman Creek. The final phase II report is due in February 2000.

A copy of Mr. Sadorra's presentation is included in Attachment C.

6. Ecological Risk Presentation

Mr. Fred Pinkney of the U.S. Fish and Wildlife Service provided an extremely informative discussion of Ecological Risk, including the eight step process used to determine the actual ecological risk posed by a site.

A copy of Mr. Pinkney's presentation is included as Attachment D.

7. Comments, Questions, and Answers

Numerous comments were made and questions asked during the meeting. These comments, questions, and answers are provided in Attachment E.

8. Conclusion

Ms. Susan Adams concluded the meeting by thanking all in attendance and presented the tentative agenda for the next RAB meeting on June 17, 1999, which is included as Attachment F. Ms. Adams also reiterated that the next meeting will once again be held at the Indian Head Senior Center and that a reminder will be sent to RAB members and interested citizens prior to the meeting.

INDIAN HEAD DIVISION,
NAVAL SURFACE WARFARE CENTER
INSTALLATION RESTORATION PROGRAM
RESTORATION ADVISORY BOARD (RAB) MEETING
AGENDA

February 18, 1999

- 7:00 - 7:10 ARRIVAL/WELCOME
- Ms. Susan P. Adams
Indian Head Division, Naval Surface Warfare Center
Head, Safety Department
- 7:10 - 7:30 IR SITE 57 REMOVAL ACTION/REMEDIAL INVESTIGATION
STATUS
- Mr. Shawn Jorgensen
Indian Head Division, Naval Surface Warfare Center
IR Project Manager
- 7:30 - 7:45 IR SITES 12, 39/41, 42, AND 44 REMEDIAL
INVESTIGATION AND FEASIBILITY STUDY STATUS
- Mr. Robert Sadorra
Engineering Field Activity Chesapeake
Remedial Project Manager
- 7:45 - 7:55 IR SITES 47 AND 53 REMEDIAL INVESTIGATION STATUS
- Mr. Robert Sadorra
- 7:55 - 8:05 STATUS OF MATTAWOMAN CREEK STUDY
- Mr. Robert Sadorra
- 8:05 - 8:40 ECOLOGICAL RISK PRESENTATION
- Mr. Fred Pinkney.
U.S. Fish & Wildlife Service
- 8:40 - 9:00 COMMENTS, QUESTIONS, AND ANSWERS
- 9:00 ADJOURN



Site 57 Removal Action Status Bldg. 292 TCE Contamination

NAVAL SURFACE WARFARE CENTER INDIAN HEAD RESTORATION ADVISORY BOARD

February 18, 1999

*Shawn Jorgensen
Installation Restoration
Project Manager*

1



Site 57 Removal Action Project Background

- TCE discovered in IW-80*
- Bldg. 292 used TCE for degreasing until 1989 and decanted TCE to drums located outside of the building near storm sewer manhole (MH-1)*
- Sampling in MH-1 revealed TCE contamination while upstream manholes had no contamination*
- Soil gas, soil, and groundwater sampling confirmed elevated levels of TCE in soil and groundwater*

2



Site 57 Removal Action Project Status

- *Concern of TCE migration from groundwater infiltration into the storm sewer*
- *Engineering Evaluation/Cost Analysis (EE/CA) was completed June 1998*
- *EE/CA supported Storm Sewer Rehabilitation*
- *Video inspection of the sewer piping performed to evaluate the condition of the pipe and determine the feasibility to reline*

1



Site 57 Removal Action Project Status

- *Initial indications were that, in spite of the poor condition of the sewer, the pipes could be lined and the project would be completed by September 1998. However, lining was considered infeasible after additional review of video inspection.*
- *24" pipe down gradient of MH-1 was relined*
- *12" line from MH-1 to Bldg. 292 was also relined*
- *EE/CA reopened for public comment to include the additional alternative of Hot Spot Removal (based on need to repair 100 ft of pipe upgradient of MH-1)*

2



Site 57 Removal Action Project Status

- *Planned to remobilize for Sewer Replacement and possible Hot Spot Removal by November 16, 1998*
- *Phased the Site 57 Remedial Investigation to proceed with the soil investigation during the Removal Action*
- *After further review of video inspection, contractor decided lining of 100 ft pipe upgradient of MH-1 would be feasible*
- *100 ft pipe upgradient of MH-1 lined October 1998*
- *RA completed October 1998.*

5



Site 57 Remedial Investigation Project Status

- *Field work for Phase I RI (soil data) completed October 9, 1998*
- *Field work for Phase II RI (groundwater, sediment, surface water):*
 - *Began January 5, 1999*
 - *Completed January 27, 1999*

6



Site 57 Remedial Investigation Project Status

- *Draft report scheduled for completion early July but will attempt to accelerate*
- *RI will identify extent of contamination in both soils and groundwater*
- *RI will determine the effectiveness of the Removal Action*
- *Copy of the RI report will be given to each member of the RAB*
- *Copy of the RI report will be available in the Information Repositories*

