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NAS SAUFLEY FIELD
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RESPONSE TO FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STAKEHOLDER COMMENTS REGARDING FINAL PRELIMINARY ASSESSMENT FOR
UNEXPLODED ORDNANCES 1 AND 2 (UXO 1 AND 2) NAS SAUFLEY FIELD FL
8/1/2009
MALCOLM PIRNIE, INC.

**Final Preliminary Assessment Report for Naval Air Station Pensacola
Response to Stakeholder Comments
Florida Department of Environmental Protection**

Comment No.	Comment	Response
<i>Florida Department of Environmental Protection Comments</i>		
1	<p>General Comment: The Department thinks it is premature to concur with the recommendation for No Further Action (NFA) for the Chevalier Field Machine Gun Range and the Chevalier Field Pistol Range sites at this time. Naval Air Station Pensacola (NAS Pensacola) assumed these sites would qualify for NFA because both of these sites are now located under a building and a parking lot. The Department recommends that NAS Pensacola conduct an assessment to determine if contamination is present or absent at these sites. Depending on the results of the assessment appropriate restoration alternatives should be proposed. It is possible that assessment results may provide a basis for an NFA proposal or an NFA with controls.</p>	<p>The Navy agrees to perform additional evaluations of these sites to determine if adequate information can be assembled to develop a consensus for a NFA determination.</p>
2	<p>General Comment: The Department thinks it is premature to concur with the recommendation for NFA for the National Cemetery Gunnery Area North site. NAS Pensacola has stated that data collected during the remedial investigation for Operable Unit 1 demonstrates that this site does not have contamination in the groundwater or soil that would show that this site has any contamination normally found at a MC or MEC site. The Department would like to be provided the technical data that supports this conclusion prior to considering any remedial options for this site.</p>	<p>The area where the former impact berms were located for the National Cemetery Gunnery Area North ranges is located within Site 24 of Operable Unit (OU) 13 (see Map 5.7-2). A Record of Decision (ROD) was issued for OU 13 on 10 August, 2006 . The ROD states that no action is necessary for OU 13 soil, and land use controls were implemented to restrict groundwater use of the surficial zone of the sand-and-gravel aquifer until cleanup levels are met. Please see Attachment 1 to these responses for a summary of technical data that support the no further action recommendation.</p>

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3	General Comment: The possibility of contaminated soil leaching into the groundwater needs to be discussed. Leachability and groundwater contamination need to be taken into consideration with the geology found at these sites. Please refer to Chapter 62-780.680(2) Florida Administrative Code (F.A.C.), for guidance on this matter.	Leachability and groundwater contamination is addressed in the Conceptual Site Model (CSM) developed for each site in the report. Specifically, groundwater contamination and leachability are discussed in the CSMs under Section 5.x.7 Contaminant Migration Route and Section 5.x.11 Conceptual Site Model (x represents the second level heading number).
4	General Comment: There is no one site inspection process that fits all Munitions Response Sites (MRPs). Uniform Federal Policy Sampling and Analysis Plans (UFP SAPS) for each site should be done on a case by case basis. The more that is known about the site the less sampling that is needed during this stage. More extensive composite sampling and discrete sampling (at the same time) may be appropriate at some sites (when less is known about the site); fewer biased soil samples can be collected in a grid pattern or from a firing arch pattern if enough information (historical and otherwise) is known about these sites; for example, location of the site perimeter.	The Navy plans to conduct SIs at the sites as the next step under the MRP. Based on the information presented in the PA Report, enough data was collected to indicate that the sites will require further investigation. While the PA report provides historical and current information regarding the sites, it was not the Navy's intent to convey site specific recommendations regarding the next course of action in this report. As such, the Department's comments regarding these sites will be taken into consideration during scoping of the SI.
5	General Comment: The contaminants of concern (COCs) to be analyzed in the surface, subsurface soil and groundwater will be determined on a case by case basis for the munitions constituents (MC) and munitions and explosives of concern (MEC) sites. If adequate historical documentation is able to be provided the Department is willing to take this information into consideration when determining	The Navy plans to conduct SIs at the sites as the next step under the MRP. Based on the information presented in the PA Report, enough data was collected to indicate that the sites will require further investigation. While the PA report provides historical and

