



UNITED STATES ENVIRONMENTAL PROTECTION

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

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NAS PENSACOLA  
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JUN 10 1992  
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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Suzanne Sanborn  
Remedial Activities Branch  
Department of the Navy - Southern Division  
Naval Facilities Engineering Command  
2155 Eagle Drive  
P.O. Box 10068  
Charleston, S.C. 29411-0068

RE: Recommendations for scoping RI/FS Work Plans for OUs 15-17 generated during the March 4-6, 1992 Site Tour  
NAS Pensacola, Florida

Dear Ms. Sanborn:

As you are aware, on March 4-6, 1992, several EPA technical staff members and Natural Resource Trustees along with the RPM met with Ron Joyner and the Navy's contractors to tour the various sites at NAS Pensacola. The purpose of the tour was to gather information which would prove helpful to the Navy in preparing the RI/FS Work Plans for Operable Units 15 (Bayou Grande Area), 16 (NASP Wetlands) and 17 (Pensacola Bay Area). Following the tour, I requested all attendees to provide me with a written summary of their observations and recommendations. The attached memo, from myself to Michael Hartnett, DOD Remedial Section Chief, presents a compilation of the group's findings and recommendations.

EPA has received, and is currently reviewing the Navy's summary report on this same subject entitled: "Data Summary and Preliminary scoping for Ecological Risk Assessment Work Plans". Following transmittal of our comments to you on this document, we will contact you to schedule an additional scoping meeting during which the parties can discuss, and reach a final agreement, on the nature and scope of these work plane.

Please contact me at 404/347-3016 should you have any further questions or concerns regarding these matters.

Sincerely yours,

Allison W. Drew, RPM  
DOD Remedial Section  
Federal Facilities Branch

cc: Ron Joyner, NAS  
Eric Nuzie, FDER



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

**MEMORANDUM**

**DATE:** JUN 08 1992

**SUBJECT:** NAS Pensacola site Tour to assist the Navy in scoping RI/FS Work Plans for OUs 15 - 17 (Bayou Grande, NASP Wetlands, Pensacola Bay) EPA Site ID. No.: FL517002247

**TO:** Michael Hartnett, Chief  
Department of Defense Remedial Section

**FROM:** Allison Drew, RPM *AWD 6/8/92*  
Department of Defense Remedial Section

On March 5-6, 1992, the RPM, several EPA technical staff members and Natural Resource Trustees met with Ron Joyner and the Navy's contractors to tour the various sites at NAS Pensacola (see attached attendance list). The information gathered will be used to assist the Navy in scoping the RI/FS Work Plans for Operable Units 15 (Bayou Grande), 16 (NASP Wetlands) and 17 (Pensacola Bay). These Operable Units were designated in order to provide a means for identifying and remediating the synergistic, off-site detrimental impacts which individual PSCs have had on sensitive ecosystems at NAS Pensacola. The RI/FS process for individual PSCs must still address ecological impacts which occur within the boundaries of the PSC. However providing a separate mechanism for addressing off-site effects should allow the Navy to proceed with the RI/FS for both types of Operable Units more efficiently and effectively. Two additional activities are planned to supplement the current effort: (i) the Navy is preparing a *summary* of existing data and information as it relates to OUs 15-17, which we anticipate will be available in early June, and (ii) a follow-up scoping meeting to further scope these work plans, to be scheduled following receipt and review of item (i) by all parties.

The various sites were toured in order of preference by the group members. All sites which group members believed to be of the most significant ecological concern were viewed. Due to time constraints, several sites, including PSCs 9, 10, 23, 29, 34, 19, 37, 7, 21, 31, 8, 18, 28 and 4, were not viewed during the tour. In general, group members anticipated that these sites are likely to be of lesser ecological concern. The group also concurred that the following sites are likely to present the most significant threat to the ecology and environment:

Site 1: Sanitary Landfill  
Site 2: Waterfront Sediments Area  
Site 11: North Chevalier Disposal Area  
Site 30: Buildings 649 & 755

Several significant data gaps of a more general nature were identified. These data needs, and EPA's recommendations as to how to fill them, have been divided into three categories as outlined below.

