



# Department of Toxic Substances Control

M60050.002379  
MCAS EL TORO  
SSIC #5090.3



Jesse R. Huff, Director  
5796 Corporate Avenue  
Cypress, California 90630

Gray Davis  
Governor

January 29, 1999

Winston H. Hickox  
Secretary for  
Environmental  
Protection

Mr. Joseph Joyce  
BRAC Environmental Coordinator  
U.S. Marine Corps Air Station - El Toro  
AC/S, Environmental (1AU), BRAC Building #899  
P. O. Box 95001  
Santa Ana, California 92709-5001

Dear Mr. Joyce:

## COMMENTS ON DRAFT RECORD OF DECISION (ROD) FOR OPERABLE UNIT (OU)-2B LANDFILL SITES 2 AND 17, MARINE CORPS AIR STATION (MCAS) EI TORO

The Department of Toxic Substances Control (DTSC) has completed the review of the above subject document dated November 1998. The draft ROD presents the selected remedial action for OU-2B, Landfill Sites 2 & 17 at MCAS El Toro. This letter is to provide comments on the draft ROD. This letter also provide comments on the Technical Memorandum for Natural Attenuation at Site 2, and Technical Memorandum Site 2 Compliance Well Installation which provide supporting documentation for the ROD.

DTSC comments are as follows:

1. Section 7.2.3 Monitoring and Inspections, Page 7-6 - The Draft ROD proposes monitored natural attenuation for two Volatile Organic Compounds (VOC) plumes at Site 2 without prior demonstration that it is occurring at the site. The Draft Technical Memorandum, U.S. Air Force Technical Protocol for Natural Attenuation at Site 2 Magazine Road Landfill, dated December 1998, did not provide conclusive evidence that natural attenuation is occurring. In fact, it recommends that long term monitoring be conducted to support natural attenuation. The Technical Memorandum (section 3.5) lists groundwater parameters that need to be measured to support natural attenuation. However, the Technical Memorandum does not recommend testing for dissolved hydrogen and methane because "they are difficult to collect and are not standard analyses in laboratories." DTSC disagrees with this justification. Monitored natural attenuation is a remedy and therefore must be evaluated, operated and monitored like other remedies. The Technical Memorandum does not provide a technical justification for not conducting the full suite of groundwater analyses to support natural attenuation. The BRAC Cleanup Team should meet to arrive at a solution for the VOC plumes.

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2. Section 7.3.1, Landfill Cap, first paragraph - The text regarding borrow source should be revised to confirm that the soil will be mixed prior to compaction to achieve the required permeability.
3. Section 7.3.1, Landfill Cap, Figure 7-1 - Consistent with the Feasibility Study (FS), the thickness of the cap should be 4 feet minimum. Revise the figure to show the cap thickness a minimum of 4 feet.
4. Section 7.3.1, Landfill Cap, second paragraph, on-site waste consolidation - Add a statement that the Navy will submit a work plan to the regulatory agencies for confirmation sampling of the consolidated areas after the waste have been removed. Also, the Navy will submit, to the regulatory agencies, the records of waste relocation, volumetric measurements, and the results of the confirmation sampling to show areas C1, C2, D2, B, & C have been cleaned, and information regarding the monitoring conducted to comply with South Coast Air Quality Management District (SCAQMD).
5. Figure 7-2, Site 2 Conceptual Grading and Modeling Plan - Please provide Cross-Section J-J' shown on the drawing.
6. Figure 7-2, Conceptual Grading and Modeling Plan - The Legend notes refers to Figure 4-3 for more details on Cross Section C-C'. Please provide the correct reference. Also provide correct reference to Cross Section E-E'.
7. Section 7.3.4, Monitoring and Inspection - Based on our review of the Technical Memorandum, Site 2 Compliance Well Installation, monitoring well 02NEW15 may be missing contaminants that are migrating above the well screen due to a local stratigraphic phenomena or fluctuating groundwater level occurring near the well. Geologic cross sections on Figure 3-1 show significantly different lithology at groundwater monitoring well 02NEW15 compared to the CPT borehole logs. Stratigraphic logs of the 16 CPT locations across the site show interbedded sands, silty sand and silt layer. At well 02NEW15, only fine to coarse-grained sand was noted during borehole logging. The fine-grain silt layers that were noted at all CPT locations were not logged during installation of monitoring well 02NEW15. The Technical Memorandum should evaluate whether these silty layers are missing at well 02NEW15, or not logged during drilling.