7

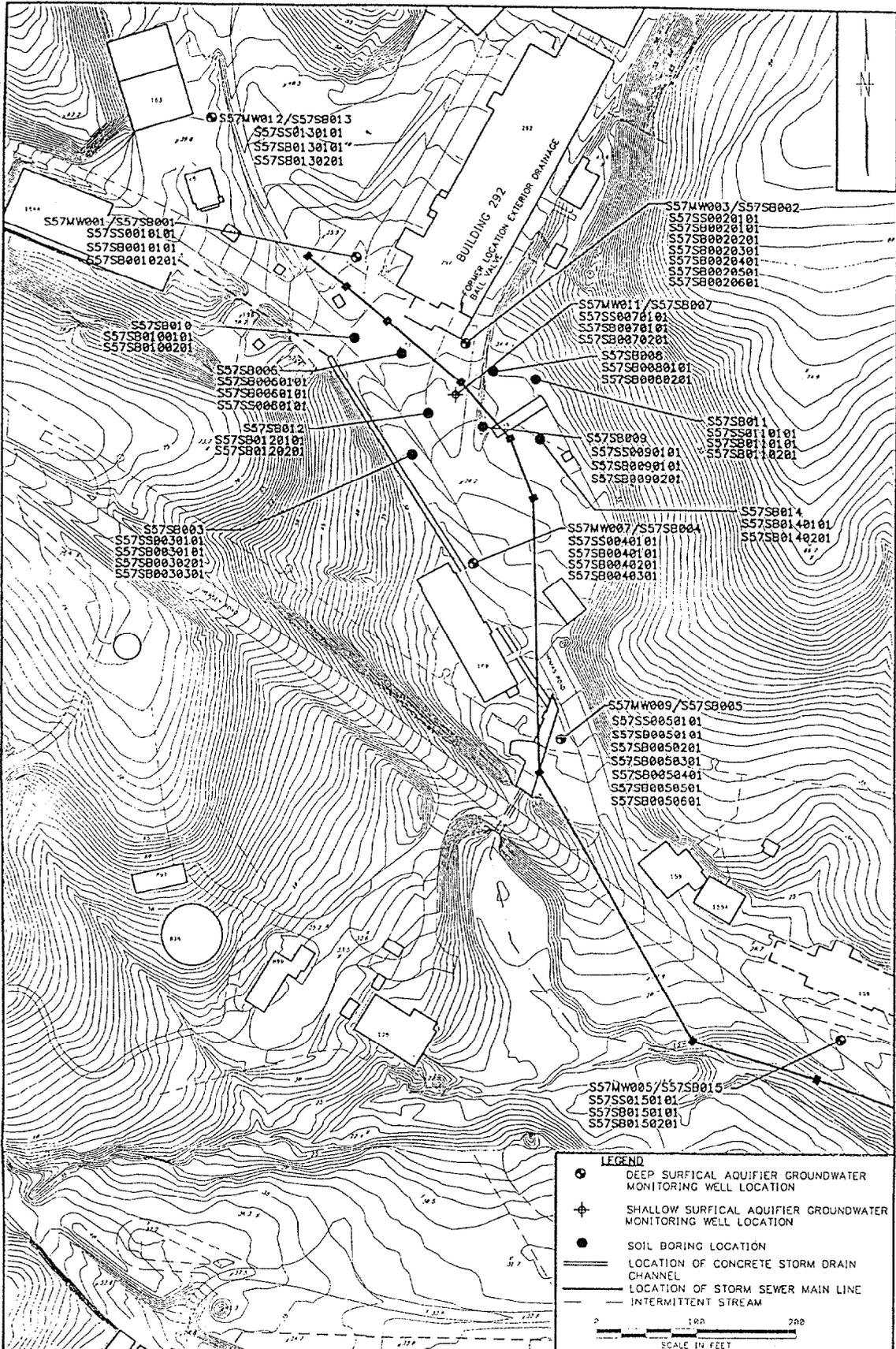


Site 57 Feasibility Study (FS) Schedule and Budget

- *Site 57 - Building 292 TCE Contamination FS*
 - *FS will evaluate alternatives for final remediation of the site*
- *Expected Award: 8/30/99 (swing project)*
- *Budget: \$125,000*

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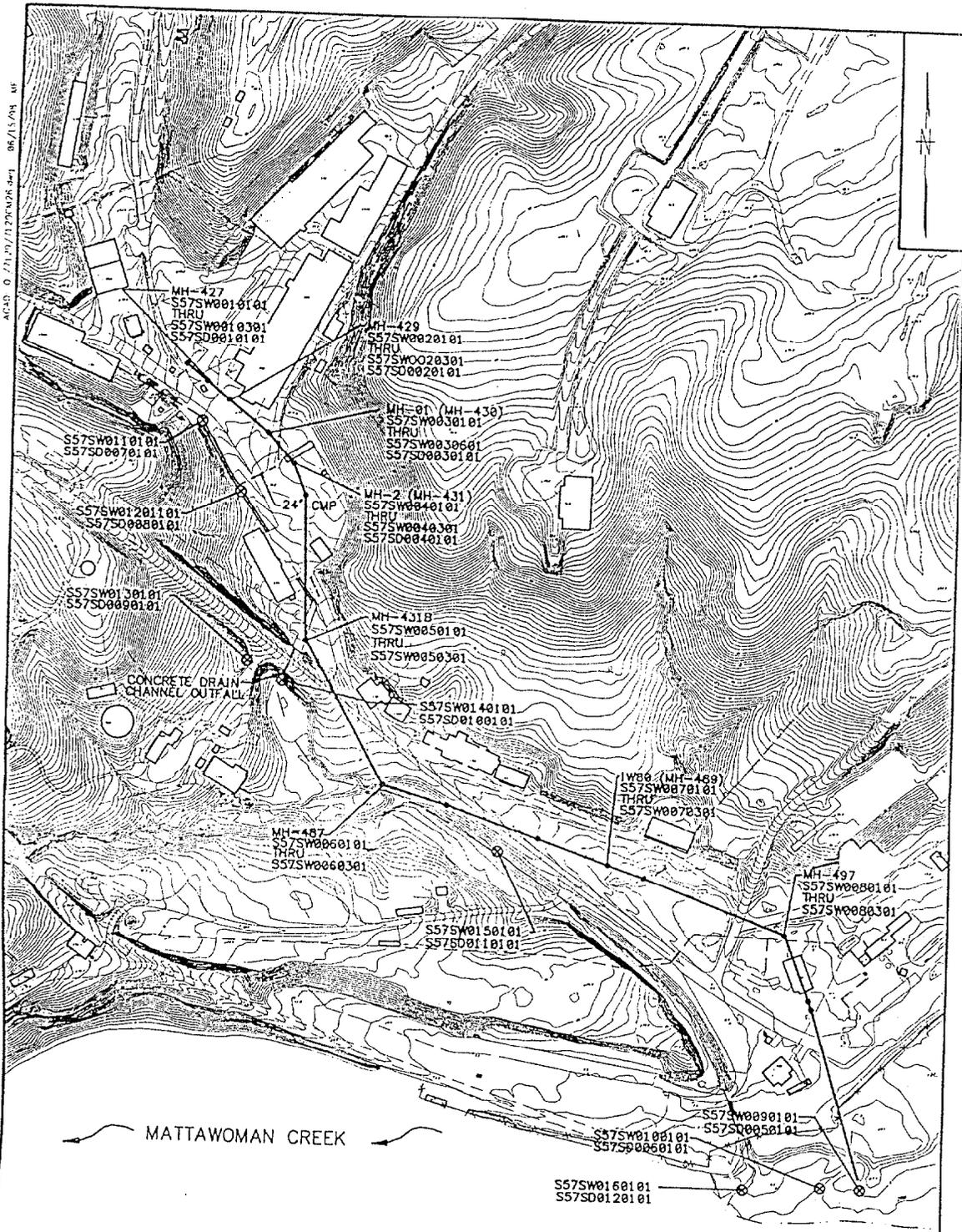
A-150, D-1, 450, 71128, 1120, 425, 440, 7/8/98, MF



DRAWN BY HJP CHECKED BY COST/SCHED-AREA SCALE AS NOTED	DATE 2/11/98 DATE AREA	Brown & Root Environmental PROPOSED SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION MAP SITE 57-FORMER DRUM LOADING AREA INDIAN HEAD DIVISION NSWC INDIAN HEAD, MARYLAND	CONTRACT NO. 7129 OWNER NO. APPROVED BY DATE 7/6/98 APPROVED BY DATE DRAWING NO. FIGURE 4-1 REV. 0
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DRAFT FINAL

