

*Admin Record  
El Toro*

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MCAS EL TORO  
SSIC NO. 5090.3.A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

31 August 2006

Mr. Darren Newton  
BRAC Environmental Coordinator  
Base Realignment and Closure  
7040 Trabuco Road  
Irvine, California 92618

RE: Comments on the Draft Final Phase II Remedial Investigation (RI) Report, Installation Restoration Program (IRP) Site 1, Former Explosive Ordnance Disposal (EOD) Range, Former Marine Corps Air Station (MCAS) El Toro, California

Mr. Newton:

The EPA has completed its review of the subject document. While this document addressed many of our previous comments, we present in the attachment a number of comments on the Draft Final RI Report.

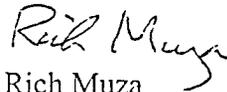
Due to the repetitive nature of some comments -- in particular, those on the various risk assessments, many of which were provided in our comments on the draft report -- and to expedite finalization of this document and advancement of the site work, we would recommend that a meeting or conference call be arranged to further discuss these comments prior to delivery of the Final RI Report.

Finally, the Navy notes in the RI Report that it intends to transfer the site to an entity which will use it for a similar purpose (ie., arms training, explosive demolition, etc.). It also notes that the effort to transfer the land to another agency for use as a training area has been in progress for several years now without success. Given the lack of success in transferring this property and the uncertainty that the site will ever be used again for a similar purpose, EPA cautions the Navy with regard to establishing cleanup levels which would preclude the use of the land for another purpose; this concern is present in many of the attached comments. It is recommended that this issue also be discussed in a meeting of all parties.

received  
9/4/06

If you should have any questions, please feel free to contact me at 415-972-3349.

Sincerely,



Rich Muza  
Remedial Project Manager  
Federal Facility and Site Cleanup Branch

cc Content Arnold, NFECSW SDIEGO  
Art Tamayo, NFECSW SDIEGO  
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John Broderick, RWQCB  
Bob Woodings, RAB Co-Chair  
Marcia Rudolph, RAB Subcommittee Chair  
Gerry Hiatt, EPA  
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## COMMENTS ON THE DRAFT FINAL PHASE II RI REPORT FOR IRP SITE 1, EOD RANGE, FORMER MCAS EL TORO, CALIFORNIA

1. Section 1.4, General – There are issues with the labeling of the tables. The citations appear to be incorrect throughout the background discussions. It is recommended that this issue be addressed in the final document.
2. Section 3.3.3, Page 3-36 – “There are very limited areas of these habitats onsite, which limit their significance.” From an ecological standpoint, the fact that these types of habitats are becoming rare in this area makes them very important and worthy of protection and expansion in any way possible. It is recommended that this statement be deleted from the text.
3. Section 4.1, Page 4-2 – A citation of Figure 1-3 is provided for the boundary of the geophysical survey grid while this information is actually presented on Figure 1-4. It is recommended that this error be corrected in the final document.
4. Section 4.3.2.9, Page 4-66 – “For the subsurface soil interval of 0 to 10 feet bgs, the maximum detection of 1,580 mg/kg exceeds both the California-modified PRG value of 150 mg/kg and the EPA Region 9 PRG value of 400 mg/kg. However, the 95 percent UCL value of 93.4 mg/kg is below both values.” This discussion appears to be addressing a lead detection that exceeded residential PRGs. However, no mention of lead is provided anywhere within this paragraph. It is recommended that this issue be clarified.
5. Section 4.5.2, Page 4-99 and Table 4-38 – The discussion states that there was a detection of bis(2-ethylhexyl)phthalate at 49 ug/l in 01-MW102; however, Table 4-38 reports this detection at 01-DGMW57. It is recommended that this discrepancy be resolved.
6. Section 4.5.5, Page 4-114 & Table 4-41 – The first bullet here contains statements that are not consistent with the water-quality data provided on Table 4-41. A review of this information suggests that data from both the January-February 2005 and March 2005 sampling rounds are being cited. However, some statements (eg., the highest perchlorate concentration of 185 ug/l) do not include the March 2005 data. It is recommended that this discrepancy be resolved.
7. Section 5.1.4, General – EPA provided a comment on the Draft RI Report regarding the presence and migration of perchlorate in ground water at Site 1 years after activities which would have released this contaminant into the environment were terminated by the Marines (see Comment #33 from our August 24, 2005 letter). In our comment EPA recommended that potential hydrogeological scenarios that support these issues be further discussed in the text. EPA is in agreement with the Navy’s response to this comment as provided in Appendix I to this report. While some of the information presented in the response is incorporated into the discussions within the Draft Final RI Report, it is recommended that additional discussion be added to this section to adequately cover the issues addressed in the response to our previous comment.