I. INFORMATION WHICH SHOULD BE COLLECTED PRIOR TO WORK PLAN DEVELOPMENT:

1. Identify, to the greatest extent possible, the PSC-specific contaminants of concern (COCs) which have the potential to impact these larger ecosystems
2. Determine what is/is not known about groundwater flow pathways at NAS Pensacola and evaluate the quality of the existing information
3. Accurately identify the natural resources/habitats which will be investigated in these RI/FSs
4. Define the hydrodynamics of Pensacola Bay and Bayou Grande in order to assure that the proposed sampling plans will be adequate and appropriate for their intended purpose

SPECIFIC RECOMMENDATIONS ON HOW TO FILL THESE INFORMATION/DATA GAPS:

1. Under the current RI/FS investigative schedules, data of adequate quality on the COCs for individual PSCs will not be available for even the first group of sites until Spring/Summer of 1993. The RI/FS start date for OUs 15-17 will thus be significantly delayed if work plan development is postponed until receipt of this data. The RI/FS for OUs 15-17 should be initiated as soon as possible, given the potential length of these investigations (e.g. seasonal sampling requirements). In an effort to eliminate such delay, EPA Region IV's Environmental Services Division (ESD) will perform limited oversight sampling aimed at identifying the COCs which may be affecting the Bay, Bayou and Wetlands. Sampling efforts will focus on the high priority sites identified at the beginning of this memo. Although the results will not provide a comprehensive list of PSC-specific COCs, it is hoped that the data will be sufficient to permit initiation of the RI/FS for OUs 15-17.

ESD personnel scoped some preliminary sample locations during the site tour. These locations will be refined in a follow-up scoping tour during the week of June 15, 1992. The actual field work will probably be performed in July. Many site tour attendees provided specific recommendations for sampling locations, and these will be incorporated into the oversight field work to be done by ESD as appropriate and as resources permit. In addition to providing the Navy with a greater knowledge of the contaminants of concern, the data obtained through this field effort may also provide the following other types of information:

1. identification of suitable habitat sampling techniques which could be applied in future sample collection efforts
2. determination of which contaminants need to be monitored
3. identification of appropriate future sampling locations (if any)
4. determination of the scope, and types, of biological testing which may be appropriate
5. determination of what types of long-term ecological monitoring may be appropriate

2. Well Status/Condition: many of the wells observed during the tour were in extremely poor condition. In order to assure that the groundwater data collected is accurate and of adequate quality, the Navy should conduct a comprehensive well inspection/inventory and compile the results into a single reference document, along with all available well logs. Wells which are currently in good, serviceable condition should be identified. Wells which *are* not should be placed into one of the following categories:

- a. serves a useful monitoring purpose, but needs to be reconditioned
- b. serves a useful monitoring purpose, but cannot be salvaged (i.e. abandon & replace)
- c. no longer serves a useful monitoring purpose, and should be properly abandoned

The results of the inventory will allow the Navy to determine whether the current number and locations of acceptable groundwater monitoring points is adequate for the purposes of evaluating groundwater pathways and surface water discharge points.

3. The natural resources at NAS Pensacola must be accurately identified in order to assure that the proposed investigations will be adequate and appropriate. For example, the "Golf Course Pond" at Site 1: Sanitary Landfill and the "depression" feature just north of Site 14: dredge spoil area are actually tidal marshes, and should be labeled and treated as such. This identification process is important only for those areas where the potential for groundwater and/or surface water contamination exists (i.e. generally the portion of NASP east of Sherman Field). A complete identification of all natural resources at NAS Pensacola is not needed. The fact that many of the NASP Wetlands are not located near an existing PSC should greatly simplify preparation of an RI/FS Work Plan for OU 16.
4. Utilize existing information (reports, agency/department data bases, etc.) to characterize the hydrodynamics of the Bay and Bayou (e.g. tidal current patterns, seasonal variations, vertical and horizontal flow dynamics, depositional patterns, water quality, etc.) to the maximum extent possible. Include this information in the work plan as justification for any proposed sampling and analysis plans aimed at characterizing and delineating the COCs for OUs 15-17.

II. INFORMATION WHICH SHOULD BE COLLECTED PRIOR TO WORK PLAN DEVELOPMENT BUT WHICH CAN BE PARTIALLY DEFERRED TO THE EARLIER STAGES OF THE REMEDIAL INVESTIGATION:

1. Develop complete listings/descriptions of the flora and fauna present at individual PSCs and OUs 15-17. This information is needed to select the appropriate organisms for any biological testing deemed necessary. The occurrence of high priority resources (e.g. threatened and endangered species and habitats) will also largely define the ultimate goals of these **RI/FSs**, since the completed assessment of the impacts on all flora/fauna must be adequate to satisfy the natural resource concerns of both the trustees and EPA. For these reasons, it is in the Navy's best interests to characterize the flora/fauna as early in the process as possible.