IN R/S/1/98 LMS VANDERLUTZ O-3000



MATTAWOMAN CREEK

LEGEND

- ⊗ SEDIMENT AND/OR STORM WATER SAMPLE LOCATION
- ==== LOCATION OF CONCRETE DRAIN CHANNEL
- — — — — LOCATION OF STORM SEWER MAIN LINE
- — — — — — MANHOLE LOCATION STORM SEWER SYSTEM
- - - - - INTERMITTENT STREAM
- X - X - X - CHAIN LINK FENCE

0 200 400
SCALE IN FEET

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COST/SCHED-AREA	
SCALE	
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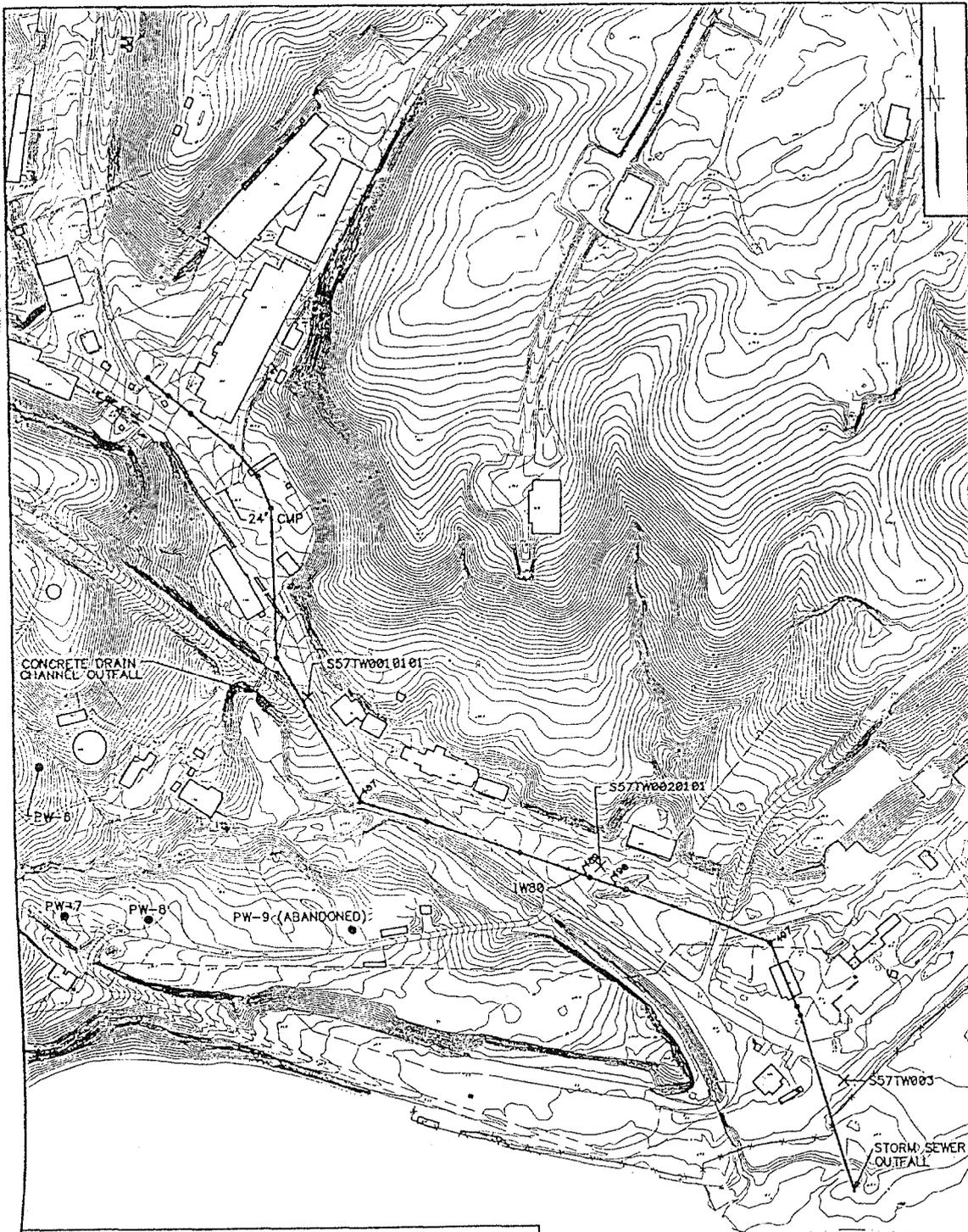
Brown & Root Environmental

PROPOSED STORM WATER AND
SEDIMENT SAMPLING FROM STORM WATER
SEWER SYSTEM AND CONCRETE DRAIN
CHANNEL LOCATION MAP
SITE 57-FORMER DRUM LOADING AREA
INDIAN HEAD DIVISION NSWC
INDIAN HEAD, MARYLAND

CONTRACT NO.	OWNER NO.
7129	0745
APPROVED BY	DATE
<i>[Signature]</i>	1/10/98
APPROVED BY	DATE
DRAWING NO.	REV.
FIGURE 4-3	0

DRAFT FINAL

IN 147-11-98 map 270008(1/02/11/03-2) 0 GCS



LEGEND

- X TEMPORARY WELL LOCATIONS
- POTABLE WATER WELL
- ==== LOCATION OF CONCRETE STORM DRAIN CHANNEL
- LOCATION OF STORM SEWER MAIN LINE
- INTERMITTENT STREAM
- x-x-x- CHAIN LINK FENCE W/BARBED WIRE

SCALE IN FEET
0 200 400

MATTAWOMAN CREEK

NOTE: LOCATION OF TEMPORARY WELLS AND MONITORING WELLS TW005, TW006, TW011, TW012, MW015, AND MW016 TO BE DETERMINED IN FIELD. LOCATION SHOWN FOR REFERENCE ONLY.