8. Section 5.1.4.2, General – The information provided in this discussion was expanded from the draft to the draft final. This has provided a more detailed assessment of perchlorate migration at Site 1. However, some of the discussion is confusing as presented. For example, the final statement of this section (page 5-11) refers to “the geological equivalent of a ‘stain’”. It is recommended that an edit of this discussion be performed to assure that the text is fully understandable in the final report.

9. Section 5.1.5, Page 5-11 – “The upper reaches of the alluvial channel in the vicinity of 01-HA10...” The citation of “01-HA10” appears to be incorrect; is the hydropunch sampling location being addressed here “01-HPA10”? It is recommended that this discrepancy be resolved.

10. Section 6.5.4, General -- Assessment of the vapor intrusion potential for VOCs in soil and ground water at the site was performed via the Johnson and Ettinger (J&E) model starting from VOC concentration data in either the soil matrix or ground water (see results presented in Tables G-13 and G-16). Of the two approaches, EPA’s preference is for decision-making to focus on potential indoor impacts predicted by modeling from ground water, because of the greater uncertainties of modeling from soil matrix data. In the event of future development at Site 1, either residential or commercial, it is recommended that the Navy consider the following: 1) perform soil vapor monitoring at the site and rerun the J&E model using soil vapor data as the input and 2) installing a passive vapor barrier, with option to be retrofitted to an active system, under occupied structures.

11. Section 6.6.2, Page 6-40 and Table 6-4 -- As noted in our previous comments on the Draft RI Report, the site-specific risk evaluation for the “Construction/Utility Workers” makes the assumption that a construction/utility worker’s exposure duration is 3 years for the RME scenario and 1 year for the CT scenario. By using these exposure duration values, the risk assessment inherently assumes that MCAS El Toro is the only contaminated property that a construction/utility worker receptor will ever work on; this assumption is unrealistic. Given the general paucity of previously undeveloped land in Southern California and the recent emphasis by municipalities and government agencies to redevelop ‘brownsfield’-type properties, it would be more reasonable to assume that Southern California construction/utility workers routinely encounter contaminated properties. Therefore, in order to generate a soil PRG which achieves a given target risk level over a construction/utility worker’s career, it would be more appropriate to assume that 50% (RME) to 25% (CT) of that career involves work at contaminated properties. Over a 25 year working career, the corresponding exposure durations would be 12.5 years (RME) and 6.25 years (CT). No change on this issue has been made in the Draft Final RI Report. In the Appendix I response to review comments on the Draft RI Report, the Navy acknowledged “that a construction worker could encounter contamination at locations other than Site 1” but disagreed “that this information should be reflected in exposure assessment assumptions for Site 1 because this risk assessment focuses on incremental risks posed by the site and does not attempt to estimate lifetime risks for construction workers (or other receptors)...” (see response to EPA Comment #44 in Appendix I). It is technically correct that Superfund risk assessment guidelines do not attempt to estimate risks from an entire lifetime of exposure. However, examination of the default assumptions for residential and commercial/industrial RME scenarios clearly shows an intent to address potential risks arising

from exposure durations reflecting a majority or a significant fraction of a lifetime or working career (eg., residential exposure duration = 30 years, commercial/industrial = 25 years). In this context, using an assumed exposure duration of 3 years for a construction/utility worker in Southern California seems incompatible with the intent of Superfund's risk assessment guidance. It is recommended that our comment on this issue from review of the Draft RI Report (Comment #44 in our August 24, 2005 letter) be taken into consideration by the Navy and be addressed in the Final RI Report.