2. Develop an adequate understanding of surface water pathways and their interaction with groundwater pathways. In order to assure that the RI/FS sampling plan developed for OUs 15-17 is adequate, the Navy will have to (i) define all contaminant migration pathways and (ii) assess the potential for contaminant transport into the Wetlands, Bay and Bayou. Such an understanding is important only in areas where the potential for groundwater and/or surface water contamination exists (i.e. generally the portion of NASP east of Sherman Field). An intense hydrologic study of the entire base is not needed.

SPECIFIC RECOMMENDATIONS ON HOW TO FILL THESE INFORMATION/DATA GAPS:

1. Information on the flora/fauna obtained during the habitat/biota surveys conducted for individual PSCs can be combined with information available in the literature to develop a preliminary listing/description of the flora/fauna for OUs 15-17 prior to work plan development

Qualitative sampling of the flora/fauna should be performed during the first portion of the RI for OUs 15-17, as needed, to fill in any data gaps concerning potential ecological receptors that were not addressed during the PSC-specific habitat/biota surveys (see the two-phased approach recommended in 111.2).

With regards to any proposed biological testing, the Navy may propose a general class of organism (e.g. benthic) for potential biological testing in the initial work plan. The Work Plan may then be followed, at a later date, by a technical memorandum which presents the specific details of the necessary tests (see the two-phased approach recommended in 111.2).

2. The contractor should be able to compile a general understanding of surface water and groundwater pathways prior to work plan development through review of existing information. The work plan should include the most complete PSC-specific description of surface water and groundwater flow pathways possible. Additional valuable information can be obtained by collecting the following data prior to work plan design:
  - a. a comprehensive set of water level measurements for existing wells during the proposed well inventory, and
  - b. continuous water level measurements through the use of recorders that could be installed at key wells and select surface water bodies

As any remaining, more specific data gaps become filled through the ongoing site-specific investigations, the original sampling plans can be expanded as necessary to reflect any new, relevant information. Collection of such relevant information during site-specific investigations should thus be given higher priority to the extent practicable.

III. DESIGN AND CONTENT OF THE RI/FS WORK PLANS:

1. The establishment of acceptable background sampling locations is a critical component of the RI/FS Work Plans. In order to select

appropriate locations, the contractor should complete a thorough review of existing background information prior to development of these work plans.

2. The extent of contamination needs to be better defined for the various media (surface water, soil and sediment) prior to proceeding with any biological sampling. Due to the current lack of such information, and the extreme cost, and lengthy time periods associated with performing a full-scale ecological assessment (biological testing, etc.) up front, it may be appropriate to conduct the RI/FS for OUs 15-17 in 2 phases.

The first phase would utilize existing data to initiate sampling of the various media in areas of the Bay, Bayou and wetlands which are most likely to contain contamination. The purpose of this portion of the investigation would be to characterize and delineate the contamination in these ecosystems that is attributable to NAS Pensacola. Information gathered during site-specific investigations should be utilized as it becomes available to modify and/or expand upon the initial sampling plan. For this reason, any PSC-specific data gathering efforts which may prove useful in the RI/FS for the Bay, Bayou and Wetlands should be given the highest priority practicable. As mentioned previously, this phase should also include any qualitative sampling of the flora and fauna needed to fill in data gaps concerning potential ecological receptors.

Results of the media analyses should be used to design the second phase: a refined ecological study tailored to the contaminants of concern and the biological receptors of interest. Ecological sampling and analytical tasks should also be ordered in a manner which will permit progressive focusing of the number of samples and analyses needed, so that the most sophisticated, time-consuming and costly tasks can be performed on the smallest number of samples possible. This phase may include tasks such as quantitative benthic macroinvertebrate community analysis, toxicity tests, and tissue analysis/bioaccumulation studies, etc. as appropriate.

3. The most significant human health concerns noted which need to be addressed in these work plans include the exposure potential at the following locations:
  - a. Ski beach and the boy scout camp located immediately north of Site 1: Sanitary Landfill. Sampling should address ground-water discharge to surface water in these areas of heavy public use. The surface soils near the bayou and the bayou sediments in the area of ski beach are of particular concern.
  - b. The bayou north-northeast of Site 11: North Chevalier Disposal Area is of concern due to erosion of the landfill by the bayou and the close proximity to the NASP marina. The potential for discharge from numerous other PSCs to this portion of the bayou (e.g. Site 30: Buildings 649 & 755) also exists.
  - c. Pensacola Bay: during the visit to Site 2: Waterfront Sediments Area a person was observed fishing from the old seaplane ramp area. Ingestion of fish from the Bay should be addressed

