RESPONSE TO COMMENTS
DRAFT FINAL RECORD OF DECISION
OPERABLE UNIT 2B LANDFILL SITES 2 AND 17
MCAS EL TORO, CALIFORNIA

October 1999

Originator: Glenn Kistner, RPM U.S. EPA **To:** Joseph Joyce, BRAC Environmental Coordinator MCAS El Toro **Date:** 7 July 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
GENERAL COMMENTS **The United States Environmental Protection Agency (EPA) has reviewed the document referenced above and finds that most of the document is satisfactory with only a few changes needed for EPA concurrence. Please note that comments from EPA attorney Thelma Estrada are also provided in this letter.** **Comments:**	***RESPONSES TO GENERAL COMMENTS***
1. Please delete Dan Opalski's name from the concurrence page and insert "Acting Chief" in the place of his name.	RESPONSE 1: Mr. Opalski's name has been deleted and "Acting Chief" has been inserted as requested.
2. The fifth bullet item ("Additional monitoring necessary"...) on page 2 of the "Declaration" is redundant and unnecessary and should therefore be deleted.	RESPONSE 2: The bullet has been deleted as requested. (Please note that the information addressed by this comment is contained in the sixth, not the fifth, bullet).
3. Please revise the bullet items on page 9-1 of the "Selected Remedy" to be more consistent with the bullet items in the "Declaration"; e.g., fencings, "signs", with locked gates"..., MOU between DON and USFWS, etc.	RESPONSE 3: The bullet items in Section 9 have been revised to be consistent with the bullet items in the Declaration.
Comments from Thelma Estrada:	
1. P. 2: Delete the sixth bullet since this information is not relevant to this ROD.	RESPONSE 1: The sixth bullet has been deleted as requested.
2. P. 10-2 to 10-6: Chemical-Specific ARARs – since we took out the groundwater remedy for Site 2 in this ROD, there really are no chemical-specific ARARs. The soil and air chemical-specific ARARs are more appropriately classified as action-specific ARARs.	RESPONSE 2: The chemical-specific ARARs for groundwater have been deleted as requested. DON understands that the soil and air ARARs shown in Table 10-1 can be addressed under either as chemical-specific or as action-specific ARARs, but prefers to leave these in the chemical-specific table to be consistent with other program documents.
3. P. 10-8: Second Paragraph – the explanation here as to why the	RESPONSE 3: An explanation of why the land closure and postclosure

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landfill closure and postclosure requirements are relevant and appropriate instead of applicable is good. A similar explanation should go in the ARARs Table, in a footnote.	requirements are relevant and appropriate has been added to Table 10-4 as requested.
ARARs Tables: **General Comment: the pages for these tables should be numbered.**	**RESPONSE:** The ARARs tables are numbered consecutively with the text of Section 10 (e.g., page 10-7, 10-8, etc). The page numbers are in the bottom right hand corner of the table when held in the portrait position.
Table 10-1: *** Third Row ("TCLP regulatory levels....") – this should be stated in a requirement form, e.g., "soils to be used as cover for LF sites will have to meet requirements based on TCLP...." Again, per my comments above, these "chemical-specific ARARs" are more appropriate under "action-specific ARARs."**	**RESPONSE:** The narrative under the "Action/Requirements" column associated with Title 22 CCR 66261.21, 22 CCR 66261.23, 22 CCR 66261.24(a)(1), and 22 CCR 66261.100 has been rewritten in requirement form. As noted in the response to Comment 1, some requirements shown in Table 10-1 can be classified as either chemical-specific or action-specific ARARs. DON prefers to leave these ARARs in the chemical-specific table to be consistent with other program documents.
*** The requirements pertaining to beneficial uses, water quality objectives, listed under "State and Regional Water Quality Control Board" should be deleted. These requirements are only relevant in a groundwater remedial action. The requirement that the leachate from the LFs shall not cause exceedance of the water quality objectives for the groundwater beneath the LFs can be adressed as part of the LF closure/postclosure requirements, specifically as part of the groundwater monitoring requirements.**	**RESPONSE:** The beneficial use requirements have been deleted as requested.
*** Footnotes for Table 10-1 – I do not understand what information we want to convey in the footnote that reads "Chemical-specific concentrations used for FS evaluation...."**	**RESPONSE:** This footnote was inadvertently carried into the ROD from an ARARs table in the feasibility study. It is not appropriate for the ROD and has been deleted.
Table 10-2:	
*** The requirements listed under National Archaeological and Historical Preservation Act, Endangered Species Act, Migratory Bird Treaty Act, need to be stated in complete sentences that clearly state what the**	**RESPONSE:** The requirements have been rewritten as requested.

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requirements are. For instance, the statement "General protection and conservation of fish and wildlife resources" is not a sentence.	
Table 10-3:	
*** The requirement pertaining to beneficial uses (sentence beginning with "Authorizes the SWRCB and RWQCB boards to establish....") should be deleted for the same reason stated above, i.e., there is no groundwater remedial action in this ROD.**	RESPONSE: The requirement pertaining to beneficial uses has been deleted as suggested.
*** The requirement that reads "A discharger shall establish a corrective action...." Should be changed to the following: "A discharger shall remediate releases from the waste management unit that affect water quality." Refer to my comment on the previous draft regarding references to corrective action.**	RESPONSE: The sentence has been rewritten as requested. DON apologizes for your need to comment twice on this issue.
*** The statement "excavation of landfill sites" needs to be restated as a requirement.**	RESPONSE: The statement has been restated as a requirement.
*** The requirement under 27 CCR 21160(b)("Requires gas monitoring and control be conducted during the closure and postclosure maintenance period.") is listed as applicable. Why is this not relevant and appropriate, like the other requirements for 27 CCR 21100 listed above it?**	RESPONSE: The requirement under 27 CCR 21160(b) has been changed to "relevant and appropriate."
Table 10-4:	
*** While it is explained in the text, there should be a footnote in this table explaining the basis for the "controlling" determination.**	RESPONSE: A footnote has been added to Table 10-4 to explain the basis for determining which regulation is the "controlling" ARAR.
*** There is a typographical error in the requirement listed as "Postclosure Care Period." The correct regulatory citation is 66264.117, instead of 6264.117.**	RESPONSE: The typographical error has been corrected. Thank you for your comments.

RESPONSE TO COMMENTS
DRAFT FINAL RECORD OF DECISION
OU-2B LANDFILL SITES 2 AND 17
MCAS EL TORO, CALIFORNIA

Originator: Tayseer Mahmoud, RPM DTSC **To:** Joseph Joyce, BRAC Environmental Coordinator MCAS El Toro **Date:** 15 July 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
GENERAL COMMENTS	***RESPONSES TO GENERAL COMMENTS***
The Department of Toxic Substances Control (DTSC) has completed the review of the above subject document dated June 1999. The Draft Final ROD presents the selected remedial action for soil at OU-2B, Landfill Sites 2 & 17 at MCAS El Toro. The remedial action for groundwater at Site 2 will be selected by means of a separate ROD or by an amendment to the Site 2 & 17 ROD. DTSC comments are as follows:	
1. Section 7.2.3, Monitoring and Inspections – The Feasibility Study (FS) and the Draft ROD proposed groundwater sampling for radionuclides at Site 2 semiannually for 5 years, then annually for 25 years. The Draft Final ROD proposes four rounds of sampling only. At a minimum, the frequency of sampling should follow the requirements outlined in the enclosed July 15, 1999 letter from California Department of Health Services (DHS). Please note that Figure 5-7 shows elevated levels of radionuclides in storm water at Site 2. Information regarding storm water was not evaluated in the Technical Memorandum for Radionuclides because the Memorandum evaluated groundwater only. The Department of Navy (DON) may request changes in the monitoring frequency if such changes could be justified. **In addition, please revise this section to add DHS to the list of regulatory agencies who will receive monitoring results. Any future correspondences that relate to radiation in the landfills should also be sent directly to DHS.**	**RESPONSE 1:** Section 7.2.3 and Table 9-3 have been revised to note that groundwater at Site 2 will be analyzed for gross alpha and gross beta semiannually for 5 years and annually for 25 years thereafter. The remaining radionuclides (radium-226, radium-228, total radium, total uranium) will be analyzed for during four rounds of sampling. An evaluation will then be performed using methodology provided by DHS to determine if radionuclides are present at Site 2 at concentrations that represent ambient conditions at this site. If the evaluation of sampling data shows that the radionuclides are present at concentrations that represent ambient conditions, only gross alpha and gross beta would continue to be analyzed for. If the evaluation of sampling data shows that the concentrations do not represent ambient conditions, sampling of radium-226, radium-228, total radium, and total uranium would continue at a frequency that would be determined based on the sampling results and agreed upon by the FFA signatories. DHS has been added to the list of agencies who will receive monitoring results. DHS will also be listed as recipient of future correspondence that relates to radiation in the landfills.
2. Section 7.3.1, Landfill Cap, page 7-13 – According to the ROD, excavated soil from OU-3A Sites 8, 11, and 12 may be recycled into Site 2 and/or 17 landfills. Before DTSC can concur with this proposal, the DON must provide responses to all public comments received during the public comment period on the Proposed Plan for	**RESPONSE 2:** The DON has made the decision to dispose of contaminated soil that is excavated from Sites 8, 11, and 12 off-Station. The Draft Final ROD(s) for Sites 8, 11, and 12 will be revised to reflect this decision. In addition, the Site 2 and 17 ROD will be revised to delete all references to the