12. Section 7, General -- The CADF&G (see Dr. Regina Donohoe's August 1, 2006 letter) have addressed the specific toxicological issues raised in their review of the Draft RI Report. Many of their comments on the draft have not been addressed to by the Navy in the draft final. EPA recommends that the Navy (as recorded in our letter of August 24, 2005) revise the document to address these comments.

13. Section 7, General -- The general tone of the ecological assessment is that there is no risk to biota on site; however, there are instances where the document states that there may be risk to individuals, yet there is no risk to populations (eg., Executive Summary, Page xi). This is a vague and potentially misleading statement that is not based on investigation of the populations on-site. If there is potential risk to the individual (supported both by Dr. Donohoe's and the Navy's calculations), then there is risk to populations. If the Navy is convinced that risk to individuals does not present a risk to populations, then the Navy should propose population studies to support this premise. It is recommended that this issue be addressed in the final document.

14. Section 7, General -- While there are numerous maps displaying contaminant exceedences for human health, there is a lack of maps in the main text showing exceedences of ecological criteria. It is recommended that the maps found in Appendix H be reproduced and placed in the appropriate sections in the main text in the Final RI Report.

15. Appendix G, PRG Values -- There appear to be a number of incorrect EPA Region 9 PRG values in the various tables in Appendix G. The Region 9 PRG value for benzene in residential soil appears to be incorrect. The value listed in Tables G-11 and G-12 is 1.00E+03 ug/kg (1,000 ug/kg); the correct value should be 6.4E-01 mg/kg (0.64 mg/kg). The tap water PRG also appears to be incorrect. The value listed in Table G-52 is 3.36E-01 ug/l; the correct value should be 3.5E-01 ug/l. The Region 9 PRG value for bis(2-ethyl,hexyl)phthalate in residential soil also appears to be incorrect. The value listed in Tables G-11 and G-12 is 3.77E+04 ug/kg (3.77E+01 mg/kg); the correct value should be 3.5E+01 mg/kg. It is recommended that these issues be resolved.

16. Appendix H, Section 2.1.3, Page 2-13 -- The surface soil values should have been screened against the Navy BTAG TRVs. As the State has pointed out in their comments, this approach would have produced a more conservative screening and, therefore, would be more protective of the biota on site. It is normal procedure to screen against the most conservative values and then, if necessary, adjust the exposure to more site-specific values in the baseline ecological risk assessment. It is recommended that the Navy follow standard protocols and use the BTAG TRVs as requested by the State to assess risk.

17. Appendix H, Section 2.1.7, Page 2-27 – “The primary source of TRVs was the ‘TRV-low level’...” The Navy does not use these BTAG values in this document. It is recommended that this issue be addressed in the final document.

18. Appendix H, Section 2.2.2.1, Page 2-34 -- “It is assumed that if risks are judged insignificant for the average individual receptor, they will be considered insignificant at the population level. However, if risks are present at the individual receptor level, risks may or may not be important at the population level.” This contradicts earlier statements that risk to the individual does not imply risk to the population. It is recommended that this conflict be resolved in the final document.

19. Appendix H, Section 2.2.4.1, Page 2-42 & Section 4.1, Page 4-1 – It is stated in Section 2.2.4.1 that two Ephemeral Pond samples were taken and that in combination, aluminum, barium, copper, lead, and mercury all exceeded aquatic life criteria. However, the last sentence in this section states that only aluminum, barium and copper exceeded aquatic life criteria. In addition, in Section 4.1 it is also stated that four metals (aluminum, barium, copper and mercury) exceeded the screening values. It is recommended that the discrepancies between these various sections be resolved.

20. Appendix H, Section 3.4.3.1, Page 3-6 -- Chemicals that are identified as a potential risk to biota yet have a low frequency of detection should not be deleted from the risk assessment until the Navy has verified that they do not constitute "hot spots". It is recommended that further information be provided here or a reference to specific sections within the Final RI Report be made to support deletion of these chemicals. If data do not support deletion, it is recommended that the Navy address this issue as appropriate.