Monitoring well 02NEW15 is located approximately 30 feet from CPT 02CPT2A. Cross section B-B' on Figure 3-1 shows Hydropunch™ groundwater samples at 02CPT2A detected contaminants (benzene, chlorobenzene, 1,1-DCA, 1,2-DCE, PCE, vinyl Chloride) at the first sand layer beneath the water table at approximately 15 feet below ground surface. Groundwater sample collected at monitoring well 02NEW15 only detected chlorobenzene. The top of the well screen in monitoring well 02NEW15 is

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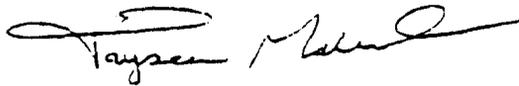
installed 25 feet below ground surface (9 feet below the groundwater table measured in July 1998). The Technical Memorandum reports that the groundwater level fluctuates significantly at Site 2. The unusual amount of rainfall in 1998 may have temporarily raised the groundwater level. If the water level measurements in Site 2 monitoring wells since July 1998 show a decreasing trend so that the water level at well 03NEW15 is at or below the upper well screen, well 02NEW15 would be sufficient. However, if the water level is not decreasing, it may be necessary to install another well screened at the water table to ensure early detection of contaminants downgradient from Site 2.

The Technical Memorandum should discuss the potential for stratigraphic controls such as faults, missing silt layers or changing water levels to affect groundwater flow and contaminant migration around monitoring well 02NEW15.

8. Section 9, Selected Remedy, page 9-1 - See comment # 1 regarding natural attenuation and monitoring the VOCs in the plumes at Site 2.
9. Section 9, Selected Remedy, page 9-2, fifth paragraph - The text should be clarified that monitoring results will be submitted within 90 days from the sampling event. Also, add SCAQMD to the list of agencies that will receive reports for landfill gas migration monitoring (see Appendix C of the FS).
10. Table 10-4, page 10-29 - Delete information regarding Sites 3 & 5 because this ROD covers Sites 2 & 17 only.

For additional comments on the document, please see the enclosed comments from Ms. Marsha Mingay, our Public Participation Specialist. If you have any questions, please call me at (714) 484-5418.

Sincerely,



Tayseer Mahmoud,  
Remedial Project Manager  
Office of Military Facilities  
Southern California Operations

Enclosure

cc: See next page

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cc: Mr. Glenn Kistner  
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cc: Mr. Andy Piszkin  
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Ms. Marsha Mingay  
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# Department of Toxic Substances Control



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 Secretary for  
 Environmental  
 Protection

## MEMORANDUM

TO: Mr. Tayseer Mahmoud  
 Remedial Project Manager

FROM: Ms. Marsha Mingay *mm*  
 Public Participation Specialist

DATE: January 11, 1999

SUBJECT: COMMENTS ON THE DRAFT RECORD OF DECISION, OPERABLE UNIT  
 2B -- LANDFILL SITES 2 AND 17, MARINE CORPS AIR STATION EL  
 TORO, CALIFORNIA

Thank you for the opportunity to review and comment on the above referenced document. Please note that my comments are limited to Section 3 of the document (entitled, "Highlights of Community Participation") and the Responsiveness Summary. The remainder of the document was not reviewed by Public Participation.