DRAWN BY HJP CHECKED BY COST/SCHED-AREA SCALE AS NOTED	DATE 2/12/98 DATE DATE DATE	Brown & Root Environmental PROPOSED TEMPORARY WELL LOCATIONS FOR STORM SEWER PIPE TRENCH INVESTIGATION SITE 57-FORMER DRUM LOADING AREA INDIAN HEAD DIVISION NSWC NSWC INDIAN HEAD, MARYLAND	CONTRACT NO. 7129 OWNER NO. 0215 APPROVED BY APPROVED BY DATE 7/8/98 DATE	DRAWING NO. FIGURE 4-4 REV. 0
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4-21

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**NAVAL SURFACE WARFARE CENTER
INDIAN HEAD
RESTORATION ADVISORY BOARD**

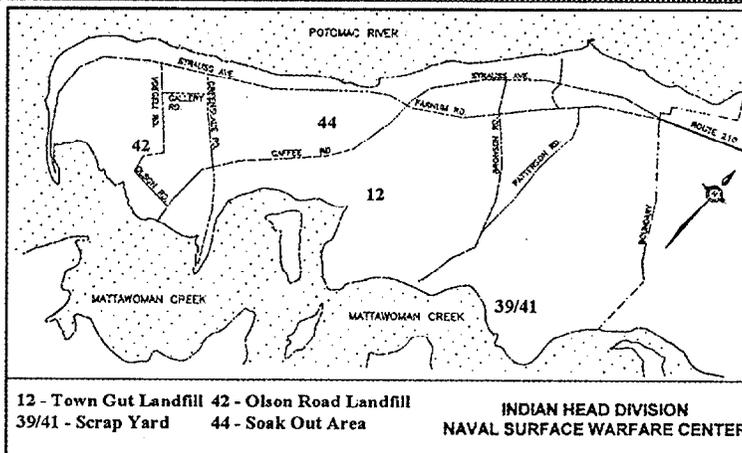
**Remedial Investigation / Feasibility Study
Project Status**

- Site 12 - Town Gut Landfill
- Site 41 - Scrap Yard
- Site 42 - Olson Road Landfill
- Site 44 - Soak Out Area

Robert Sadorra, RPM
Engineering Field Activity Chesapeake
February 18, 1999



**Remedial Investigation / Feasibility Study
Project Status
Sites 12, 41, 42, 44**





**Remedial Investigation / Feasibility Study
Project Status
Sites 12, 41, 42, 44**

Background

- *Field Work Conducted August 1997 - November 1997*
- *Draft Report Completed May 1998*
- *Comments Received from :*
 - *US Fish & Wildlife (August 18, 1998)*
 - *US EPA Biological Technical Assistance Group (September 24, 1998)*
 - *Navy Environmental Health Center (August 11, 1998)*
 - *Workgroup meeting with EPA and BTAG (December 14, 1998)*



**Remedial Investigation / Feasibility Study
Project Status
Sites 12, 41, 42, 44**

Current Site Assessments

Town Gut Landfill (Site 12)

- *Potential Ecological Risk*
- *Compliance with ARARs*

Olson Road Landfill (Site 42)

- *Potential Ecological Risks*
- *Compliance with ARARs*

Scrap Yard (Site 41)

- *Potential Human Health Risks*
- *Potential Ecological Risks*

Soak Out Area (Site 44)

- *No Further Action*
- *Pending Perchlorate Sampling*



**Remedial Investigation / Feasibility Study
Project Status
Sites 12, 41, 42, 44**

Remedial Investigation Draft Final Report

- *Near Completion*
- *Some changes required as a result of comments and workgroup meetings with EPA and BTAG*
- *Draft Final Report due March 5, 1999*
 - *RAB members will receive a personal copy*
 - *Copies will also be available at the Information Repositories*



**Remedial Investigation / Feasibility Study
Project Status
Sites 12, 41, 42, 44**

Next Step: Feasibility Studies

- Purpose**
- *Describe, evaluate and compare alternatives*
 - *Select Remedy*
- Tasks**
- *Alternative development*
 - *Alternative evaluation and comparison*
 - *Overall protection of human health and the environment*
 - *Compliance with ARARs*
 - *Long-term effectiveness and permanence*
 - *Reduction of toxicity, mobility or volume through treatment*
 - *Short-term effectiveness*
 - *Implementability*
 - *Cost*
 - *State Acceptance*
 - *Community Acceptance*



***Remedial Investigation / Feasibility Study
Project Status
Sites 12, 41, 42, 44***

Feasibility Studies

- *Expected to award next week*
- *Abbreviated FS fieldwork plan expected March 31, 1999*
 - *May include some test pits to better define extents of our landfills*
 - *Use of PCB field test kits to better define the extent of PCB contamination at the Scrap Yard*
- *FS fieldwork mobilization on May 15, 1999*
- *Draft FS report by September 30, 1999*

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***NAVAL SURFACE WARFARE CENTER
INDIAN HEAD
RESTORATION ADVISORY BOARD***

***Remedial Investigation
Project Status***

*Site 47 - Mercuric Nitrate Disposal Area
Site 53 - Mercury Contamination in the Sewer System*

*Robert Sadorra, RPM
Engineering Field Activity Chesapeake
February 18, 1999*

8



Remedial Investigation Project Status Sites 47 and 53

- **Site 47 - Mercuric Nitrate Disposal Area**
 - Mercuric Nitrate was disposed in area approximately 24 sq. ft.
 - Limestone chips used to neutralize spent nitric acid
 - Procedure carried out between 1957 and 1965
 - RI will include additional soil, sediment and groundwater sampling
- **Site 53 - Mercury in the Sewage System**
 - 1909 - 1986, mercury loss was reported in the sewage system in the general laboratory area in the northeastern part of the Activity
 - RI will be phased to include research of the layout, video taping of the sewers, sampling plan development, field work and reporting.



Remedial Investigation Project Status Sites 47 and 53

- **Site 47 - Mercuric Nitrate Disposal Area**
 - Project awarded in November 98
 - Mobilization for field work is pending site approval (approx. 3 months)
 - Draft report expected in October 99
- **Site 53 - Mercury in the Sewage System**
 - Project awarded in November 98
 - Currently researching historical records on the sewer system
 - Field implementation plan expected early April 99
 - Mobilization for fieldwork in May 99
 - Draft report expected in October 99



NAVAL SURFACE WARFARE CENTER
INDIAN HEAD
RESTORATION ADVISORY BOARD

Mattawoman Creek Ecological Assessment
Project Status

Robert Sadorra, RPM
Engineering Field Activity Chesapeake
February 18, 1999



Mattawoman Creek Ecological Assessment
Project Status

- *Expected Phase I award next week*
- *Phase I*
 - *Initiating plans to meet with EPA and BTAG*
 - *Fieldwork mobilization in June 1999*
 - *Draft Screening-Level ERA Report due September 20, 1999*
 - *Final Screening-Level ERA Report due November 2, 1999*
- *Phase II*
 - *Draft Proposed ERA Report Approach report due January 3, 2000*
 - *Final Proposed ERA Report Approach report due February 22, 2000*