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OU-3A sites. DTSC received copies of U.S. Fish and Wildlife Services comments dated June 14, 1999, and of the Local Redevelopment Agency's comments dated June 7, 1999. The HRA proposes further investigation/radiological survey of Site 8. Please evaluate the potential impacts on human health, environment, and ecology if radioactive contamination is found at Site 8 and submit the information in the revised ROD. In addition, Table 5-1 of the HRA mentions that it is possible that radium paint room waste could have been disposed of into the industrial wastewater system through an independent sewer system installed to collect metal plating waste. Therefore, there is a potential for radiological contamination at Site 12, Sludge Drying Beds. Please address the concern regarding radioactivity at Site 12.	soil from Sites 8, 11, and 12 being recycled at the landfills. The remainder of this comment deals with Sites 8 and 12. Concerns with radiological contamination at these sites will be addressed in the response to comments on the Draft HRA.
3. Table 9-3, Postclosure Monitoring for Site 2 – Please make corrections to this table based on Comment #1 (above) regarding radionuclides.	RESPONSE 3: Table 9-3 has been revised as noted in the response to Comment 1.
DHS comments on the Technical Memorandum Radionuclides in Groundwater Marine Corps Air Station El Toro, California, June 1998. (These comments were submitted as an enclosure to Mr. Mahmoud's comments on the Draft Final ROD and are reproduced below for completeness of response.)	
Attached are the previous DHS comments made on the Technical Memorandum, dated June 1998. At that time we requested that the groundwater be analyzed for gross alpha-beta using EPA method 900.0 and for gamma emitters using EPA method 901.1. (See General Comment 4, a-d, on how to further analyze the samples that exceed 5 pCi/L for gross alpha). If the samples exceed 50 pCi/L gross beta, than further analysis should be performed or a comparison to the gamma analysis may be made by identifying gamma emitters that also emit beta (e.g., potassium-40).	RESPONSE: The DHS analytical methods are presented in Table 9-3. The DHS protocol was used in the Draft Final CERCLA Groundwater Monitoring Plan.
Based on the HRA dated May 1999, it appears that Landfill 17 was not	RESPONSE: Table 9-4 has been revised to indicate that four rounds of

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used for disposal of radium dials or radium painting equipment. If Landfill Site 17 was not opened until the 1980s it probably does not require monitoring for radionuclides. However, four seasonal rounds to analyze groundwater samples at Landfill Site 17 for radionuclides would provide useful information regarding background data for comparison to the other landfills.	groundwater monitoring will be conducted to analyze for gross alpha and gross beta at Site 17.
Groundwater from Landfill Sites 2, 3, and 5 should continue to be monitored for gross alpha-beta and gamma emitters (all gamma emitters should be reported in pCi/L along with the lower limit of detection (LLD). If the gross alpha or gross beta exceed 5 pCi/L or 50 pCi/L respectively, then the individual samples should be further analyzed as stated in General Comment 4, a-e from the attached DHS review dated August 19, 1998.	**RESPONSE:** Groundwater at Sites 2, 3, and 5 is currently being monitored per DHS protocol as specified in the Draft Final CERCLA Groundwater Monitoring Plan.
The frequency of sampling should remain quarterly until enough data has been collected to determine trends in the data. At a minimum, a full year's seasonal (i.e., quarterly) data should be collected and analyzed fully as stated above. The DON may request to reduce or discontinue monitoring if such changes can be justified.	**RESPONSE:** Groundwater at Sites 2, 3, and 5 was sampled in October/November 1998, January 1999, April/May 1999, and July/August 1999, analyzed in accordance with DHS protocol, and is currently being evaluated to determine if the radiological analytical data for these sites reflects ambient conditions.

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MCAS EL TORO, CALIFORNIA

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Originator: Patricia Hannon RWQCB **To:** Andy Piszkin, RPM MCAS El Toro **Date:** 15 July 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
GENERAL COMMENTS	***RESPONSES TO GENERAL COMMENTS***
1. Bottom of page 7-6 and top of page 7-7: **"In addition, four rounds of groundwater samples would be collected and analyzed for radionuclides at Site 2 and for sulfate and sulfide at Site 2 and Site 17 to develop baseline data concerning sulfide concentrations in groundwater and possible sulfate reduction beneath the landfill."** **Please explain if the Navy will be using this data for developing baseline data for radionuclides too, and explain what the Navy will do after they have collected this information.**	**RESPONSE 1:** The text at the bottom of page 7-6 and top of page 7-7 has been changed as follows to address this comment. Original text: In addition, four rounds of groundwater samples would be collected and analyzed for radionuclides at Site 2 and for sulfate and sulfide and Sites 2 and 17 to develop baseline data concerning sulfide concentrations in groundwater and possible sulfate reduction beneath the landfill. Revised text: In addition, four rounds of groundwater samples would be collected and analyzed for radionuclides (i.e., total radium, total uranium, radium-226, and radium-228) at Site 2 and for gross alpha, gross beta, sulfate, and sulfide and Sites 2 and 17. The purpose of this monitoring is to develop baseline data concerning sulfide and radionuclide concentrations in groundwater, evaluate whether the radionuclide concentrations are due to naturally occurring or anthropogenic sources, and evaluate possible sulfate reduction beneath the landfill. Once the four rounds of sampling are complete, DON will evaluate the data for total radium, total uranium, radium-226, radium-226, sulfate, and sulfide at Site 2 and gross alpha, gross beta, sulfate, and sulfide at Site 17 and make recommendations to U.S. EPA, DTSC, and the RWQCB to cease or to continue to monitor for these analytes. If continued monitoring is recommended, DON will recommend a monitoring frequency for each analyte. Because gross alpha has exceeded the MCLs at Site 2, the DON will continue to monitor gross alpha and

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	gross beta at Site 2 semiannually for 5 years and annually for 25 years as an indicator of possible radioisotope contamination at that site.

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MCAS EL TORO, CALIFORNIA

October 1999

Originator: Courtney C. Wiercioch, Manager MCAS El Toro Master Development Program **To:** Dean Gould BRAC Environmental Coordinator **Date:** July 16, 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
GENERAL COMMENTS **We appreciate the opportunity to comment on the Final Draft Record of Decision (Draft ROD) for Landfill Sites 2 and 17 located at the Marine Corps Air Station (MCAS) El Toro. Our preliminary comments are set forth in two draft memoranda, copies of which are attached.**	***RESPONSES TO GENERAL COMMENTS*** **RESPONSE:** Responses to the LRA's comments are found on the following pages.
Throughout the initial stages of the remedy selection process for Sites 2 and 17, the Department of Navy (DON) contemplated transferring ownership and control of approximately 1,000 acres of MCAS El Toro property that included these sites to the Department of the Interior (DOI) for use as a habitat reserve. We understand that DOI is reconsidering this proposal and that DON may consider alternative conveyances of this property to the Federal Aviation Administration (FAA). The precise details of the transfer of ownership and the operation and use of such property are the subject of ongoing discussions by and among DON, DOI, and FAA.	
Ms. Polin Modanlou of my staff discussed this issue with you and Joseph Joyce in a telephone conversation on July 14, 1999. In that conversation, DON agreed to meet with us in late July or early August 1999 to discuss (1) new developments concerning transfer of the MCAS El Toro property, and (2) our comments on the Draft ROD for Sites 2 and 17.	
In anticipation of our upcoming meeting and in accordance with your July 14 discussion with Ms. Modanlou, enclosed are draft comments on the Draft ROD for Sites 2 and 17. We recognize that some of the questions and comments set forth in the enclosed memoranda may need to be refined in the near future in light of information developed in the course of other investigation and remediation projects being conducted by DON at MCAS El Toro, and/or additional information provided by DON at our meeting.	
We look forward to meeting with you. If there are any questions, please feel free to call Polin Modanlou at (714) 834-3156.	