### SECTION 3

Page 3-1 Please delete the first sentence on this page as it can be read as an editorial comment versus a factual statement.

Third paragraph - It is not obvious why the information being presented is outside of the "community relations program". Please add sufficient information to clarify the statement or change the wording accordingly.

Section 3.1 - The last sentence talks about current activities therefore it should be placed in the paragraph which also addresses this issue; namely the second paragraph. (The first paragraph focused on past activities).

Page 3-2 to 4 Second paragraph under section 3.2 - Correct the wording to accurately describe a proposed plan. The following is proposed language, "Proposed plans are summaries of remedial alternatives proposed for a site or group of sites. The plan describes each of the alternatives, evaluates each alternative against nine criteria and identifies the preferred alternative. This document is issued to the public

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prior to the beginning of a public comment period ... and used to refine the remedial action. The final decision and response to comments (known as a "responsiveness summary") are presented in the record of decision."

Page 3-4 to 5 It is suggested to condense these paragraphs into one by eliminating the generic information.

## RESPONSIVENESS SUMMARY

### Introduction

Page 1 Should number "1A" be renumbered to "1" since it is a stand alone, undivided, comment?

Second paragraph - Clarify that the only comments omitted from this Responsiveness Summary were the comments from the Local Reuse Authority (LRA). The reader may interpret the current wording to mean that comments, other than the LRA's, were also omitted. The current wording may cause the reader to wonder why the Marine Corps treated some comments differently than others. (If more comments, other than the LRA's were omitted, then please provide DTSC with the rational of why this action was taken. Since some public comments about Site 3 and 5 are contained in this document, it would not seem appropriate to remove similar comments addressing the same sites.)

### Response to Written Comments

Page 1 The response in the first paragraph makes a conclusion but does not substantiate how the monolithic soil cap will reduce the amount of infiltration. It is assumed that bench testing or modeling was done to substantiate this conclusion. Please include information which supports the conclusion.

The draft Response to Comments wording could be improved by adding the following phrase (printed here in bold face font and underlined), "**It is important to note that** the remedial investigation (RI) of the landfill sites showed even under current (uncapped) conditions, there has been little, if any, impact to groundwater at any of the sites." Additionally, the sentence immediately following this information should be in a separate paragraph since it is a new topic.

Second paragraph, second to the last sentence - This sentence seems to be misplaced in that it does not naturally flow into the sentences surrounding it. It

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The sentence would fit better in the paragraph if it was the second sentence of the paragraph. Please correct the paragraph, or remove this sentence from the text.

Page 4      Comment number 3 - Mr. Bankuthy, Jr. states that the Irvine Ranch Water District (IRWD) has "facilities" within the work area which need to be maintained. The response merely thanks them for their "input". To fully address their issue, please either state that the Marine Corps is aware of the facilities and clarify who will maintain them; or request the IRWD to provide additional information regarding these facilities.

Page 5      First paragraph under Clean Closure - Add information which states why clean closure was determined to be "unnecessary" for Sites 2, 3 and 5. Additionally, the draft Response to Comments does not address Site 17. Please incorporate information, as appropriate, about Site 17.

First paragraph under Permanent Elimination of Waste Materials - It is not understood why this information is being presented since this issue was not mentioned in the comment. Please either relate the response to the comment or delete it from the text.

One portion of the comment seems to be focused on using a presumptive remedy which leaves unknown materials in place for a long period of time. It is suggested that the response address health issues. What is the threat now? What would be the threat if the material was excavated and removed?

Page 6      Characterization of Landfill Wastes ... - The response states that it was "assumed from the beginning that the landfill would be capped." Please include information which explains why an assumption was made prior to evaluation of all alternatives and consideration of public comment. Without this information, the resources used to evaluate the final remediation technology, and the efforts made to educate and receive public comment, sounds superfluous.