FEB-10-1999 15:41 FROM U.S FISH&WILDLIFE SVC TO 13017444180 P.02

ECOLOGICAL RISK ASSESSMENT

An Overview

Prepared by

Fred Pinkney

U.S. Fish and Wildlife Service

Chesapeake Bay Field Office

Annapolis, Maryland

February 1999

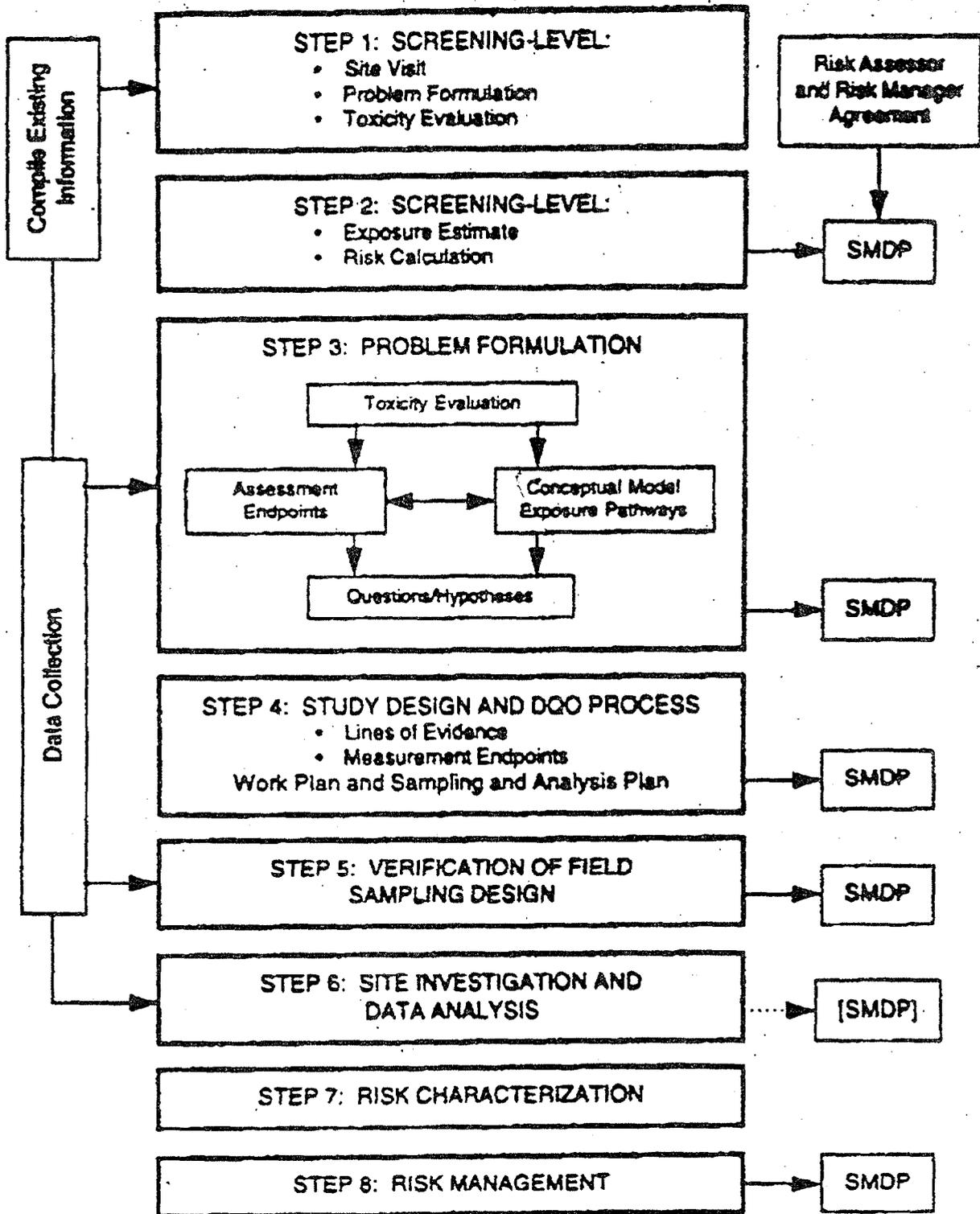
Definitions

- **ERA: Process** that evaluates the **likelihood** that adverse *effects* on plants, animals, and ecosystems may occur due to *exposure* to one or more stressor.
 - Contaminant -- a substance that can cause adverse effects due to its concentration, distribution, and mode of toxicity
 - Examples -- chlorine, copper, trichloroethylene

GUIDANCE

- Process for Designing and Conducting Ecological Risk Assessment
 - EPA, Environmental Response Team, 1997
- Tri-Service Procedural Guidelines for Ecological Risk Assessment
 - Dept. of Defense, 1996
- EPA 1998: Ecological Risk Assessment Guidance

EXHIBIT I-2 Eight-step Ecological Risk Assessment Process for Superfund



Step 1: Screening Level-- Problem & Effects

- Existing data may be limited
- What types of habitats are there?
- What are the contaminants and where are they?
- How do they move?
- What types of plants and animals are affected and how are they affected?

Step 2: Screening Level-- Exposure & Risk

- Estimate exposure based on the highest concentrations
 - Assume the worst
- Calculate hazard quotient (HQ)
 - $HQ = \text{maximum concentration} / \text{NOAEL}$
 - NOAEL=no observed adverse effect level

OUTCOME OF STEP 2

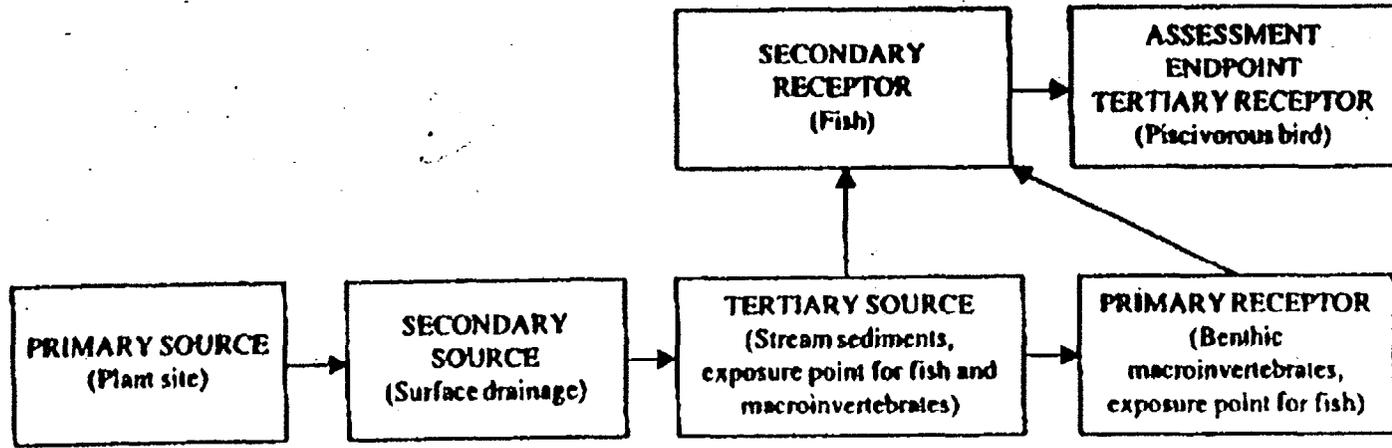
- There is a potential risk: HQs are greater than or equal to one -- need further work/analysis: go to step 3
- There is inadequate information to make a decision: go to step 3
- There are negligible ecological risks ---- HQs are less than one: we are done!