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Originator: Bert Palmer, Ph.D., P.E. GeoSyntec Consultants **To:** Polin Modanlou MCAS El Toro Local Redevelopment Agency **Date:** 16 July 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
GENERAL COMMENTS **GeoSyntec Consultants (GeoSyntec) performed a review of the Draft Final Record of Decision (Draft ROD) issued by Department of Navy / United States Marines Corps (DON/USMC) in June 1999 for Sites 2 and 17. While the Draft ROD addresses in greater detail some of the concerns noted by the Local Redevelopment Agency (LRA) regarding the proposed landfill remedy, a number of outstanding technical issues have not been addressed or resolved.**	***RESPONSES TO GENERAL COMMENTS*** **RESPONSE:** DON will respond to individual comments on the pages that follow. However, most of the LRA's comments appear to be related to design issues, and it should be noted that the Record of Decision (ROD) is, by definition, a decision document that presents DON's remedial alternative selection. The ROD is not a detailed design document. Detailed design will be initiated once the FFA signatories have concurred on the remedy selected in the ROD. While DON is pleased to address the LRA's comments, DON intends to resolve detailed design issues in the remedial design phase.
As a general matter, the description of Alternative 3 (the proposed remedy) presented by DON/USMC in the Draft ROD is not sufficiently detailed. DON/USMC proposes to identify many important details of the proposed remedy following finalization of the ROD (i.e., during the remedial design stage of the remediation process) (see Draft ROD at 9-2). GeoSyntec recommends that DON/USMC prepare design details, such as details regarding the cover construction and monitoring of the cover performance, in the immediate near future, prior to finalization of the ROD. Providing such information to interested parties would ensure a full and complete review of the proposed remedy, and would minimize the likelihood of delays or disputes in the implementation of the final remedy.	**RESPONSE:** As noted in the previous response, DON will address design details at the remedial design phase of the CERCLA process. The selection of the remedy is not considered final until the ROD is signed. Resolving detailed design issues at the ROD stage, when the remedy selection is uncertain, would cause delays in the finalization of this document and is likely to increase, rather than decrease, the overall time to design and implement the remedy for the landfills. DON will be pleased to receive comments on the detailed design from the LRA at the remedial design phase of this project.
In addition, a number of technical issues are presented in this memorandum and have been organized in the following sections: **Historical Radiological Assessment Issues** **Cover Design Issues** **Cover Cost and Performance Issues** **Gas Control Issues**	

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Groundwater Quality and Remediation Issues **Landfill Monitoring Issues**	
HISTORICAL RADIOLOGICAL ASSESSMENT ISSUES **In May 1999, DON/USMC issued a document titled "Draft Historical Radiological Assessment Marine Corps Air Station, El Toro" (Draft HRA) prepared by Supervisor of Shipbuilding, Portsmouth, Virginia, Environmental Detachment, Vallejo, California for Naval Sea Systems Command Detachment, Radiological Affairs Support Office and Naval Facilities Engineering Commend, Southwest Division. The Draft HRA identifies areas at Marine Corps Air Station, (MCAS) El Toro potentially impacted by radiological materials. By letter dated June 21, 1999, the LRA submitted to DON/USMC comments and questions prepared by GeoSyntec concerning the Draft HRA. These comments are incorporated by reference in this memorandum. To date, the LRA has not received any response from DON/USMC to the comments and concerns regarding the Draft HRA. GeoSyntec recommends that DON/USMC address the June 21, 1999 submittal, and the issues set forth below, prior to finalizing the Draft ROD.**	**RESPONSE:** DON is preparing a response to the LRA's comments on the Draft HRA as contained in the June 21, 1999 letter. The response will be transmitted to the LRA under separate cover. In the meantime, DON has revised several sections of the Draft Final ROD to acknowledge the HRA, memorialize DON's commitment to perform a radiological survey of Sites 2 and 17, and to address the potential impacts on the selected remedy for Sites 2 and 17. Specifically, DON has added the following discussion to Section 2: For 1998 through 1999, the DON conducted a historical radiological assessment (HRA) of MCAS El Toro. The assessment was performed as part of the base closure process for the release of the Station for reuse. A draft HRA report summarizing the results of the assessment was issued in May 1999. A new subsection was added, Section 5.6, to summarize the results of the Draft HRA and address action DON plans to take as a result. The subsection is approximately 1 page long and is not reproduced in this response. Section 9 contains DON's commitment to perform a radiological survey of Sites 2 and 17 and evaluate the impact of the results on the selected remedy prior to implementing remediation action at the sites. The following text has been added to Section 5.4: Based on comments received on the Draft HRA, the DON has decided to perform a radiological survey of Sites 2 and 17. Based on survey results, radiological sampling may also be required. The DON intends to start remedial design of the landfill cap for Sites 2

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	and 17 prior to completion of the radiological survey. However, remedial action (e.g., construction of the landfill cap) will not take place until the survey/sampling is complete and the data have been evaluated to determine potential impact on the remedial design. Should the evaluation show that the selected remedy needs to be modified to address radiological contamination, the modification will be implemented by means of a ROD amendment, an Explanation of Significant Differences, or by documentation in the post decision file, depending upon the extent of the modification required.
The authors of the Draft HRA note that radioactive materials may have been discarded at MCAS El Toro (see Draft HRA at 17). Nonetheless, the authors of the Draft HRA conclude that it is not likely that the intentional disposal of general radioactive materials (G-RAM) in MCAS El Toro landfills occurred, and that the disposal of non-permitted G-RAM at Sites 2 and 17 is unlikely due to the time periods in which Sites 2 and 17 were used (see Draft HRA at 55). The documentation in support of these conclusions, however, appears limited. In addition, the authors of the draft HRA do not address scenarios in which permitted G-RAM may have been disposed of in Sites 2 and 17. Nor do the authors address in any detail the possible disposal of equipment and other objects historically coated with paints and other coatings containing radioactive materials. Similarly, the authors do not address in detail various analytical data and analyses indicating the presence of radionuclides in soil and groundwater at and in the vicinity of Sites 2 and 17 (see Draft ROD at Section 5).	<u>RESPONSE</u>: The draft HRA concludes that disposal of radioactive materials at Sites 2 and 17 is unlikely given the dates of operation of these landfills. However, as noted in response to the previous comment, DON will conduct a radiological survey of Sites 2 and 17 and will evaluate the impact of the survey results on the selected remedy for these sites. Should the evaluation show that a change to the remedy is warranted, DON will make this change using the appropriate vehicle (e.g., ROD amendment, Explanation of Significant Differences) depending upon the extent of the modification required. The remainder of this comment addresses the Draft HRA. Responses to specific comments on the Draft HRA will be transmitted to the LRA under separate cover.
In light of these findings, one may conservatively conclude, absent additional information or data, that radioactive materials may have been disposed of in Sites 2 and 17. This conclusion raises a number of questions and concerns, including the following, that should be addressed by DON/USMC prior to finalizing the Draft ROD: **Results of the personnel interview conducted in 1994 are presented on**	<u>RESPONSE</u>: Please see the response to the previous comment. The draft

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page 18 of the Draft HRA. The result states in pertinent part: *"Although there was no direct knowledge of radioactive material disposed of into any landfills, interviewees indicated that it is possible that equipment painted with radium paint could have been disposed of into the landfills by the marines."* Based on available information, does DON/USMC believe that radioactive materials are present in Sites 2 and/or 17? Has the proposed remedy for Sites 2 and 17 been designed based upon the assumption that radioactive materials have been disposed of in these sites? If not, why not?	HRA concludes that it is not likely that radioactive materials were disposed at Sites 2 and 17 because of the dates when these sites were active. However, DON has decided to perform a radiological survey of these sites and evaluate the impact of the results on the selected remedy for the sites. The current remedy for Sites 2 and 17 is not based upon the assumption that radioactive materials were disposed of at the sites, nor DON does consider it appropriate to modify the remedy in any way until the results of the survey are known and evaluated.
The authors of the Draft HRA recommend further radiological investigations at MCAS El Toro. Does DON/USMC intend to conduct or authorize such investigations? If so, will the investigations include Sites 2 and 17? If so, on what schedule will the investigations be undertaken? Do they confirm the findings presented in the Draft HRA?	**RESPONSE:** After the HRA is completed, DON intends to conduct further radiological investigations as recommended in the HRA. As noted in a previous response, these investigations will include Sites 2 and 17. DON is currently making arrangements to conduct the investigations, and a project schedule will be forwarded to the LRA as soon as it is established.
Should additional investigations indicate that radioactive materials are present at Sites 2 and/or 17, what would be the impact of the presence of these radioactive materials on the remedy selected by DON/USMC for Sites 2 and 17 on the proposed post-remediation reuse of these sites?	**RESPONSE:** DON will evaluate any potential impact on the remedy or on the post-remediation reuse once the results of the radiological investigation are known.
The Draft HRA addresses groundwater pathways. Has DON/USMC completed modeling of the transport of radioactive materials and contaminants from the landfills to the groundwater? Does DON/USMC have any information or expect to receive any information about the ability of the soils beneath the landfills to attenuate or impede the migration of radioactive materials and contaminants from the landfills to the groundwater?	**RESPONSE:** DON has not conducted specific site studies to evaluate the transport of radionuclides through the soils underlying the landfills because it has not been established that there has been a release of radioactive materials at these sites. DON will evaluate the need for such modeling once the radiological survey is complete. Elevated concentrations of gross alpha are present at Site 2. However, the presence of radionuclides in groundwater does not in itself indicate contamination because there are also natural sources of radiation in the environment. Groundwater monitoring is currently being performed to evluate whether the concentrations of gross alpha present in groundwater at Site 2

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	derive from natural or man-made sources. A discussion of this issue has been added to the ROD.
The Draft HRA includes a description of possible radioactive constituents that may be in the landfills. Does DON/USMC have any documentation of the period over which these constituents may remain active within the landfill. Has DON/USMC given consideration to the decay (daughter/progeny) products and their impact, if any, on the integrity and performance of the remediated landfills (as proposed by DON/USMC)?	**RESPONSE:** DON uses models recommended by NRC and EPA to ascertain dose from residual radioactivity that include exposure from both the parent radionuclide and its progeny. These issues will be further addressed when the results of the radiological survey of Sites 2 and 17 are known.
U.S. Nuclear Regulatory Commission procedures for closing a site at which there may be radioactive constituents includes a requirement for a radiological performance assessment. Has DON/USMC conducted such a performance assessment at Sites 2 and 17, or is one planned for Sites 2 and 17? If so, what is the schedule for the completion of such a performance assessment?	**RESPONSE:** The need for a radiological performance assessment will be evaluated once the radiological survey results are known.
As noted above, GeoSyntec recommends, at a minimum, that the Draft ROD not be finalized until DON/USMC responds to these and other comments regarding the Draft HRA.	**RESPONSE:** The DON has discussed this issue with the regulatory agency members of the BCT. They have agreed that the ROD may be finalized prior to completion of the radiological survey of Sites 2 and 17 provided that DON completes the survey and evaluates potential impact on the remedy prior to implementation of the remedial design. Should the evaluation show that it is necessary to modify the design of the landfill remedy, the ROD will be amended accordingly.