Characterization of Landfill Wastes ... - The sixth sentence states, "The landfill cap will provide a barrier to ...". To assist the reader, a parenthetical reference to response number one would provide them with additional information regarding the cap.

Characterization of Landfill Wastes ... - The tenth sentence states, "Such municipal landfills are addressed using a presumptive remedy approach." It is suggested that a more descriptive word be used in lieu of "addressed" (e.g., remediated, cleaned up).

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At the very bottom of response to 4A, please include a new paragraph that states, "The future costs for Sites 3 and 5 will be addressed in a Record of Decision for these sites."

Response to 4B, second paragraph - To avoid a possible misconception by the reader, state up-front, in a brief sentence or two, the risk posed and conclusions reached. Additionally, the change would help to eliminate the possible conclusion that since "total and dissolved metals were detected" it must be harmful to public health or the environment.

Page 8

Response to 4B - At the end of this response, please state that comments on Site 3 and 5 will be addressed in a future Record of Decision for these sites.

Page 9

It would be useful to add in the response that since Sites 2 and 17 will be transferred to Department of the Interior, they will not effect the El Toro Reuse Planning Authority's Millennium Plan. This information would help the uninformed reader of this fact.

Page 12

Response to 6B - Same comment as stated for Page 9 (see above comment). Additionally, please ensure that the commentator's statement, "A subsurface evaluation may better define the actual volume and extent of the buried wastes." does not address Sites 2 and 17. If it could address these sites, it is strongly suggested that the Marine Corps provide a written response to this statement.

Page 13

Response to 6F - The response states, "... modeling ... cap under a wide variation in the amount of annual rainfall." Please provide the parameters that were studied (i.e., explain "wide variation").

Page 16

Response to 7 - Since the commentator did not specifically mention "Site 24", the response could be improved by creating an introductory sentence which links the statements made by the commentator and "Site 24" (e.g., "It is assumed that the comment about 'toxic substances from the El Toro base are seeping into our water table' refers to contamination in groundwater caused by Site 24. Site 24 is ..."). It is also suggested that the second paragraph be reworded to be more straightforward using lay person's language (e.g., "According to ... the landfills do not contain material which readily migrates. This is supported by data which shows ... Although the landfill shows little, if any, evidence of impact from the landfills, regulations require a remediation to restrict water from entering the landfill. Based upon the characteristics of the landfill's material, a monolithic soil cap will meet the regulatory standard and be protective of public health and the environment.")

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Page 20 to 23 Response 10B through 10O- These comments could also be addressing Sites 2 and 17. Please reevaluate your response. If there is a possibility that the comments do address Sites 2 and 17, please provide responses.

Response to Comments Received at the Public Meeting

Page 4 Response to 3 -The response omits the fact that institutional controls are required when waste is left in place. This is the fundamental basis for institutional controls versus regulatory agencies who just enforce the laws and regulations. Please reword the response.

Page 7 Response to 5B - The last sentence states, "The positive response from the public at previous meetings with this same format attests to the effectiveness of the meeting format." Since a portion of the community is dissatisfied with the public meeting format, it would be advisable to substantiate the claim that DON has received a "positive response".

Page 8 Response to 5B - The response leads the reader to believe that all activities listed in bullets are mandated. This is not correct since some of the activities listed went beyond the legal requirement (e.g., a public notice in two newspapers versus the requirement for only one). Please correct the wording to more accurately describe the listed activities.

Page 9 Response to 6 - This comment could also be addressing Sites 2 and 17. Please reevaluate your response. If there is a possibility that the comment does address Sites 2 and 17, please provide a response.

Page 10 Response to 7 - The response refers to Comment 1A which is incorrect since this response does not address clean closure. Response 4A (from Response to Written Comments) does address clean closure. Please review and make the necessary changes.

The commentator alludes to the issue of synergism ("... adding to the bulk of what already exists in those two landfills can compound the problem ..."). Since this issue has not been addressed, please provide a response.