STEP 3: Problem formulation

- Chemicals of concern (COCs)
- Ecological effects of COCs
- Pathways
- Assessment endpoints -- what are you trying to protect (e.g., bird reproduction)
- What are the questions you are investigating

3-13

EXAMPLE 3-5 Conceptual Model Diagram-ODT Site



Step 4: Study Design

- Measurement endpoints: measurable characteristic related to assessment endpoint
 - e.g., amount of DDT accumulated in food chain vs. amount known to affect reproduction
- Develop work plan and sampling and analysis plan
- State all assumptions and types of statistics to be used

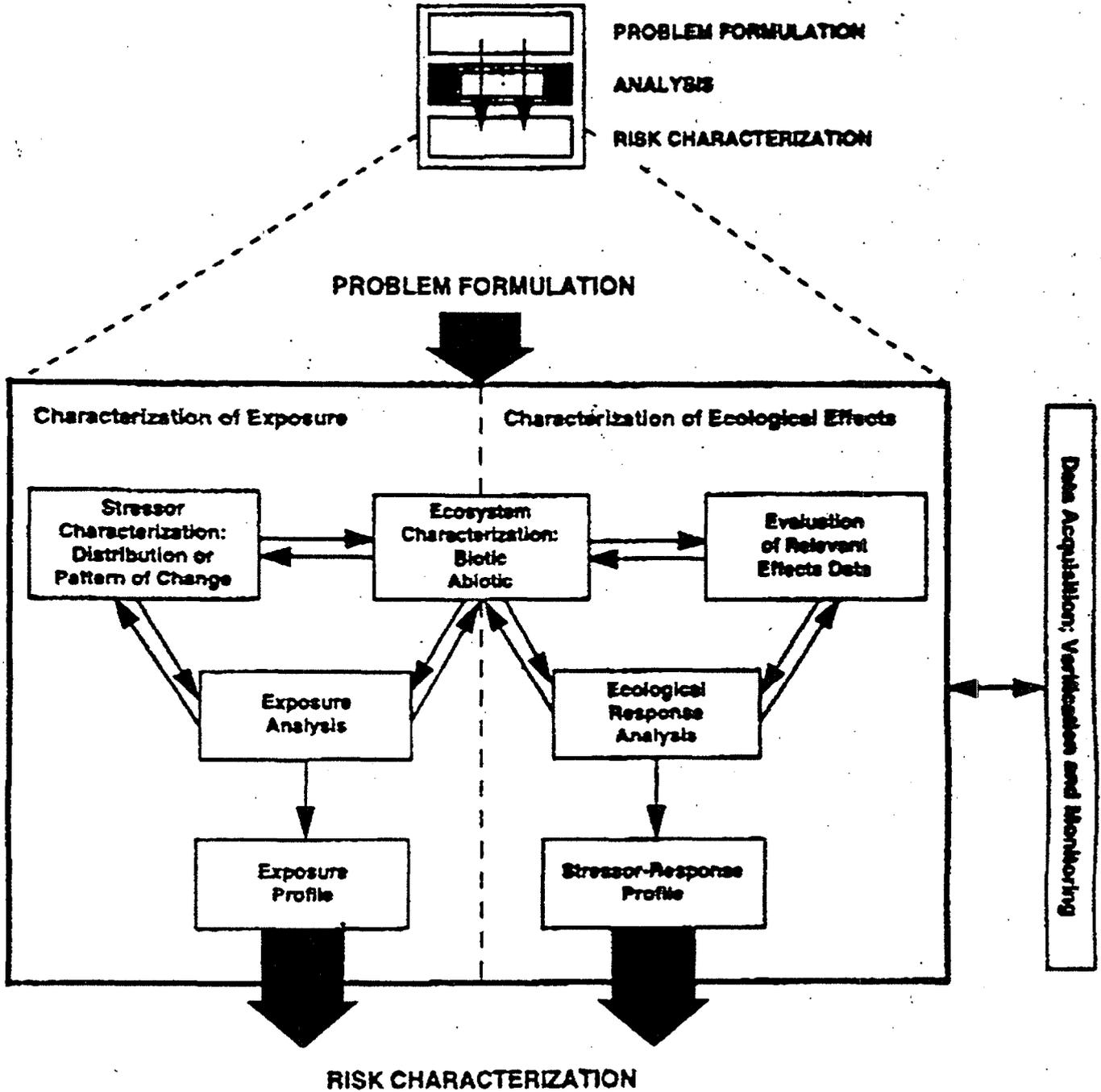
Step 5: Verify Sampling Design

- Scope it out:
 - Check that animals that you want for tissue analysis are there and can be collected
 - Sediments -- can you collect sediments or does the bottom consist of boulders
 - Reference site -- can you obtain what you want there; are there unforeseen complications?

Step 6: Site Investigation and Analysis

- Collect field data and perform laboratory analyses
 - Tissue residues for food chains
 - Toxicity tests
 - Pathology
- Characterize exposure and effects and exposure-response

EXHIBIT 6-1 Analysis Phase (U.S. EPA, 1992a)