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COVER DESIGN ISSUES **DON/USMC proposes in the Draft ROD to use the contaminated soil excavated from Sites 8, 11, and 12 as foundation material for the landfill caps at Sites 2 and 17 (see Draft ROD at 7-13). This contaminated soil is not considered hazardous but nonetheless exceed action levels established for Sites 8, 11, and 12. GeoSyntec is not aware that use of contaminated soil from Sites 8, 11, and 12 as foundation material for the cover of Sites 2 and 17 was considered in the Sites 2 and 17 Feasibility Studies and Proposed Plan. While use of contaminated soil as part of the foundation material for the cover of Sites 2 and 17 was mentioned in the Site 2 and 17 Draft ROD, no technical analysis appears to have been provided in support of this proposal.**	**RESPONSE:** DON has made the decision not to use contaminated soil from Sites 8, 11, and 12 for foundation material at Sites 2 and 17. Contaminated soil which is removed from these sites will be disposed of off-Station, at an appropriate disposal facility .
By letter dated June 7, 1999, the LRA submitted to DON/USMC comments prepared by GeoSyntec concerning the Proposed Plan for Sites 8, 11, and 12. Included in these comments were a number of questions and concerns regarding the use of contaminated soils as foundation material at Sites 2 and 17 (these comments are incorporated by reference into this draft memorandum). GeoSyntec recommends that DON/USMC address the June 7, 1999 submittal, and the additional concerns and issues set forth below, prior to finalizing the Draft ROD.	**RESPONSE:** DON has made the decision not to use contaminated soil from Sites 8, 11, and 12 for foundation material at Sites 2 and 17. Contaminated soil which is removed from these sites will be disposed of off-Station at an appropriate disposal facility . Comments received from the LRA during the public comment period are being addressed in the Responsiveness Summary that will accompany the Draft Final Record of Decisions for Sites 8, 11, and 12. The Draft Responsiveness Summary was submitted for regulatory agency review on 7/19/99. A copy of this document was also transmitted to the LRA for review.
In addition to the issues raised in the June 7, 1999 submittal by the LRA to DON/USMC, a number of concerns regarding the potential use of contaminated soils as foundation material at Sites 2 and 17 arise, including the following: **What additional features or modification does DON/USMC contemplate will be included in the remedial design of the proposed remedy for Sites 2 and 17 to protect human health and the environment from the**	**RESPONSE:** As noted in the responses above, DON/USMC has made the decision not to use contaminated soil from Sites 8, 11, and 12 as part of the remedy at Sites 2 and 17.

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contaminants present in soils originating from Site 8, 11, and 12?	
The authors of the Draft HRA conclude that Site 8 is an area potentially impacted by radioactive materials. What additional feature or modifications does DON/USMC contemplate will be included in the remedial design of the proposed remedy for Sites 2 and 17 to protect human health and the environment from such radioactive materials?	**RESPONSE:** Please see the response above.
DON/USMC indicates that no increase in risk will occur as a result of the use of contaminated soil at Sites 2 and 17 (see, e.g., Draft ROD at 7-9). What is the basis for this conclusion? Has DON/USMC quantified this risk? If so, could DON/USMC provide this risk assessment to the LRA for review?	**RESPONSE:** Please see the response above.
Has DON/USMC considered and quantified any potential impacts to groundwater as a result of the use of contaminated soil at Sites 2 and 17?	**RESPONSE:** Please see the response above.
Has DON/USMC considered and quantified potential additional settlements in the landfill waste that could result from the added mass of soil disposed of at Sites 2 and 17? Have the cover and site grades been designed to accommodate such settlements?	**RESPONSE:** Please see the response above.
What is the opinion of the regulatory agencies concerning the use of contaminated soils at Sites 2 and 17? Would such use constitute the disposal of a waste? Would such use be distinguished from the consolidation of existing, previously disposed wastes at Sites 2 and 17? What would be the regulatory status of the excavated soils that DON/USMC proposes to use at Sites 2 and 17 (e.g., Special waste? Designated waste?)	**RESPONSE:** Please see the response above.
Will disposal of contaminated soil at Sites 2 and 17 change the regulatory status of Sites 2 and 17? (Stated alternatively, would these sites be considered active disposal sites and be subject to permitting, design, construction, monitoring, and closure requirements different from the	**RESPONSE:** Please see the response above.

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applicable or relevant and appropriate requirements considered thus far by DON/USMC in the Sites 2 and 17 remediation process?) What regulations and/or requirements would apply if Sites 2 and 17 were considered "active" landfill sites as a result of the placement of uncontaminated soils from Sites 8, 11, and 12? What is the position of the regulatory agencies with respect to this issue?	
As noted above, GeoSyntec recommends that these and related concerns be addressed prior to finalization of the Draft ROD. In the alternative, DON/USMC should consider disposing of such contaminated soils off-site, rather than at Sites 2 and 17. If DON/USMC chooses the latter course of action, it should memorialize its decision in the ROD.	**RESPONSE:** DON will memorialize its decision to dispose of contaminated soils off-Station in the Sites 8, 11, and 12 RODs. Reference to recycling of soil from Sites 8, 11, and 12 at the Site 2 and 17 landfills will be removed from the Site 2/17 ROD.
COVER COST AND PERFORMANCE ISSUES **DON/USMC indicates that soil used to construct the soil cap at Sites 2 and 17 will be excavated, mixed, and compacted to achieve a minimum hydraulic conductivity of $2x10^{-5}$ cm/s (see, e.g., Draft ROD at 7-7). DON/USMC also indicates some or all the soil that will be used to construct the soil cap at Sites 2 and 17 may be imported from an off-Station source (see Draft ROD at 7-7). However, DON/USMC states in the Draft ROD that the soil cap material will be constructed using soil obtained from a borrow located between Sites 2 and 17 (see, e.g., Draft ROD at 9-1).** **In previous investigations of the proposed on-site borrow location, DON/USMC determined that the hydraulic conductivity of on-site soils was more than 2×10^{-5} cm/s (see UNSAT-H Infiltration Modeling Report dated October 1999 at 7). On the basis of existing data, soil import and mixing are needed to achieve the target hydraulic conductivity of 2×10^{-5} cm/s. To GeoSyntec's knowledge, these issues and their related costs were not contemplated or analyzed by DON/USMC in the Remedial Investigations, Feasibility Studies, or Proposed Plan for Sites 2 and 17.**	**RESPONSE:** The Draft Final ROD for Sites 2 and 17 noted that soils for the monolithic soil cap could be obtained from either on-Station or off-Station source(s). Based on recent evaluations, the cost of utilizing the on-Station borrow source is consistent with using an off-Station source, in fact, the off-Station source may even cost slightly less. The LRA will have the opportunity to review this and other design issues during the remedial design phase of the restoration program

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Thus, the actual construction cost for Alternative 3 will likely be significantly greater than that planned by DON/USMC. Should and/or will DON/USMC reevaluate the feasibility and suitability of Alternative 3 as the preferred alternative based on these new considerations?	
GeoSyntec also anticipates that the California Regional Water Quality Control Board (CRWQCB) and California Integrated Waste Management Board (CIWMB) likely will give only a conditional approval of the soil cover (Alternative 3) for Sites 2 and 17. Final approval likely will be granted only following a field demonstration of the equivalence between a soil cover and the so called "Title 27 prescriptive cover" discussed in the Draft ROD. In light of these uncertainties and the field verification testing required for demonstration of the equivalence between Alternative 3 and the Title 27 prescriptive cover, would other alternatives previously rejected by DON/USMC become feasible alternatives for Sites 2 and 17?	**RESPONSE:** The use of a monolithic cap at MCAS El Toro Sites 2 and 17 is supported by regulatory agencies, including U.S. EPA, DTSC, and CIWMB, under a non-irrigated scenario as noted in their November 1997 comments on the Draft Proposed Plan for Landfill Sites 2, 3, 5 and 17. U.S. EPA noted: "EPA generally agrees with the Navy's selection of Alternative 3 for the 4 landfill Sites, as long as the alternative is consistent with reuse." DTSC noted: "DTSC agrees with the Marine Corps' selection of Alternative 3 for Landfill Sites 2 and 17." CIWMB noted: "The monolithic native soil final cover, which in this plan is presented as a "preferred alternative" for all four landfills (Sites 2, 17, 3, and 5) appears to be adequate for all four sites under a non-irrigated open space postclosure land use scenario..." The RWQCB also noted in their 10/29/96 comments on the Draft Feasibility Study for Sites 2 and 17: "We recommend a monolithic cover ... in semi-arid/arid region[s]. If El Toro MCAS is designated as semi-arid climate, then a monolithic cover (Alternative 3) is a good idea." DON understands that there is a possibility that regulatory agencies could request field demonstration of the equivalence between the monolithic cap and the Title 27 prescriptive cap and will address any such requests during the detailed design phase. The LRA will have continuing opportunities to review this and other design issues during the remedial design phase of our restoration program.
LANDFILL GAS GENERATION ISSUES	**RESPONSE:** DON intends to comply fully with all regulations cited as

