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Hazardous Materials Response and Assessment Division
Coastal Resources Coordination Branch

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NAS PENSACOLA
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17 July, 1992

Commander, Southern Division
Naval Facilities Engineering Command
Post Office Box 10068
2155 Eagle Drive
Charleston, SC 29411-0068

Attention: Linda Martin, Project Manager, NAS Pensacola

Dear Ms. Martin:

Review of the subject documents for the Pensacola Naval Air Station, Pensacola, Escambia County, Florida was conducted by technical representatives of the Natural Resource Trustee for the National Oceanic and Atmospheric Administration, U.S. Department. Of Commerce. The following comments are offered for your consideration.

Documents Reviewed:

1. Draft Data Summary and Preliminary Scoping for Ecological Risk Assessment Work Plans. Ecology and Environment, Pensacola, FL. May 1992.

Comments:

General Comments:

The report reviewed is a summary of available information organized according to site contributions to Pensacola Bay, Bayou Grande, or facility wetlands that will be investigated as Operable Units (OU) 15, 16, and 17, respectively. The report presented information from habitat/biota surveys developed primarily from literature searches and information (not data) from recently completed Phase I investigations.

The Phase I investigations generally included soil and groundwater sampling within the identifiable limits of the sites. Surface water and sediment samples were collected at those sites near surface water bodies. Analyses of the Phase I samples were for eight metals and limited organic parameters that included total petroleum hydrocarbons, volatile organic compounds (VOCs), total phenol, total polynuclear aromatic hydrocarbons (PAHs), total polychlorinated biphenyls (PCBs), and pesticides. The analyses did not use standard Contract Laboratory Program (CLP) protocols and the detection limits used for pesticides and PCBs were too high to measure at concentrations known to cause adverse environmental effects, Detection limits used for pesticide analysis of water and soils/sediment samples were 5.0 µg/l and 1.0 mg/kg, respectively. Detection limits used for PCB analysis were 10 µg/l (water) and 5 mg/kg (soils/sediments). The detection limits should be as low as the chronic AWQC and ER-L concentrations for the results to be meaningful for assessing the effects on aquatic organisms. Mercury was not included as an analyte except for

groundwater samples collected from an existing permanent monitoring well. Unless excluded for an appropriate reason, it should be included in sample analyses.

Contaminants associated with activities at NAS Pensacola represent a serious threat to NOAA trust resources. The extent and magnitude of contamination within Pensacola Bay, Bayou Grande or the facility wetlands have not been clearly delineated. Data collected during Phase I should be used as initial screening for identifying contaminated areas. Because sampling and analyses were limited in scope, Phase I data nor the lack of site data should be used to eliminate areas as potential sources of contamination, or to assess risks to aquatic organisms. Formal risk assessments should be performed after adequate sampling and chemical analyses have been conducted to delineate and characterize contamination in those areas. This includes collecting Phase II data and performing biological evaluations such as toxicity tests, bioaccumulation studies and population/community bioassessments. A combination of laboratory and in situ field investigations can provide site-specific data that would facilitate evaluating the effects due to site-related contamination.

There seems to be an orientation toward subdividing the three environmental OUs into subunits, some of which would be sampled while others considered to be unaffected would not. There is not a sense that knowledge of groundwater movement and discharge zones are sufficiently well known to eliminate areas from further consideration. Also, estimation of intertidal areas that might receive contamination based only on current conditions disregards past drainage patterns plus unknown historical releases. These factors combine to suggest that a better approach to consider is to conduct a broad sweep of near shore areas using screening techniques such as for toxicity testing (e.g. Toxichrome or Microtox) and/or community structure analysis.

With the designation of specific operable units for Ecological Risk Assessment (ERA), NAS has de-coupled site source control from ecological risks resultant from off-site contaminant migration. As long as the ERAs for the environmental OUs are performed properly, this will be a practical and effective approach. However, all must keep in mind that source control action levels predicated on a site-based risk assessment may not be protective of ecological receptors exposed to contaminants migrating off-site. If the risk assessment results for the three OUs indicate that a specific site source presents an unacceptable level of risk, clean-up action levels for that site may need revisiting.

Pensacola Bay:

Some sites (Sites 5, 6, 7, 8, and 22) are designated as having no potential impact on the Bay, but documentation upon which the determination is based is not presented. Sites so designated should have the rational and documentation for the determination presented in the site's ERA in order to eliminate it from further consideration in the ERAs for the three environmental OUs.

There are a few significant species that should be added to the species of concern list for Pensacola Bay: Atlantic bottle-nosed dolphin, manatee and Gulf sturgeon. Table 1 list species of interest to NOAA that may occur in the Pensacola Bay area.