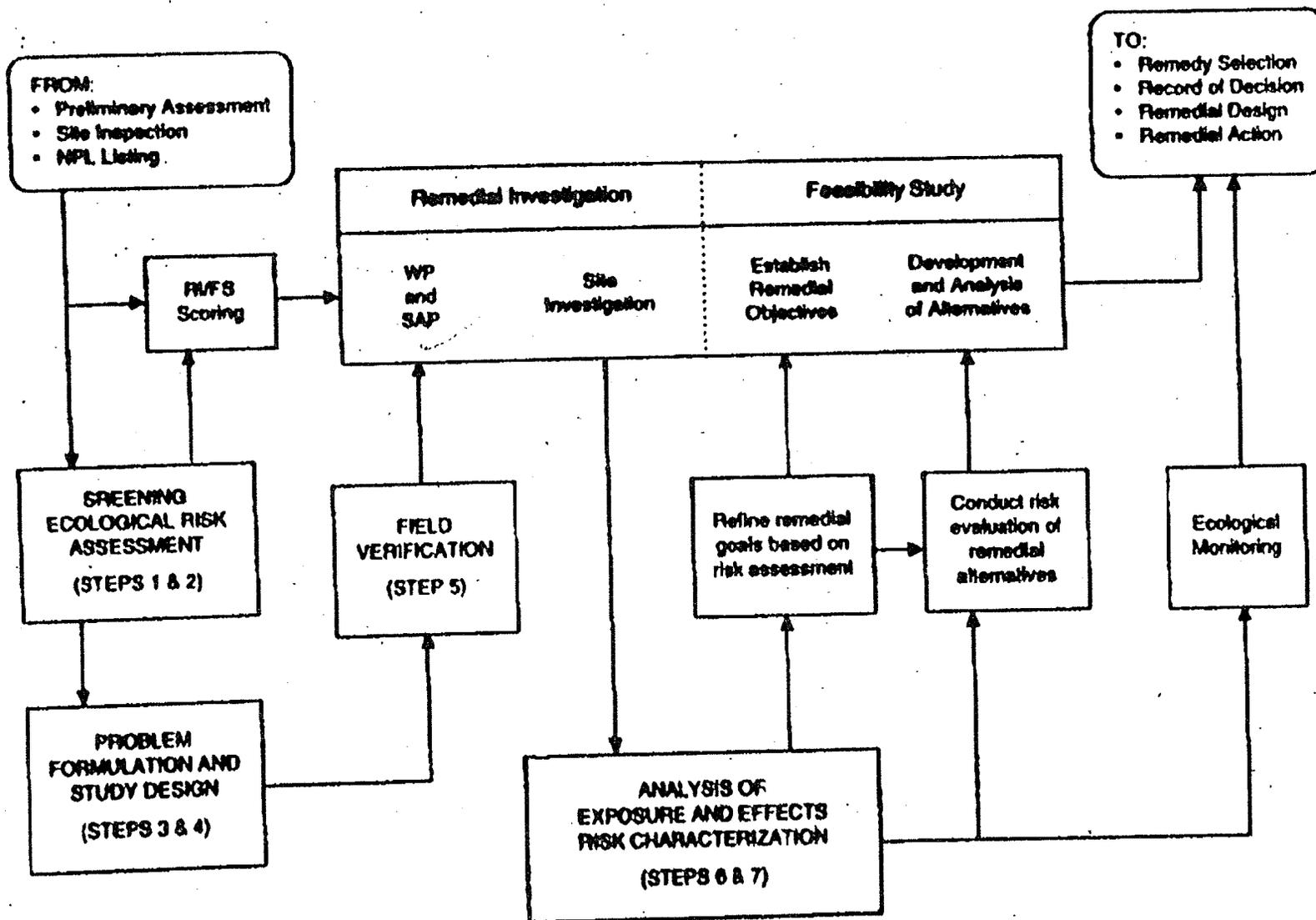
Step 7: Characterize risks

- Describe hazard quotients and test results
- Put together information on exposure and exposure-reponse
- Put together different lines of evidence
- Describe uncertainties
- Summarize risks

Step 8: Risk Management

- Evaluate cleanup options including risks caused by the remedies
- Done by site manager with regulator input
- Balance ecological costs and benefits
- Identify monitoring requirements

**EXHIBIT I-5
Ecological Risk Assessment in the RI/FS Process**



1-13

INSTALLATION RESTORATION PROGRAM



INDIAN HEAD DIVISION,
NAVAL SURFACE WARFARE CENTER
101 STRAUSS AVENUE
INDIAN HEAD, MARYLAND
20640-5035



RESTORATION ADVISORY BOARD (RAB) MEETING COMMENTS, QUESTIONS AND ANSWERS

February 18, 1999

IR Site 57 Removal Action/Remedial Investigation

Question: How much money has been spent so far on this site?

Answer: The Removal Action (RA) cost approximately \$200,000. The Remedial Investigation (RI) cost \$400,000. An additional \$1 million could realistically be spent on the final action, depending upon what that final action is. If such a large amount of additional money were required at this site, then the schedule for other projects (not necessarily only Indian Head projects) would slip.

Question: Who initially thought the pipe could not be relined? Was it the same contractor who thought otherwise?

Answer: OHM, the Removal Action Contractor, and Insituform, the subcontractor performing the relining, initially believed that the pipe could be relined. However, upon further inspection of the video of the pipe, Insituform did not think that relining was possible because of the lack of integrity in a portion of the pipe. Finally, after further review of the video, Insituform decided that relining was possible if they were to strategically insert a section of liner with a diameter of 27 inches (instead of 24 inches like the rest of the pipe) in a 10 foot section of the pipe. Fortunately, this did work and the pipe was relined.

Question: What makes this site a high priority?

Answer: This site is high priority because we have a source (high concentration of trichloroethylene (TCE) in soil and groundwater), a pathway (the storm sewer), and a receptor (the Mattawoman Creek).

Question: How long will the liner last?

Answer: Insituform has been in business for approximately 20 years. The first pipe that they relined is located in England. This pipe was recently inspected and still looks as good as new. Therefore, the liner should last at least 20 years.

Comment: Since the removal action was performed, the amount of TCE in Industrial Wastewater Outfall 80 (IW80), has been reduced from 62 parts per billion (ppb) to 20 ppb. This is based on only one sample. Additional samples will be taken as part of the RI.

IR Sites 12, 39/41, 42, and 44 Remedial Investigation (RI) Report Status

Question: What does it mean to "comply with Applicable or Relevant and Appropriate Requirements (ARARs)?"

Answer: Other laws, such as the Resource Conservation and Recovery Act (RCRA) or the Clean Water Act (CWA) can apply to various work that is being performed. For instance, laws that regulate landfill construction, including the use of liners and the installation of monitoring wells, are directly applicable to new landfills. However, since these laws were not in existence during the construction of older landfills, they do not directly apply to older landfills. In the same way, laws that regulate the proper closure of landfills do not directly apply to older landfills that were in existence prior to the laws. However, to ensure that these landfills are not abandoned, allowing the possible spread of contamination, the laws that govern the closure of landfills become "relevant and appropriate" for older landfills. Ultimately, complying with ARARs means ensuring the health and safety of the public and the environment.

Question: What exactly is a "potential ecological risk?"

Answer: Samples are analyzed for various chemicals. If the concentration of any of the chemicals exceed the screening level, then a potential ecological risk exists. The screening levels are sometimes the lowest concentration of a chemical that will cause an adverse effect, no matter how minor, on a species. Often times, the species that would be affected is not even present in area of the site. Also, screening levels can be the lowest detectable level of a chemical, based on laboratory sampling techniques. Therefore, site-specific ecological risk assessments are

necessary to determine the actual ecological risk of a given site.

Question: What is being done at the Scrap Yard to protect the health of workers?