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Based on information provided in the Remedial Investigation/Feasibility Study Reports for Sites 2 and 17, and the information summarized in Sections 5.2.2.2 and 5.3.2.2 of the Draft ROD, methane was detected at Site 2 and (to a lesser extent) at Site 17 at concentrations of up to 2.5% as measured during the air SWAT Investigation at Site 2. The presence of methane indicates that landfill gas likely is being generated at the landfills. Therefore, it is necessary to perform gas monitoring in the vadose zone and through the landfill cover in accordance with a number of requirements including, for example, the South Coast Air Quality Management District (SCAQMD) Rule 1150 and California Code of Regulations (CCR) Title 27, Subchapter 4, Article 6. Monitoring shall be performed using a monitoring network, monitoring schedule, and monitoring program adapted to reuse of the land within a 1,000-ft radius around the landfill sites. If necessary, based on monitoring data, a gas extraction system shall be installed to properly control landfill gas migration from the landfills.	ARARs for landfill gas monitoring. The issue of whether landfill gas controls are required will be addressed at the detailed design phase.
In addition to methane, landfill gas contains volatile organic compounds (VOCs). These VOCs have a tendency to migrate in the vadose zone, away from the landfill to groundwater. Such migration could cause impacts to underlying groundwater, such as the elevated concentrations of tetrachloroethene and trichloroethene detected in groundwater Monitoring Wells 02_DGMW61 and 02NEW 8A located downgradient of Site 2 (see Draft ROD at Figure 5-6). Landfill gas modeling was performed by DON/USMC in August 1997 as part of the Site 2 Feasibility Study (see Site 2 FS at Appendix B) and additional gas modeling was performed in October 1998 for Sites 3 and 5 following the close of the public comment period on the Proposed Plan for Sites 2, 3, 5, and 17 (see report titled "Landfill Gas Emission Model -- MCAS El Toro" prepared by Bechtel National, Inc.). By letter dated 23 November, 1998, the LRA submitted to DON/USMC various comments and questions prepared by GeoSyntec concerning DON/USMC's landfill gas modeling. To date, the	<u>RESPONSE</u>: DON will revise the Draft Final ROD to state that the need for landfill gas controls will be evaluated at the detailed design phase. DON performed additional groundwater investigation in 1998 subsequent to the RI to determine whether the TCE present at Site 2 originates at the landfill. Two additional wells, 02NEW15 and 02NEW16, were added between the landfill and the TCE plume and sampled. Several hydropunch samples were also collected in this area. The sample results helped to define the TCE plume that is shown as Figure 5-6 in the Draft Final ROD and indicated that VOCs in groundwater are not migrating from the landfill at concentrations above the MCLs. DON is currently in the process of preparing a response to the LRA comments on the landfill gas modeling. However, DON does not agree that it is necessary to defer final action on the ROD pending resolution of this issue because DON will make the determination of the need for landfill gas controls at the remedial

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LRA has not received a detailed response to this submittal.	design phase. The LRA will have the opportunity to comment on DON's evaluation at that time.
In light of the above, GeoSyntec recommends that final action on the Draft ROD be deferred until DON/USMC responds to the questions and concerns raised by the LRA concerning this issue. In the alternative, GeoSyntec recommends that DON/USMC consider installing, as a part of the final remedy, a cost-effective infrastructure designed to support a gas control system. GeoSyntec would be pleased to discuss these landfill gas generation issues with DON/USMC in the near future.	RESPONSE: As noted in the response to the last comment and as agreed upon during the August 20, 1999 between DON and the LRA, DON will memorialize in the Site 2/17 ROD its commitment to reevaluate the need to install a gas collection system during the remedial design phase.
GROUNDWATER QUALITY AND REMEDIATION RESULTS **DON/USMC appears to have revised its position regarding the contribution of the landfills to groundwater contamination. DON/USMC indicates that in the Draft ROD that metals are not contributing to groundwater contamination at Sites 2 and 17 based on a recently-completed study (see Draft ROD at 5-12). As VOC were not detected at Site 17, DON/USMC has determined that groundwater need not be remediated at this landfill. However, as VOCs were detected at Site 2, DON/USMC has determined that impacts to groundwater at this site will be addressed in a separate Record of Decision or in an amendment to the ROD for Sites 2 and 17 (see ROD at 7-14).**	RESPONSE: Comment noted. This statement is correct.
DON/USMC provided the LRA a copy of the report titled "Draft Final CERCLA Groundwater Monitoring Plan -- MCAS El Toro" (June 1999). GeoSyntec, on behalf of the LRA, currently is reviewing this document and will provide detailed comments to the LRA in the near future. GeoSyntec recommends that the Draft ROD not be finalized until the parties are able to discuss these issues in detail.	RESPONSE: LRA review and comment on the Draft Final Monitoring Plan is encouraged. However, DON believes that the LRA's comments on this document can be adequately addressed without delaying signature of the Site 2/17 ROD.
In addition, due to uncertainties associated with the potential presence of radionuclides and perchlorate in groundwater (as reflected in DON/USMC's reports titled "Draft Evaluation of Perchlorate in	RESPONSE: Neither DON nor the regulatory agency members of the FFA see the necessity for a separate ROD for groundwater at Site 17.

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Groundwater," dated April 1999, and "Draft Final CERCLA Groundwater Monitoring Plan," dated June 1999), GeoSyntec recommends that DON/USMC consider issuing a Record of Decision for groundwater for <u>both</u> Sites 2 and 17. This would provide DON/USMC additional time to monitor the landfill sites, augment its groundwater quality database, and develop a more appropriate remedy for groundwater.	Three rounds of perchlorate sampling have been conducted at the groundwater monitoring wells at Site 17. Perchlorate was not reported above the detection limit of 4 µg/L in any of the samples collected from these wells. Similarly, there have been no exceedances of MCLs for radionuclides at the Site 17 wells. This rationale has been explicitly added to the Site 2/17 ROD.
LANDFILL MONITORING ISSUES **In the Draft ROD, DON/USMC proposes a monitoring plan for Sites 2 and 17 (see, e.g., Draft ROD at Tables 9-3 and 9-4). The monitoring plan includes landfill gas monitoring, leachate monitoring, and groundwater monitoring. DON/USMC also describes sampling locations, frequency of sampling, and list of analyses. However, as radionuclides, metals, and organic compounds were detected in surface water (see Draft ROD at Section 5), the proposed monitoring program should be modified to include surface water sampling and analysis for these compounds. Generally consistent with recommendations and comments made by DTSC, GeoSyntec recommends that the proposed monitoring frequency be revised in the following manner:** **Landfill Gas — Monthly** **Vadose Zone Gas — Monthly** **Groundwater — Quarterly** **Surface Water — Quarterly** **Leachate — Semi-Annually** **Landfill Cap — Quarterly** **Grading — Quarterly, and**	<u>**RESPONSE**</u>: DON did not recommend surface water monitoring because there is no evidence that elevated levels of radionuclides, metals, or organic compounds detected in surface water originated from the landfills rather than from natural or upstream sources. The regulatory agencies have not indicated that they see a need for such monitoring at these sites. The monitoring frequency proposed by the LRA for leachate monitoring and for monitoring of the landfill cap and grading are consistent with the recommendations of the proposed monitoring plan presented in the ROD. The LRA proposes that landfill gas and vadose zone gas be monitored monthly. The proposed landfill gas monitoring frequency is quarterly. This frequency of landfill gas monitoring is consistent with 27 CCR 20933 and with comments from CIWMB on the Draft FS report for Site 2 as follows: "Because of a limited knowledge of the landfill waste fill and its gas generation potential, landfill gas monitoring frequency should remain as quarterly for the period of 30 years (worst case scenario)...." There is no regulatory requirement for monitoring of vadose zone gas. The LRA proposes that groundwater and vegetation be monitored quarterly rather than semi-annually as proposed in the Draft Final ROD. DON does not agree that quarterly groundwater monitoring is appropriate because of the age of the landfill and the abundance of data that has already been collected from