The following PSC-specific observations and recommendations, relevant to the RI/FS for OUs 15-17, were made regarding the higher priority sites identified at the beginning of this memo:

Site 1: Sanitary Landfill

1. A sheen was noted on the water at North Pond where it empties into Bayou Grande. The source of this potential contamination should be determined and surface water and sediments should be collected for analysis during a similar recurring event.
2. Terrestrial fauna with small home ranges would be appropriate sample organisms for bioaccumulation studies, if needed,
3. According to the Navy, monitoring wells GM-05 and GM-41 have been abandoned. These wells are located at key monitoring locations (i.e. at the downgradient edge of the landfill) and will probably have to be replaced
4. To determine the degree of interaction between surface water and ground water in the area of this site, continuous water-level recorders should be installed in at least one monitoring well and an adjacent surface water body. The most suitable pair of locations would be the shallow well which replaces GM-05 and the North Pond. A rain gauge should also be installed near the pond to determine the response of surface water and ground water to rainfall events.

Site 11: North Chevalier Disposal Field

1. The Figure 2-2 site map from the Work Plan shows a dredged turning basin and channel in the arm of Bayou Grande, downstream of Site 11. This information should be considered in interpreting sampling data from this area.
2. Several group members questioned the reason for the presence of two containment booms, one located across the broad part of the arm of Bayou Grande, at the northern part of Site 11, and a second located across the creek which leads into the arm.

Site 30: Buildinus 649 & 755

1. A broken pipe or small outfall with a pulsating water discharge was noted in the southeastern portion of the wetland associated with this site. This same discharging pipe is apparently mentioned on page 9-2 of the Interim Data Report for this site. The source of this surface water discharge should be identified and rectified
2. Very little fauna was observed in the creek channel which the wetland feeds into (on the southeastern side of Murray Road). The reason for this absence should to be identified and/or investigated
3. A continuous water level recorder should be installed on the proposed monitoring well 34 which will be located adjacent to the marsh and creek. The

stage of the creek should be measured periodically and compared to ground water levels to **determine** the extent of the interaction between surface and ground water in this area.

The following PSC-specific observations and **recommendations** pertaining to these **same sites** are not directly relevant to the RI/FS for **OUS 15-17**:

Site 1: Sanitary Landfill

1. A buffer zone should **be** established around the tidal marsh on the golf course (the "Golf Course Pond") to help insulate the tidal marsh from the effects of golf course maintenance.

Site 30: Buildings 649 & 755

1. A **RCRA** inspection should be performed in the vicinity of the building/storage area. The housekeeping practices in this area appeared extremely **poor**. Any existing deficiencies **must** be rectified to assure that there are no ongoing releases at the site prior to initiating an expensive monitoring program

Waynon Johnson, the NOM representative on the tour, made the **recommendation** that the Navy identify a "Natural Resource **Trustee**" for the facility. This appointment would serve as an acknowledgement by the base commander that he intends to fulfill his obligations as a "trustee" who **is** responsible for the facility's natural resources. It may be advisable to identify an individual other than the IR Program coordinator in order to avoid the appearance of a conflict of interest between the **CERCLA** remedial and Natural Resource Trustee programs. The individual **so** appointed should contact and initiate consultation with the federal and state endangered species offices (NOAA, **FWS & FDNR**). This will assure that all appropriate endangered and threatened species considerations will be addressed to the satisfaction of all federal and state Natural Resource Trustees. In the **RPM's** opinion, this approach should also facilitate the complete and timely consideration of these issues in the Remedial Investigations for **OUS 15-17**, thus eliminating the need for **similar** or duplicative field efforts at a later date under a separate program.

The following potential sources of background information were noted and may provide additional guidance to the Navy in their design of these **RI/FS** Work Plans :

1. The Pensacola Bay System (July, 1991): a publication prepared by the Northwest Florida Water Management District under the S.W.I.M. (Surface Water Improvement and Management) program.
2. **EPA's ERL-Gulf Breeze Lab**: personnel at the lab have completed a variety of studies on the Bayou Grande and Pensacola Bay areas

3. **FDNR, Division of Marine Resources:** can provide general information for water bodies in the area (e.g. tidal ranges)

4. **USGS:** should be able to provide information on tidal gauge stations in the area

5. **Area Universities (e.g. U. of W. Florida):** studies by professors and graduate students may be available

I.R. SITE TOUR  
NAS PENSACOLA

5 MAR 92

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