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Shirley Campbell
Executive Director

July 23, 2007

Mr. Keith Forman
BRAC Environmental Coordinator
Department of the Navy
Base Realignment and Closure Program Management Office West
1455 Frazee Road, Suite 900
San Diego, CA 92108-4310

**RE: DRAFT WORK PALIN FOR THE PARCEL E-2 R/FS, HUNTERS POINT SHIPYARD,
SAN FRANCISCO, CALIFORNIA**

Dear Mr. Forman:

Please see attached hard copy, enclosed report submitted by Community First Coalition for inclusion in the Administrative Records.

Community members and CFC feel, as do 86.5% of the voters in San Francisco feel, **EXCAVATION/REMOVAL** should be the remediation options for this Superfund site. The CFC Board members would like to thank our Technical Advisory Team of Dr. Peter Palmer and Gregg Grist for looking at alternative options to bridge the gap between cap/monitor and excavation.

CFC Board members believe as the TAG team has stated in their report "The Navy's presentation and arguments at the April RAB meeting to support their preliminary conclusion for a cap/monitor/treat option were based on a comparison of the Hunters Point Naval Shipyard (HPNS) to municipal and military landfills and presupposition of the applicability of the EPA's presumptive remedy. The E-2 landfill is known to contain radioactive wastes, PCBs, VOCs, and heavy metals. These are not municipal waste but industrial wastes and hence the applicability of the presumptive remedy to Parcel E-2 is inappropriate.

The CFC Board members urge the Navy to avoid the application of the presumptive remedy to Parcel E-2 and provide one or more "hybrid" remedial options that include several alternatives that bridge the gap between cap/monitor/treat and excavation/removal in the current draft R/FS.

If you wish to discuss contents of this report further, please contact Dr. Raymond Tompkins CFC TAG Program Manager at 415 722-7780 e-mail rtomp@sfccglobal.net.

Thank You,


Dr. Raymond J. Tompkins, Community First Coalition, TAG Manager
Executive Director CFC

23-July-2007

Dr. Raymond Tompkins, Executive Director
Community First Coalition (CFC)
1022 Plymouth Ave.
San Francisco, CA 94112

Dear Dr. Tompkins,

This document represents the technical advisor comment to the Navy's draft Parcel E-2 RI/FS. It includes comments that have already been presented to the Navy, various regulators, and community members at the April and June RAB meetings and the June technical subcommittee meeting. It should be noted that this work was made possible through the Community First Coalition through a grant from the EPA.

The Navy's 11,000 plus page draft RI/FS is well organized, provides a valuable historical and chronological overview of various remediation studies on this sites, and numerous figures, tables, and appendices. We commend the authors for what has been a tremendous amount of work, representing the efforts of many different Navy staff and contractors and the expenditure of a significant amount of taxpayer dollars over several decades on this parcel.

That being said, we recognize that this is a "work in progress", the current understanding of the site is incomplete (i.e., groundwater, landfill gases, and radiological monitoring is still in progress), and that it may be several years before the final RI/FS is completed. This Superfund site, its location within the city limits of a major urban environment, the many different types of contaminants which are present, the two subsurface aquifers flowing through the landfill, and its proximity to the San Francisco Bay present significant and complex challenges. We hope that the Navy, through input from various regulators and the community, can devise with a solution that minimizes risk to San Francisco residents and the Bay.

Our comments are provided in a numbered list on the following pages, in relative order of importance. We understand that the Navy is not obligated to solicit public comment at this stage in the process, and appreciate the opportunity to provide our comments at this time. While we realize that this document will go through several more revisions, we hope that the Navy will consider these as suggestions in the spirit in which they were made, which is to provide the public with more complete documentation on this parcel and a defensible justification as to the final disposition of this site.