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	<p>the COCs to be sampled. Historical information is limited for the site the Department would like to recommend sampling for the following COCs , but not limited to, for MC and MEC sites:</p> <ul style="list-style-type: none"> • Lead • Arsenic • Zinc • Antimony • Copper, and • Tin • Polynuclear Aromatic Hydrocarbons (PAHs) • Explosives 	<p>current information regarding the sites, it was not the Navy's intent to convey site specific recommendations regarding the next course of action in this report. As such, the Department's comments regarding these sites will be taken into consideration during scoping of the SI.</p>
6	<p>General Comment: Please refer to attached tables which will explain the COCs to be sampled at these sites: Table 2 which explains the different sites and what the Department thinks is the appropriate COCs to sample for these sites. Table 2A, entitled, "Target Analyte List for Explosives by LCIMS" which lists the explosives that should be included as a COC and the appropriate method for laboratory analysis. Table 28, entitled, "Target Analyte List for Inorganics by ICPIMS" which lists the metals that should be included as a COC and the appropriate method for laboratory analysis.</p>	<p>The Navy plans to conduct SIs at the sites as the next step under the MRP. Based on the information presented in the PA Report, enough data was collected to indicate that the sites will require further investigation. While the PA report provides historical and current information regarding the sites, it was not the Navy's intent to convey site specific recommendations regarding the next course of action in this report. As such, the Department's comments regarding these sites will be taken into consideration during scoping of the SI.</p>

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7	<p>General Comment: The Department would like to note that we are concerned with the MC sites that do not have "skeet" in the title and would like to see as much information as possible that confirms this site was never a skeet range. If NAS Pensacola is unable to provide this information the Department would like to recommend that the soil be sampled for PAHs in the appropriate place on the range.</p>	<p>During the Preliminary Assessment, a comprehensive review of historical documentation for NAS Pensacola was conducted as detailed in Section 4.0. Based on the historical research, interviews conducted from site personnel, and site observations made during the Preliminary Assessment, there is no evidence that any sites other than those already designated as skeet ranges were used as skeet ranges. Therefore, PAHs are not anticipated to be present at those sites and are not included as MC of concern in the PA reports. During the Site Investigation work plan development, the MC sampling plan may be further refined if needed.</p>
8	<p>General Comment: FDEP reserves the right to provide additional comments on any future documents as needed, and reserves the right to change the approach with any additional information obtained for these sites.</p>	<p>We understand that FDEP retains the right to comment on any additional information.</p>

Attachment 1
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The purpose of this attachment is to provide supplemental information to address Florida Department of Environmental Protection (FDEP) comment #2 on the Draft Final Preliminary Assessment, Additional Areas of Concern, Naval Air Station (NAS) Pensacola (dated November 2008):

General Comment: The Department thinks it is premature to concur with the recommendation for NFA for the National Cemetery Gunnery Area North site. NAS Pensacola has stated that data collected during the remedial investigation for Operable Unit 1 demonstrates that this site does not have contamination in the groundwater or soil that would show that this site has any contamination normally found at a MC or MEC site. The Department would like to be provided the technical data that supports this conclusion prior to considering any remedial options for this site.

Much of the area within the boundary of the National Cemetery Gunnery Area North site is overlapped by Installation Restoration Program (IRP) Site 24, which is part of Operable Unit (OU) 13. Site 24 overlaps the area where the former backstop berm for the National Cemetery Gunnery Area North ranges was located (please see Map 5.7-2 in the NAS Pensacola Preliminary Assessment report). This is the area where munitions constituents present from former range activities would be expected to be located, because nearly all of the bullets fired from the former ranges would have been captured by the backstop berm.