Answer: The potential human health risk at the Scrap Yard is based on polychlorinated biphenyls (PCBs) and would affect full-time maintenance workers. However, we know that the site is fenced and workers are only at the site a couple of hours per week.

Comment: There are two different types of exposures to consider when evaluating human health risk: acute and chronic. Some chemicals can be harmful during an acute exposure. For example, a strong acid can damage your skin during an acute, or brief, exposure. However, some chemicals, such as PCBs require chronic, or long-term, exposure over a period of years to have an effect on human health. In the case of the Scrap Yard, workers are on-site for only a few hours per week and, therefore, any exposure to PCBs is very brief, if at all.

Question: What is the review time on the draft final report?

Answer: A period of three weeks is scheduled for review of the draft final RI report. A copy of the report will be placed in the repositories.

Question: What is happening with the repositories on CD-ROM and will the repositories have the equipment to run it?

Answer: There are still some bugs in the draft, but it looks pretty good. A questionnaire was sent to the repositories to determine their capabilities. Therefore, they should have the proper equipment to view the CD-ROM at the repositories.

Comment: We can arrange to provide RAB members with their own copy of the repository on CD-ROM once it becomes finalized.

Question: If a landfill is in the water table, do you still put a cap on it?

Answer: This is the type of thing that we look at during the Feasibility Study (FS) phase. Other options, such as clean closure, i.e., removal of the fill, will also be addressed in the FS phase of the program.

Question: Is an auger used to make a test pit at a landfill?

Answer: No. A backhoe is used to create a trench. Test pits will be used to find the outer perimeter of the landfills.

Question: How do you know that you won't be cutting open drums and causing more contamination while digging test pits?

Answer: We start at the edge of the landfill, to try to find its outer perimeter. However, a response capability will be in place to address this type of incident to ensure that contamination does not spread.

Comment: The landfills that we are talking about are only one or two acres in size.

Question: Is doing FS work at these sites contingent upon getting the money to do the work at all four sites at the same time?

Answer: Not necessarily. We would like to do all four sites at the same time because mobilization costs are reduced if we only have to mobilize once, instead of two or more times.

IR Sites 47 and 53 Remedial Investigation (RI) Status

Comment: The National Archives may have the equipment required to view the old sewer line videos for IR Site 53.

Question: Is site approval holding up the work to be conducted at IR Site 47?

Answer: No, not really.

Mattawoman Creek Study

Question: Who will be reviewing the work plan for the Mattawoman Creek ecological risk assessment?

Answer: The Navy and other environmental groups, such as the EPA Biological Technical Assistance Group (BTAG).

Question: Will the RAB get the opportunity to review this work plan?

Answer: Most definitely. A copy of the plan will be sent to RAB members for review.

Comment: Please ensure that the RAB has adequate time to review the plan.

Ecological Risk Presentation

Question: With so many different guidance documents on ecological risk assessment, how do you determine which one to use.

Answer: All of the guidance documents are very similar. However, each EPA Regional Office makes the determination of which one to use for their area. EPA Region III uses the EPA guidance to determine ecological risk.

Question: Why are the screening level lists not included in the guidance?

Answer: There are many different lists and they all change regularly. The guidance just states to use a list. It does not specify which list to use.

Question: If you do not have a screening level for a chemical, what do you do?

Answer: The chemical is retained, per the guidance, since there is not enough information to dismiss it, i.e., the chemical presents a potential risk.

Question: In Step number 2, how often are all the hazard quotients (HQs) less than one at a site during the initial screening.

Answer: If all of the HQs at a site are less than one, then no further action is required at the site, in terms of ecological risk assessment, since a risk does not exist. However, Mr. Fred Pinkney of the U.S. Fish & Wildlife Service stated that he has never seen this happen.

Question: Do you look at ecological risk by species?

Answer: No, by group. For example, benthic invertebrate are looked at for quantity and diversity, while predatory fish, fish eating birds, and fish eating mammals are looked at for their ability to grow, survive, and reproduce. No single species is used to determine the ecological risk of a site.

Question: How do you decide how to do this?

Answer: This is done using a team approach following the guidance document. First, the Navy contractor comes up with a plan using the information obtained from the initial screening, and develops a list of what needs to be protected. Then, the Navy, the BTAG (EPA, U.S. Fish and Wildlife Service, and the National Oceanographic and Atmospheric Administration), and the Navy's contractor meet to discuss the plan and develop a list of five to seven items to measure for the risk assessment.

Comment: The Navy contractor, TetraTech NUS, has a lot of experience with this type of work.

Question: What is the U.S. Fish & Wildlife Service involvement in this process?

Answer: The EPA does not have many ecologists. Therefore, they set up the BTAG to review information on sites containing ecological issues. The U.S. Fish & Wildlife Service (USF&WS) is a member of the BTAG. As such, the USF&WS reviews ecological issues at sites and advises the EPA on these issues. In addition, the USF&WS works with the Navy in an advisory role or on contract with respect to ecological issues.

Question: What is the State of Maryland's involvement in this?

Answer: The EPA has the lead advisory role. The Maryland Department of the Environment (MDE) remains involved by reviewing documents and providing comments to the Navy.

Comment: With respect to the Mattawoman Creek ecological study, there is no single focal point for all of the studies that are being conducted. The County Commissioners are trying to decide whether to set up an advisory group. Also, there is currently no organization that is overseeing all of the studies.

Question: How does this study differ from the five-year study that was performed by the USF&WS?

Answer: The five-year study used edible portions of fish, which is outside the scope of an ecological study.

Question: Can the results be used for human health risk?

Answer: Not directly. We would need to check how the results relate to human health.

Comment: MDE personnel have reviewed these results. Although the levels of mercury were elevated, they were not that significant. In fact, a program is in place in Maryland to sample fish tissue every two to five years throughout the State.

Comment: Perhaps a State expert could join us at our next RAB meeting to discuss this information.

Comment: In addition, fish move. Therefore, how can one determine if contamination within a fish came from one particular activity or another?

Question: How important are seasonal changes and migratory issues?

Comment: This will depend on what you are sampling. Some groups tend to decrease during certain seasons, for example, benthic invertebrate are not typically sampled during the winter or the hot summer when their numbers are lower. On the other hand, fish can be sampled year round for non-migratory groups. In a nutshell, we try to look at non-migratory animals during these studies.

INDIAN HEAD DIVISION,
NAVAL SURFACE WARFARE CENTER

INSTALLATION RESTORATION PROGRAM
RESTORATION ADVISORY BOARD (RAB)
MEETING AGENDA
(Tentative)

June 17, 1999

1. IR Site 57 Remedial Investigation (RI)
Report Update
2. Feasibility Study (FS) Update for IR Sites
12, 41, and 42
3. IR Sites 47 and 53 RI Status