Bayou Grande:

Sites not identified in the report as contributing to Bayou Grande contamination, but are located within the eastern Bayou Grande watershed, include Sites 12, 25, 26, 27, 31 and some portions of Site 36. Sites in the center of the peninsula that may also contribute to Bayou Grande contamination include Sites 6, 7, 8, 22, and 24. Of the sites not included in the report but identified as sites potentially of interest to NOAA are Site 12 (Scrap Bins) and Site 24 (DDT

Mixing Area). Again, sites should not be eliminated from further consideration without sufficient documentation justifying such actions.

Wetlands:

An ecological risk assessment cannot be conducted for the wetlands without further sediment and surface water sampling to delineate the magnitude and extent of contamination.

Specific Comments:

Pg 3-6.1st.¶: Detection of the highest concentration downgradient may simply be an indication of contaminant migration, not additional sources.

Pg 3-6. 2nd.¶: It is not likely that the PCB spill area (Site 18) would have a significant groundwater pathway to the Bay. Overland runoff is a more likely pathway. The same may be true for Site 20, depending on the nature of what the pipes carried.

Pg 3-9.2nd.q: The majority of contaminant types at NAS Pensacola would be sediment-associated and therefore the proportion that is exported through flushing is minimal.

Pg. 3-9. §3.1.2: Greater descriptions of the underwater surveys and beachfront and intertidal surveys at sites 2, 13, 14, and 21 should be presented.

Pg 3-10. 1st.¶: An estuarine environment such as Pensacola Bay would most typically have higher diversity than is indicated. Although there are natural stresses due to fluctuating salinity regimes alone, this type of dynamic environment offers more niches than a static system. This lack of diversity should be taken as yet another indication of external stresses to biota, presumably anthropogenic in origin.

Pg 3-28. 2nd.¶: Migrant populations are not necessarily at less risk than residents. Spawning populations could be at greater risk; recruitment of larval forms using the area as nursery grounds could be significantly affected. Individuals that have not become acclimated could be at risk to exposures that residents have become accustomed to. These types of unsubstantiated, generic statements should be eliminated.

Thank you for providing NOAA the opportunity to comment on this site and for keeping me appraised of ongoing activities. I will be happy to discuss any questions or comments pertaining to this review that you may have. My telephone number is (404) 347-5231.

Sincerely yours,

Waynon Johnson
Coastal Resource Coordinator
NOAA, Region IV

Table 1. Important fish and invertebrate species and habitat use in Pensacola Bay and Bayou Grande.

Common Name	SPECIES Scientific Name	HABITAT Spawning	Nursery	Adult Forage
ANADROMOUS/CATADROMOUS FISH				
Gulf sturgeon	*Acipenser oxyrhynchus desatoi*			M
American eel	*Anguilla rostrata*		◆	
striped bass	*Monrone saxatilis*		◆	◆
ESTUARINE/MARINE				
Fish				
Bay anchovy	*Anchoa mitchelli*	◆	◆	◆
sheepshead	*Archosargus probatocephalus*		◆	◆
gafftopsail catfish	*Barge marinus*	◆	◆	◆
silver perch	*Bairdiella chrysoura*			◆
Atlantic menhaden	*Brevoortia tyrannus*		◆	◆
sand seatrout	*Cynoscion arenarius*	◆	◆	◆
spotted seatrout	*Cynoscion nebulosus*	◆	◆	◆
ladyfish	*Elops saurus*		◆	◆
pinfish	*Lagodon rhomboides*		◆	◆
spot	*Leiostomus xanthurus*		◆	◆
red snapper	*Lutjanus campechanus*		◆	◆
Atlantic croaker	*Micropongonias undulatus*		◆	◆
striped mullet	*Mugil cephalus*		◆	●
Gulf flounder	*Paralichthys albigutta*		◆	◆
southern flounder	*Paralichthys lethostigma*		◆	◆
bluefish	*Pomatomus saltatrix*		◆	◆
vermilion snapper	*Rhomboplites aurorubens*			◆
red drum	*Sciaenops ocellatus*		◆	◆
Spanish mackerel	*Scomberomorus maculatus*			◆
amberjacks	*Seriola* sp.			◆
longspine porgy	*Stenotomus caprinus*			◆
inshore lizardfish	*Synodus foetens*			◆
southern hake	*Urophycis floridana*			◆
spotted hake	*Urophycis regia*			◆
Invertebrates				
scallops	*Aequipecten irradians*	◆	◆	◆
blue crab	*Callinectes sapidus*		◆	◆
hard clam	*Mercenaria mercenaria*	◆	◆	◆
white shrimp	*Penaeus setiferus*		◆	◆
brown shrimp	*Penaeus aztecus*		◆	◆
Marine mammals				
West Indian manatee	*Trichechus manatus latirostris*			M
Atlantic bottlenose dolphin	*Tursiops truncatus*			◆

M: These species are present as migrants only