Previous Site Investigations

Site 24 was used to mix DDT with diesel fuel for mosquito control from the early 1950s until the early 1960s. DDT, reportedly spilled in the mixing area while being transferred from drums to spray tanks, may have contaminated soil and groundwater. Several environmental investigations have been performed for Site 24, as summarized below:

- Ecology and Environment (E&E; 1991) – A Phase I screening investigation of Site 24 was completed by E&E to identify areas and potential contaminants of concern. Lead, total recoverable petroleum hydrocarbons (TRPH), polynuclear aromatic hydrocarbons (PAHs), and the carbamate pesticide fluometuron were detected in soil. Metals, tetrachloroethene (PCE), and the carbamate pesticide methomyl were detected in groundwater. As a result, additional assessment was recommended for Site 24.
- EnSafe, Inc. (1996) – EnSafe, Inc. performed field investigations from 1995 through 1997 at OU13. A RI report summarizing the site investigations was submitted in August 1997, and a FS was submitted in May 1998.

- EnSafe, Inc. (1999) – Based on the RI review, additional information was deemed necessary to complete the OU 13 investigation. Supplemental field investigations were performed in March to May 1999 to further evaluate shallow soil and groundwater quality in the northernmost portion of Site 24. EnSafe submitted a Focused Feasibility Study Report for OU 13 on May 3, 2000.

Nature and Extent of Contamination at Site 24

The nature and extent of soil and groundwater contamination are summarized in the Record of Decision (ROD) for OU 13 (TetraTech, 2006). To evaluate the nature and extent of contamination in surface soil, the concentration of each detected compound was compared to FDEP's residential and industrial soil cleanup target levels (SCTLs) listed in Rule 62-777 F.A.C. Subsurface soil was compared to FDEP SCTLs in Rule 62-777 for the protection of groundwater. Groundwater values were compared to USEPA primary and secondary maximum contaminant levels (MCLs and SMCLs, respectively) and Florida Groundwater Cleanup Target Levels (GCTLs) in Rule 62-777. In addition, detected values for inorganic compounds in soil and groundwater were compared to site reference concentrations (RCs) that were developed specifically for NAS Pensacola. If detected concentrations were below the RCs, they are considered to be naturally occurring.

Soil

As presented in the ROD (TetraTech, 2006), only one metal, arsenic, exceeded its SCTL (2.1 mg/kg) at two locations on Site 24 (both locations along John Tower Road). Concentrations ranged from 2.8 mg/kg to 3.1 mg/kg. There were no lead exceedances in any of the soil samples collected from Site 24 (approximately 30 soil sampling locations).

Groundwater

Iron and manganese exceeded GCTLs and RC in shallow groundwater at Site 24. These exceedances were attributed to fertilizer application, which commonly contains water-soluble forms of these inorganics as essential nutrients. Metal fragments were found in the subsurface soil north of Building 3678, indicating that Site 8 fill activities extended to Site 24. Sporadic antimony, cadmium, nickel, and thallium exceedances in shallow groundwater are attributed to metal-alloy debris disposal at Site 8 and/or site 24. No exceedances of lead were reported in shallow groundwater (fifteen wells sampled).

Selected Remedy

In accordance with the ROD, the selected remedy for OU 13 was No Action for soil and land use controls (LUCs) with monitoring for groundwater. The groundwater LUCs restrict groundwater use of the surficial zone of the Sand-and-Gravel aquifer. Although concentrations of contaminants in on-site groundwater exceed remedial goals, these concentrations decrease before reaching the OU 13 boundary; therefore, under current and planned site uses, the groundwater exposure pathway is incomplete (TetraTech, 2006).

Conclusions

There were no exceedances of lead, the primary munition constituent of concern for small arms ranges, in soil or groundwater at Site 24. Given that the Site 24 area has been extensively studied, and that land use controls are already in place for groundwater in this area, we recommend that No Further Action is required at the National Cemetery Gunnery Area North site.