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Vegetation **Quarterly** **The proposed monitoring frequencies will better enable DON/USMC to identify and evaluate site conditions. Following completion of monitoring activities for a five-year period, monitoring frequencies may be re-evaluated and modified, following review and approval of relevant regulatory agencies.**	groundwater monitoring wells at these sites. The Site 2 and 17 landfills were active from the late 1950s until about 1980 (Site 2) and from 1981 to 1983 (Site 17). Both landfills have therefore been inactive (and uncapped) for approximately 15 to 20 years. In addition, groundwater at Sites 2 and 17 has been monitored since 1992 (Site 2) and 1993 (Site 17), with most wells having been sampled at least 5 to 7 times between 1992 and 1999. DON believes that the data already collected to date provide an adequate baseline and that sampling twice a year will be adequate to determine any new releases and monitor the status of the existing TCE and PCE plumes at Site 2. DON concurs with the LRA's recommendation that vegetation be monitored quarterly. This monitoring will be done at the same time the landfill cap and grading are inspected. The ROD will be revised to show the change in frequency of inspection.
In the proposed monitoring plan, DON/USMC does not provide a detailed description of the methodology that will be used to analyze the data and to determine whether additional remedial action is necessary. Such methodology should be based on the requirements of Title 27 for landfill monitoring, should be included in the monitoring plan and should be approved by the regulatory agencies. This would streamline the data analysis process and facilitate the decision-making process pursuant to which an evaluation monitoring program or corrective action program would be initiated.	RESPONSE: Because the ROD is a conceptual level document, it is not appropriate to provide this level of detail in the ROD. DON plans to develop the methodology that will be used to analyze the data and to determine whether remedial action is necessary during the remedial design phase. As Geosyntec suggests, the methodology will be based on the Title 27 monitoring requirements, which are ARARs for the remedial action at the landfills.
GeoSyntec also recommends that DON/USMC develop a preliminary response plan as part of the ROD, which would be implemented if a corrective action program becomes necessary (i.e., gas recovery and treatment system or groundwater treatment system installation). Such a	RESPONSE: Because the ROD is a conceptual level document, it is not appropriate to include a detailed preliminary response plan in a ROD. DON will evaluate the need for a preliminary response plan at the remedial design phase. As is the case with several other issues that Geosyntec has suggested be

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preliminary response plan would integrate the corrective action program with the preferred alternative, site reuse plan, and surrounding site reuse plan. The ease of integrating the potentially needed corrective action with the remedy should be considered in the remedy evaluation and selection process.	expanded in the ROD, the response plan is considered a detailed design issue and, as such, will be addressed once the ROD is finalized.
CONCLUSION **We look forward to working with you on these issues and to receiving responses to these comments from DON/USMC.**	RESPONSE: As most of these issues are design related issues, we look forward to working with the LRA to resolve these issues during the remedial design phase of our restoration program.

October 1999

Originator: Sally A. Drach and John Schloterbeck McCutchen, Doyle, Brown & Enersen, LLP **To:** Polin Modanlou MCAS El Toro Local Redevelopment Authority **Date:** July 15, 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
GENERAL COMMENTS **At your request, we have prepared the following preliminary comments on behalf of the Orange County Local Redevelopment Authority ("LRA") concerning the June 1999 Draft Record of Decision, Operable Unit 2B, Landfill Sites 2 and 17, Marine Corps Air Station El Toro, California ("Draft ROD") prepared by and on behalf of the Department of Navy, U.S. Marine Corps ("DON/USMC"). These comments are intended to supplement the July 1999 draft memorandum regarding the Draft ROD prepared by GeoSyntec Consultants ("GeoSyntec").**	***RESPONSES TO GENERAL COMMENTS*** RESPONSE: The responses to the LRA's legal counsel follow.
As you know, DON/USMC originally contemplated transferring ownership and control of a significant portion (approximately 1,000 acres) of MCAS El Toro, including Sites 2 and 17, to the Department of Interior ("DOI"). We understand that DOI is reconsidering this proposal, and that DON/USMC may consider alternative conveyances to the Federal Aviation Administration ("FAA"). The precise details of the transfer of the ownership, operation and use of such property are the topic of ongoing discussions by and among DON/USMC, the DOI, and FAA.	RESPONSE: It is true that DON/USMC may no longer be transferring the property containing Sites 2 and 17 to DOI and that DON is considering alternative conveyances. At this time, the recipient of the property containing Sites 2 and 17 has not been determined. Once the transferee has been identified, details of the transfer, operations, and use of the property will be finalized.
It is our understanding that you have discussed this issue with DON/USMC. DON/USMC has agreed to meet with the LRA and its representatives in late July or early August 1999. DON/USMC further has agreed to accept and consider any comments submitted by or on behalf of the LRA on the Draft ROD up to and including the date of the (presently unscheduled) meeting, or any subsequent date that may be agreed upon by the parties.	RESPONSE: The DON and the LRA met on August 20, 1999 to discuss the LRA's comments on the Draft Final ROD for Sites 2 and 17. As agreed, DON will respond to comments on the Draft Final ROD received prior to and on that date and to follow-on comments generated as a result of issues raised at the meeting.
In anticipation of the upcoming meeting with DON/USMC, you have requested McCutchen and GeoSyntec to prepare draft memoranda summarizing in general terms key concerns with the Draft ROD that the LRA has identified to date. As additional information and clarification is obtained with respect to the transfer of ownership and control of Sites 2 and 17, GeoSyntec and McCutchen, acting on behalf of the LRA, may	RESPONSE: Comment noted.

Originator: Sally A. Drach and John Schloterbeck McCutchen, Doyle, Brown & Enersen, LLP **To:** Polin Modanlou MCAS El Toro Local Redevelopment Authority **Date:** July 15, 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
have additional comments on the Draft ROD. In addition, at your request, we would be pleased to prepare specific proposed revisions to the Draft ROD to discuss with DON/USMC at the upcoming meeting of the parties.	
A. FUTURE LAND USE; TRANSFER OF SITES 2 AND 17 **In various sections of the Draft ROD DON/USMC (a) refers to the transfer of Sites 2 and 17 to the United States Fish and Wildlife Service ("USFWS") by means of a Federal agency to Federal Agency transfer, and (b) identifies the USFWS as the subsequent owner of Sites 2 and 17. See, e.g., Draft ROD at §§ 1.7 and 7.2.1. If DON/USMC considers alternative conveyances, we recommend that DON/USMC revise the Draft ROD to document potential changes in the status of the proposed transfer to the USFWS. At a minimum, DON/USMC should revise the Draft ROD to acknowledge potential alternative conveyances (i.e., that some or all of Sites 2 and 17 may be transferred by DON/USMC to an entity other than USFWS) and to ensure that the proposed remedies do not unduly impair the entities' anticipated uses of the sites.**	**RESPONSE A:** As noted in the response to the general comments above, DON has revised the ROD to delete mention of transfer to USFWS and to acknowledge potential alternative conveyances to other entities. The entity to which the entire property will be transferred is not known at this time. DON is committed to working with the LRA, local government officials, and the public to develop realistic assumptions concerning the future use of the property containing Sites 2 and 17. In selecting a remedial alternative, DON will attempt, to the extent reasonably practicable, to facilitate the proposed future land use. In turn, it is the responsibility of the transferee to ensure that activities associated with future land use do not negatively impact the CERCLA landfill remedy. At the August 20, 1999 meeting with the LRA, DON and the County of Orange committed to work together to coordinate the design of the landfill cap for Site 2 and the adjacent Alton Parkway extension to avoid adverse impact on Borrego Canyon Wash, the landfill, or the parkway. DON will memorialize this commitment in the Draft Final Interim Site 2/17 ROD.
In addition, it is our understanding that DON/USMC is aware of the anticipated use of property located adjacent to or in the vicinity of Site 17 by the FAA. We recommend that DON/USMC revise the Draft ROD (a) to identify and describe anticipated uses of the relevant property by the FAA, and (b) to memorialize its commitment to meet and confer with the FAA to ensure that the proposed remedy for Site 17 does not unduly impair the FAA's anticipated use of the relevant property.	**RESPONSE:** At this time, it is not known whether the FAA or another entity will be the transferee of Sites 2 and 17. Therefore, the FAA will be acknowledged as a possible transferee, but as noted in the response to general comments, the ROD will be revised to allow flexibility to transfer the property to a federal or non-federal entity. Since the transferee has not been determined at this time, it is not possible or appropriate to identify and describe anticipated uses by the FAA or to commit to meet and confer with the FAA to ensure that the proposed remedy does not unduly impact reuse of the site.