Sincerely,

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1. The Navy's presentations and arguments at the April RAB meeting to support their preliminary conclusion for a cap/monitor/treat option were based on a comparison of the Hunters Point Naval Shipyard (HPNS) to municipal and military landfills and presupposition of the applicability of the EPA's presumptive remedy. The E-2 landfill is known to contain radioactive wastes, PCBs, VOCs, and heavy metals. These are not municipal wastes but industrial wastes, and hence the applicability of the presumptive remedy to Parcel E-2 is inappropriate. Moreover, the draft RI/FS only presents only two remediation options (cap/monitor/treat and excavation/removal). These are far too few remedial options for a site this complex (in fact, the Navy's draft final RI/FS for Parcel F includes *eight* different remedial options). **The Navy is urged to avoid the application of the presumptive remedy to Parcel E-2 and provide one or more "hybrid" remedial options that include several alternatives that bridge the gap between cap/monitor/treat and excavation/removal in the current draft RI/FS.**
2. The RI/FS does not include the most current radiological data. This is of great concern given that historical and anecdotal information indicates significant radiological contamination within the landfill, and the potential for both human and environmental exposure to these contaminants. *"The HRA (Historical Radiological Assessment) identified numerous locations within Parcel E-2 as "radiologically impacted", including ... the majority of Parcel E-2, the ship shielding area..., and the Parcel E-2 shoreline" (Source: E-2 RI/FS, page 3-15). "The HRA also indicated that the landfill was a potential disposal area for: 1) wastes from decontamination of ships used in atomic testing; 2) building debris from demolition of radiologically impacted buildings used by the NRDL; and 3) materials used in radiological experiments by NRDL" (Source: E-2 RI/FS, page 4-11). "Several areas with elevated levels of radioactivity were reported. The HRA recommended further characterization, followed by remediation and a final status survey" (Source: E-2 RI/FS, page 3-17).* Given that the radiological addendum to this draft RI/FS has not been provided, its release has been postponed numerous times (and is currently scheduled for release after the draft final RI/FS), any conclusions on how to remediate this site are premature. **The Navy is urged to provide the radiological addendum before issuing the draft final RI/FS so that any conclusions as to the best remediation option is based on a publicly available document that provides current data and the best available information as to the radiological contamination contained within this landfill.**
3. The RI/FS includes a tremendous amount of data on specific environmental contaminants, and in particular data on a wide variety of chemicals of concern in groundwater and soil gas. Many of the concentrations are reported to more than 3 and in some cases as many as seven significant figures in the tables and appendices. Such presentation of data is incorrect and provides misleading representation of the uncertainty of the measurements. Additionally, while the RI/FS briefly discusses some of the trends in the data in the body of the text, the data in the tables and appendices are presented in tabular format which makes it difficult to review visually inspect and identify trends in the data. **The Navy is urged to round these data to the first uncertain digit as per standard EPA practice, and provide figures which plot trends in contaminant concentrations as a function of time to provide a better visual representation of groundwater and soil gas data (i.e., bar graphs).**

4. The RI/FS indicates release of chlorine gas cylinder from the landfill area during construction of the sheet pile wall. *"An obstruction was encountered at a depth of 40 feet bgs, accompanied by a release of pressurized gas that escaped to the surface... Sporadic detections of ... chlorine gas above 5 ppm were encountered. Approximately 80 feet of the sheet pile wall (as originally designed) was re-aligned in order to avoid the subsurface obstructions"* (Source: E-2 RI/FS, page 3-9). It should be noted that chlorine gas is highly toxic and has been used as a chemical warfare agent in the past. While it is understood the Draeger tubes used to perform the chlorine gas monitoring can provide false positives and does not provide accurate quantitative data, this information raises a number of questions that are not addressed in this portion of the document. The fact that the sheet pile wall was moved and no further mention was made as to the identity of the obstructions and source of the gas release is disturbing and further investigation seems warranted. The use of ground penetrating radar (GPR) is a common, technically viable, and cost effective means for identifying buried waste drums and providing very detailed visual information on buried objects (i.e., <http://www.geomodel.com/>, <http://www.epa.gov/tio/> -search for GPR, <http://www.springerlink.com/content/kn83tr545uvce1c4/>, <http://info.ngwa.org/GWOL/pdf/900152827.pdf>). The Navy is urged to provide additional information as to why would chlorine gas be present in a landfill (is there historical evidence of the use of this gas on site in the past?), what was the time lag between release of the pressurized gas and chlorine gas monitoring, could this detection be due to the burial and rupture of a chlorine gas cylinder, and should not the Navy consider the use of GPR to provide visual data as to the identity/shape/size of the obstructions and confirm whether or not this could be due to the presence of gas cylinder(s) in the landfill. It was somewhat surprising to note that the draft RI/FS did not include any mention as to whether or not GPR was used to screen the contents of the landfill. Given community concerns about the contents of this landfill and evidence that waste drums have been found in the PCB hotspot and other parts of Parcel E-2, the Navy is urged to consider the use of GPR to provide a more thorough survey of the landfill and attempt to identify its contents including any buried waste drums.
5. The RI/FS includes data indicating successful removal of a large amount of PCB contaminated soil in the PCB hot spot area. Nevertheless, PCBs have been detected at high levels in both groundwater samples and soil samples within the other portions of Parcel E-2. *"Concentrations of PCBs exceeded the evaluation criteria in A-aquifer wells located near the sheet pile wall in the Landfill Area in 2002"* (Source: E-2 RI/FS, page 5-7). *"Total PCBs were detected at concentrations exceeding the RIEC (Remedial Investigation Evaluation Criteria) in soil between 0 and 10 feet within the Panhandle and East Adjacent Areas. The Landfill areas had concentrations of PCBs at depths greater than 2 feet bgs, including 6 samples... greater than 100 times the RIEC (0.74 mg/kg) and... may be considered potential hot spots within the landfill"* (Source: E-2 RI/FS, page 4-16). *"(Total PCB) detections exceeding the RIEC are consistent in two... wells (IR01MW43A and IR01MW44A)... where elevated concentrations may migrate to the Bay... Post removal action groundwater sampling is required"* (Source: E-2 RI/FS, page 5-24 to 5-25). Based on this information, it is apparent that PCB contamination in Parcel E-2 is widespread and includes several areas that may be categorized as hot spots. Moreover, PCBs are contaminating the groundwater and may be migrating towards the Bay. The Navy is urged to remove or remediate PCB contaminated soil in the Panhandle, East Adjacent Areas, and other potential hot spots within Parcel E-2, and to continue its sampling and monitoring of PCBs in groundwater and control or prevent its potential migration into the Bay.