The commentator is also concerned with overflow and run off. Please provide a response to this comment.

Page 14 Response to 9 - To clarify that the response only refers to Site 2 and 17, please add "for Sites 2 and 17" at the end of the sentence.

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Responses to the U.S. Department of the Interior

Page 1 to 7 To remain with the established format, please include numbers for each comment. This system allows for easy reference and improves future communication involving this document.

Page 2 Partial paragraph at top of page - The information could be clarified by adding a sentence which states a conclusion. The following (printed in bold font) is suggested, "... and in surface water collected from the seep. **Since data indicates that up gradient water contains similar chemicals at similar levels, Site 2 has not impacted the seep water.**"

Second full paragraph on page, last sentence - This sentence states, "There was no attempt to collect soil samples at the maximum depth of burrowing activity ... Because DON wanted to avoid ... disturbance of landfill material." This statement, although true, may sound illogical to the average reader. The average reader will understand that due to the burrowing animal, the landfill material was already "disturbed". One question they may ask is, "How much more disturbance would DON do by collecting a few inches of soil?" It is suggested that this response be reviewed and if appropriate, reworded.

The next two paragraphs appear to be outside the comment and therefore could be deleted. However, if the decision is made to keep them in the document, please note the following. The paragraph states, in part, "Collecting samples only at the surface was considered acceptable because the primary exposure to ecological receptors occurs on the surface where exposed wastes occur." If the landfill surface has exposed wastes, the average reader will assume that a burrowing animal, while in the burrow, is surrounded by exposed wastes. Therefore, they may assume that the primary exposure to the burrowing animal is their sleeping quarters. Similar to my last comment, they will not understand your justification. Please review this and make appropriate changes to text if possible.

The comment seems to be asking if burrowing species are present on the landfill and if they were considered in the sampling conducted. These two questions need to have responses.

(As a side note, since the DOI will receive title to this land, and since they presumably have experts in their department about this type of issue, were they consulted during the investigation? If so, a more complete response would be to site the meeting and decisions made between DON and DOI.)

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Page 3 Last paragraph on the page - Please spell out the acronym, "MCP".  
Additionally, the text does not clearly identify the connection between the hazard index for the American Robin and MCP. Additional information is required to establish this relationship. Information should also be added that clarifies where the MCP is located. Is it one of the chemicals in the landfill? Is it from surrounding agricultural activities?

Page 4 Top partial paragraph - The sentence states, "... gnatcatchers .. Do not appear to be affected by chemicals or investigative activities". Please add supporting data.

Page 5 to 6 Bottom partial paragraph on page 5 and top of page 6 - The information in this paragraph is not requested by the commentator. A suggestion is made to either move it to the end of this response or delete the paragraph.

Page 6 First paragraph, "... minimizes short-term risks due to exposure to landfill contaminants" - Provide additional information to assist the reader in understanding how the native soil cap minimizes the short term risks.

Second paragraph, second sentence - Clarify which alternative "this alternative" refers to.

Second paragraph, fourth sentence - The sentence is missing the word "to". Please rewrite as follows, "more costly to repair".

Page 7 First paragraph, third sentence - To improve clarity, please place commas around "should damage occur".

Second paragraph - State that the comment will be completely evaluated and responded to in the Record of Decision for Sites 3 and 5.

The last comment states that the DOI has only reviewed the Proposed Plan and that the supporting documents will be reviewed during the pre-acquisition process. Will the DON accept comments on the supporting documentation during the pre-acquisition period? If not, it is strongly suggested that DON contact the DOI to inform them that the comment period on the supporting documents was already held. It is important to note that the Proposed Plan did state that the public comment period for the Proposed Plan also included the supporting documents. It is suggested that DON work toward a mutual resolution with DOI on any issues/concerns they may have regarding the supporting documents (e.g., Remedial Investigation, Feasibility Study). Please state in the Response to Comments how this issue will be addressed.