Originator: Sally A. Drach and John Schloterbeck McCutchen, Doyle, Brown & Enersen, LLP **To:** Polin Modanlou MCAS El Toro Local Redevelopment Authority **Date:** July 15, 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
B. INSTITUTIONAL CONTROLS **The following provides a number of general comments concerning the discussion of institutional controls set forth in the Draft ROD. As discussions among DON/USMC, the DOI, LRA and FAA proceed, additional comments concerning proposed institutional controls may be presented to DON/USMC for consideration.**	**RESPONSE B:** The responses to individual comments follow.
1. Restriction on the Construction of Structures Located Within 1,000 Feet of the Landfill Perimeters; Conduct of Land-Disturbing Activities On Adjacent Properties **In comments submitted by the LRA to DON/USMC in January 1999 (concerning a preceding (November 1998) version of the Draft ROD), the LRA raised a number of questions and concerns regarding the areal extent of proposed institutional controls applicable to Sites 2 and 17. In particular, the LRA raised concerns regarding the potential impact of proposed institutional controls upon the construction of the Alton Parkway, located within 1,000 feet of the perimeter of Site 2. See generally the letter from Courtney C. Wiercioch, LRA to Joseph Joyce, DON/USMC (Jan. 29, 1999). In addition, the County raised more detailed concerns regarding the impact of proposed institutional controls upon the construction of the Alton Parkway. See the letter from Kenneth R. Smith, County Public Facilities & Resources Department to Joseph Joyce, DON/USMC (Jan. 28, 1999).** **DON/USMC generally responded to these comments by indicating that the Draft ROD would be revised to clarify that institutional controls for Sites 2 and 17 would (a) prohibit the construction of structures within 1,000 feet of the landfill perimeters without the prior approval of the California**	**RESPONSE B.1:** The subject of the 1,000 foot restriction on construction in the vicinity of the landfill sites was raised by the LRA and county as noted in letters and at a meeting held with the LRA, county, and DON on May 13, 1999. As noted in this comment, DON clarified that prior approval is required for construction within 1,000 feet of either landfill in response to written comments received from the LRA. The LRA appears to have misinterpreted DON's position at the May 13, 1999 meeting between DON, the LRA, County, and regulatory agencies. DON does not agree that the proposed institutional controls summarized in the second paragraph of this comment are neither required nor warranted. As discussed in the August 20, 1999 meeting between DON and the LRA, the 1,000 foot restriction is not only required by 27 CCR 21190 (c) (a "relevant and appropriate" ARAR for this remedial action), but is also necessary to ensure that DON and the regulatory agencies have the opportunity to review any proposed construction that could adversely impact the landfill remedy. This restriction is especially important in the case of Site 2 where the proposed construction of the Alton Parkway extension may restrict the size of the Borrego Canyon Wash and/or increase the amount of runoff the Wash may need to accommodate. Careful coordination between DON and the County of Orange is necessary to protect both the landfill remedy and the roadway. Therefore, to specifically respond to the LRA's requests that follow, DON/USMC will (a) acknowledge and describe the anticipated construction of the Alton Parkway extension; (b) will reiterate that such construction will require prior approval of DON to ensure that the proposed engineering design

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Integrated Waste Management Board ("CIWMB"), and (b) prohibit land-disturbing activities on lands adjacent to the landfill that may cause adverse effects upon the cap through erosion of the cap or diversion of off-site surface water onto the cap unless the adjacent land owner provides for mitigation of such effects and obtains the prior approval of DON/USMC and the signatories to the Federal Facilities Agreement ("FFA") applicable to MCAS El Toro. See, e.g., DON/USMC, "Response to Comments: Draft Record of Decision, Operable Unit 2B (OU-2B), Landfill Sites 2 and 17, MCAS El Toro" ("DON/USMC Response to Comments"), Response to January 29, 1999 letter from Courtney C. Wiercioch at 1-2. Consistent with these comments, DON/USMC revised the Draft ROD to include a more detailed description of proposed institutional controls. See, e.g., Draft ROD at §§ 7.2.1.1 and 7.3.2.	of the Alton Parkway extension does not adversely impact the selected remedy; (c) will memorialize its commitment to cooperate with the County in the design of the Site 2 landfill cap and the Alton Parkway Extension, and (d) will respond to the LRA's request for identification of responsibilities and liabilities as outlined in DON's response to the comments raised in Section C.
In May 1999 DON/USMC met with the LRA, the County and key regulatory agencies to discuss the construction of the Alton Parkway and related issues. On the basis of discussions with regulatory agencies DON/USMC agreed that the proposed institutional controls summarized above (in the preceding paragraph) are neither required nor warranted for Sites 2 and 17.[1] This understanding is confirmed in a May 19, 1999 letter from the County to DON/USMC, and in the meeting minutes prepared by DON/USMC. See letter from Kenneth R. Smith, Deputy Director/Chief Engineer, County Public Facilities & Resources Department to Joseph Joyce, DON/USMC (May 19, 1999) at 1; and DON/USMC, "Alton Parkway Meeting Minutes, SWDivision BRAC Office, 13 May 1999" at 2. (Copies of these documents are attached to this memorandum and incorporated by reference herein.)	proposed engineering design of Alton Parkway does not adversely impact the selected remedy; (c) will memorialize its commitment to cooperate with the County in the design of the Site 2 landfill cap and the Alton Parkway Extension, and (d) will respond to the LRA's request for identification of responsibilities and liabilities as outlined in DON's response to the comments raised in Section C.
In light of these developments, DON/USMC should revise the Draft ROD to memorialize the understandings reached at the May 13, 1999 meeting of	

[1] It is our understanding that DON/USMC has reached a similar conclusion with respect to institutional controls for Landfill Sites 3 and 5. See the letter from the LRA to DON/USMC providing comments on the Draft ROD for Sites 3 and 5 (June 17, 1999).

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DON/USMC, the LRA and key regulatory agencies. More specifically, all references to the restriction on the construction of structures within 1,000 feet of the landfill perimeters and to the restriction on the conduct of land-disturbing activities on adjacent land should be deleted from the Draft ROD. See, e.g., Draft ROD at §§ 7.2.1.1 and 7.3.2. In addition, DON/USMC should revise the Draft ROD to address with specificity the proposed construction of the Alton Parkway. In particular, DON/USMC should (a) acknowledge and describe the anticipated construction, (b) memorialize its conclusion that the construction of Alton Parkway does not require the approval of DON/USMC or the FFA signatories, and is not precluded by the proposed institutional controls for Sites 2 and 17, (c) memorialize its commitment to cooperate with the County in the design of the landfill caps and Alton Parkway, and (d) identify certain responsibilities and liabilities that it has agreed to assume in connection with the anticipated construction of Alton Parkway. (See Section C of this memorandum.) **Similar issues should be discussed and confirmed with DON/USMC concerning anticipated uses of property adjacent to Site 17 by the FAA. In particular, deletion of proposed institutional controls restricting the construction of structures within 1,000 feet of the landfill perimeters and restricting the conduct of land-disturbing activities on adjacent land should minimize the potential impacts of the proposed remedy on the conduct of activities by the FAA.**	<u>RESPONSE</u>: Proposed institutional controls for Site 17 will also be discussed with the transferee when the transferee has been identified.
2. Development of a LUCICP for Sites 2 and 17 **In February 1999 The United States Environmental Protection Agency ("EPA") requested DON/USMC to provide information concerning the development of a Land-Use Control Implementation and Certification Plan ("LUCICP"). According to EPA, the purpose of the LUCICP is to outline monitoring and compliance steps necessary to achieve the land-use restrictions/controls established in the ROD. See generally the DON/USMC Response to Comments, Response to Glenn Kistner letter of February 4, 1999.**	<u>RESPONSE B.2</u>: As requested by U.S. EPA, DON revised the Site 2/17 ROD to memorialize DON's commitment to produce a LUCICP at the remedial design phase and outlined the contents of this document in the Draft Final ROD. Once the transferee of the property containing Sites 2 and 17 is known, DON will work with this entity to develop the details of the LUCICP.

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Substantive information concerning the content of the proposed LUCICP would inform the LRA and the public of this very important component of the proposed remedy. In addition, receipt of comments on the general scope and content of the LUCICP would enhance and expedite the development of the plan by DON/USMC subsequent to the finalization of the ROD for Sites 2 and 17. **While DON/USMC has described the components of the LUCICP, additional information and detail should be included in the Draft ROD.[2] More specifically, it would be useful to include information concerning the content -- not simply the components -- of the LUCICP in the Draft ROD. Consistent with EPA's recommendations, such information should include substantive information concerning the nature of the particular controls and mechanisms that will be required to achieve the ROD objectives and restrictions, the entities responsible for carrying out the monitoring and inspections, the methods for certifying the conditions of the Sites and the surrounding areas, and other relevant information.**	There are two reasons why DON does not feel that it is appropriate to develop the LUCICP further at this time. First, the ROD itself is intended to be a conceptual document where the remedial design approach is approved. It is not intended to replace the detailed design that occurs after the regulatory agencies have concurred on the approach. Just as it is not feasible or appropriate to develop and include detailed design documents in the ROD, it is not feasible to develop and include the LUCICP in the ROD. Second, the LUCICP is meant to be an agreement that reflects how the integrity of the remedial design will be maintained. Since the transferee plays a vital role in ensuring that the institutional controls are not violated, it is important that the entity to which the property is to be transferred participate in the development of the LUCICP. As noted in the responses to the General Comments above, the transferee of the property containing Sites 2 and 17 has not been finalized at this time, although it is anticipated that that a portion of the property will be conveyed to the LRA for use as a right-of-way for Alton Parkway. For these reasons, DON feels that the level of detail provided for the LUCICP is sufficient for this phase of the remedial design process.
EPA also recommended in its February 1999 comments that DON/USMC provide a draft LUCICP to the FFA signatories, the LRA, the Local Enforcement Agency, and the U.S. Department of Interior for review. Id. We recommend that the Draft ROD be revised to memorialize EPA's comment.	The Draft Final ROD will be revised to indicate that DON will provide a draft LUCICP to the FFA signatories, the LRA, the Lead Enforcement Agency, and the transferee of the property containing Sites 2 and 17 for review.
3. Implementation of Institutional Controls By USFWS **DON/USMC refers in the Draft ROD to the role of the USFWS in the development and implementation of the institutional controls and the**	**RESPONSE B.3:** DON concurs. The references to USFWS will be deleted and replaced with more generic references to the transferee.