6. The RI/FS includes a large amount of data on VOCs and chlorinated solvents in landfill gas and groundwater. Most of the data are not of concern and are below appropriate limits. The following data represents the maximum VOC concentrations detected in landfill gas for illustrative purposes (Source: E-2 RI/FS, Table 4-2):

1,2,4-trimethylbenzene	1.7%
Benzene	0.5%
Carbon disulfide	1.0%
Chlorobenzene	2.3%
Dichlorodifluorobenzene (CFC12)	4.2%
Propylene	26.0%

These are very high concentration that would be construed as evidence of hot spots requiring remediation. In addition, "NMOCs (Non-Methane Organic Compounds) were detected at 11 soil gas locations at concentrations > 5 ppm above background" (Source: E-2 RI/FS, page 4-16). This information indicates that NMOC concentrations are exceeding their limits and require application of appropriate remediation and control strategies. Additional information from the RI/FS indicates significant concentrations of VOCs and chlorinated solvents within a very large footprint of the landfill area and concomitant contamination of groundwater. "Elevated concentrations of benzene have been detected in wells in the A- and B- aquifers within an area... of 2250 by 1200 feet. 1,4-DCB... exceeded the MCL at the southern/central portion of the landfill in an area... of 1000 by 100 feet. Chlorinated solvents (7) exceeding their MCL... contamination is migrating laterally in the A aquifer" (Source: E-2 RI/FS, pages 5-5 to 5-6). "The most persistent benzene concentrations exceeding RIECs occur in 7 A-aquifer wells located mainly in the Landfill Area. The area surrounding these wells constitutes what has been identified as a benzene plume... Along the southern edge, consistently elevated benzene concentrations... may be migrating to the Bay" (Source: E-2 RI/FS, pages 5-32 to 5-33). The Navy is urged to indicate the specific remediation or containment methods that will be employed to prevent and control migration of these contaminants to groundwater, the Bay, and the atmosphere.

7. The RI/FS includes a large amount of data pertaining to heavy metal contamination in soil and groundwater. Some of this data indicates several metals in excess of their appropriate limits and/or potential migration of contaminants into the Bay. "Groundwater with elevated total chromium may be migrating to the Bay" (Source: E-2 RI/FS, page 5-20). "(Wells) IR01MW43A and IR01MW44A showed more recent detections (of lead) exceeding the RIEC. Concentrations exceeding the RIEC... were up to 2 times the RIEC in IR01MW43A, and almost 10 times the RIEC in IR01MW44A... The extent of lead in groundwater is adequately delineated except in IR01MW43A... elevated lead concentrations may be migrating to the Bay" (Source: E-2 RI/FS, page 5-21). "Data gaps exist for certain analytes along the Parcel E-2 shoreline, where chemical concentrations persistently exceeded RIEC" (Source: E-2 RI/FS, page 5-45). The Navy is urged to continue their monitoring and study of these problems and to specify the specific remediation or containment methods that will be employed to prevent and control migration of these contaminants to groundwater and the Bay.
8. The RI/FS provides evidence that the current landfill gas control system is ineffective. "Methane (is) migrating in two locations either through a tear in the (HDPE) barrier or over the barrier through the bentonite seal" (Source: E-2 RI/FS, page 4-19). The Navy is urged to provide more detailed information as to how any future landfill gas control systems will be constructed to avoid such problems in the future, and to factor the costs for any future repairs of this barrier into any associated remedial options.

9. **The RI/FS implies the use of a sheet pile wall and monitoring/control strategies to prevent migration of contaminants into the aquifers and the Bay. Nevertheless, there are serious concerns about how effective any containment methods would be in a landfill, which was constructed without the use of appropriate technologies to prevent migration of contaminants through the bay side of landfill. The Navy is urged to evaluate the longevity and long term integrity of the sheet pile wall, especially when considering the corrosive nature of saltwater, and to factor the costs for any future repairs of this barrier into any associated remedial options**

DISCLAIMER: This document has been partly supported through the use of EPA Technical Assistance Grant funds. Its contents do not necessarily reflect the policies, actions, or positions of the EPA. The Community First Coalition does not speak for nor represent the EPA.