[2] DON/USMC indicates in response to EPA's concerns regarding the LUCICP that Section 9 of the Draft ROD has been expanded to include discussion of the LUCICP. We are not aware of any specific reference to the LUCICP in Section 9 of the Draft ROD. We recommend that such a reference be included. Id.

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LUCICP for Sites 2 and 17. See, e.g., Draft ROD at § 7.2.1.1. As noted above, in Section A of this memorandum, such references should be revised, at a minimum, to refer more generically to the transferee(s) of Sites 2 and 17.	
4. Development of Land Use Covenants **In connection with its review of the Draft ROD for MCAS El Toro Landfill Sites 3 and 5, the Department of Toxic Substances Control ("DTSC") informed DON/USMC that it will be unable to approve the ROD or concur in the transfer of relevant property unless DON/USMC or the future land owner is willing to enter into a Land Use Covenant ("LUC") or a consent agreement for environmental restrictions. See, e.g., the letters from Tayseer Mahmoud, DTSC to Joseph Joyce, DON/USMC (Mar. 12 and June 17, 1999). We anticipate that DTSC's position regarding institutional controls for Sites 2 and 17 will be similar.**	**RESPONSE B.4:** DTSC has not requested a Land Use Covenant agreement for the property containing Sites 2 and 17. However, DTSC has requested such an agreement for adjacent property which is proposed to be used for the Alton Parkway extension. DON will address the Land Use Covenant agreement in the FOST for this adjacent property.
We recommend that prior to finalization of the ROD for Sites 2 and 17 DON/USMC, the LRA, the FAA, and key regulatory agencies meet and confer to discuss in greater detail the scope and content of the proposed institutional controls. Consistent with our comments on the Draft ROD for Landfill Sites 3 and 5, we recommend that understandings reached with DON/USMC generally be described and memorialized in the ROD.	**RESPONSE:** During the 8/20/99 meeting between DON and the LRA, the LRA agreed to review the institutional controls language contained in the Draft Final Site 2/17 ROD, revise the discussion as appropriate, and submit the proposed revisions to DON. The LRA subsequently proposed revisions to DON via a letter from Polin Modanlou to Dean Gould dated September 20, 1999. DON has reviewed the LRA's suggested improvements, revised the Draft Final ROD as appropriate, and has responded to the LRA comments by means of a response to comments matrix that is part of this comment package.

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C. CONSTRUCTION OF THE ALTON PARKWAY AND IMPROVEMENTS TO THE BORREGO CANYON WASH **As noted above, in a May 13, 1999 meeting DON/USMC, the LRA, the County and various regulatory agencies met and conferred regarding construction issues anticipated in the immediate vicinity of Site 2. By letter dated May 19, 1999 the County memorialized certain understandings reached by and among the parties concerning such construction activities. These understandings include, for example:**	**RESPONSE C:** DON has reviewed the meeting minutes prepared by the County and does not agree that all bulleted items contained in this comment reflect decisions reached at the May 13, 1999 meeting between the LRA, the FFA signatories, and the County of Orange. Specific responses to each of the bulleted items follow.
• **Pre-construction coordination of the design of the gas probe monitoring system by and between DON/USMC and the County.**	• DON agrees to coordinate with the County in the pre-construction phase on the design of the gas probe monitoring system and will memorialize this commitment in the ROD.
• **Further consideration of the installation of a gas collection system as a part of the landfill cap, if deemed necessary by the parties.**	• DON will defer final determination of the need for a gas collection system to the remedial design phase and will memorialize the commitment to make a determination for the need for such a system at that time.
• **Preparation of a suitable hydrologic and hydraulic analysis as a part of the landfill cap design process to ensure that Site 2 and the future Alton Parkway are protected against flooding and erosion from the Borrego Canyon Wash.**	• DON will prepare suitable hydrologic and hydraulic analyses as part of the landfill cap design to ensure that Site 2 is protected against flooding and erosion from the Borrego Canyon Wash. DON will not provide analyses or perform construction to protect the Alton Parkway from such erosion because this is the responsibility of the County. However, as stated above in Response B1, DON will cooperate with the County in the design of the Site 2 landfill cap and the Alton Parkway Extension. In addition, the FFA signatories will review the design of the drainage controls for the Parkway to ensure that addition of the extension will not adversely impact the CERCLA remedy.
• **Design and implementation of channel improvements by DON/USMC, with a right of review and approval by the County.**	• Please see the last bullet. DON will make improvements to the Borrego Canyon Wash necessary to protect the CERCLA remedy. DON does not intend to improve the Wash to protect Alton Parkway. Improvements to the Wash that are necessary to protect the Alton Parkway Extension or are necessary because of the presence of the Alton Parkway Extension are the responsibility of the county. • The Site 2/17 ROD will be revised to note that DON supports the proposed

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	future land use as long as the county's engineering design is compatible with the selected remedy for the landfill. • Design documents will be submitted to the County for review. However, the County does not have the authority to approve CERCLA remedial actions.
• **DON/USMC's commitment to assume responsibility for the management of any contaminated groundwater generated in connection or association with the County's construction of the Alton Parkway any improvements made by the County to the Borrego Canyon Wash.**	• As agreed upon in the August 20, 1999 meeting between DON and the LRA, the issue of responsibility for management of contaminated groundwater will be addressed at the time of property transfer, not in the ROD.
These issues are of significant importance to the County and the LRA. Consistent with the recommendations set forth in the May 19, 1999 letter from the County to DON/USMC, these understandings should be memorialized in the final version of the ROD for Sites 2 and 17.	**RESPONSE:** The understandings will be memorialized in the ROD as noted in the responses above.
D. SUMMARY **We look forward to working with you to address outstanding issues concerning the proposed remedy for Sites 2 and 17. We also look forward to discussing these and related issues with DON/USMC in late July or early August.**	**RESPONSE:** DON was pleased to participate in a very productive meeting with the LRA on August 20, 1999 and looks forward to continuing the dialogue with the LRA to resolve these and related issues prior to property transfer.

RESPONSE TO COMMENTS
DRAFT FINAL RECORD OF DECISION
OU-2B LANDFILL SITES 2 AND 17
MCAS EL TORO, CALIFORNIA

Originator: **Polin Modanlou** **El Toro Master Development Program** **To:** **Dean Gould, BRAC Environmental Coordinator** **MCAS El Toro** **Date:** **20 September 1999**	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
GENERAL COMMENTS **Pursuant to our August 20, 1999 meeting, the attached memo from LRA's consultant contains our comments/corrections to the Draft ROD for Landfill Sites 2 and 17.**	***RESPONSES TO GENERAL COMMENTS*** **RESPONSE:** Responses to comments from the LRA's consultant are found on the following pages.

RESPONSE TO COMMENTS
DRAFT FINAL RECORD OF DECISION
OU-2B LANDFILL SITES 2 AND 17
MCAS EL TORO, CALIFORNIA

Originator: Sally A. Drach McCutchen, Doyle, Brown & Enersen, LLP **To:** Polin Modanlou MCAS El Toro Local Redevelopment Authority **Date:** 17 September 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
GENERAL COMMENTS	***RESPONSES TO GENERAL COMMENTS***
At your request and consistent with our August 20, 1999 meeting with the Department of Navy ("DON"), we have prepared further comments upon those sections of the Draft Final ROD for Sites 2 and 17 (the "Draft Final ROD") that pertain to the proposed imposition of institutional controls. **It is our understanding that DON also is revising the Draft Final ROD to address other issues of concern discussed at our August 20, 1999 meeting. Such issues include, for example, memorializing (1) DON's commitment to work with the County of Orange (the "County") to coordinate the design and construction of the proposed remedy for Site 2, the Alton Parkway extension, and improvements to the Borrego Canyon Wash, (2) DON's decision to consider, in the remedial design process, the need for a gas control system as part of the proposed landfill cover for Sites 2 and 17, (3) DON's clarification of the mechanisms pursuant to which institutional controls will be developed and implemented, (4) DON's decision <u>not</u> to use, dispose, or place soils or other materials from Sites 8, 11, and 12 at Sites 2 or 17, (5) DON's intent to investigate and evaluate radiological issues associated with Sites 2 and 17 in the immediate near future (prior to construction of the proposed remedy for Sites 2 and 17), and (6) other issues addressed in your July 1999 transmittal to DON pertaining to Sites 2 and 17. It further is our understanding that DON will provide to the County draft language addressing these and other issues prior to finalizing its revisions to the Draft Final ROD.**	<u>RESPONSE</u>: The Draft Final ROD has been revised to address issues raised at the August 20, 1999 meeting between DON and the LRA as follows: (1) The Draft Final ROD has been revised to memorialize DON's commitment to work with the County to coordinate the design and construction of the proposed remedy for Site 2, the Alton Parkway extension, and the improvements to the Borrego Canyon Wash. Text containing this commitment can be found in Sections 1.7, 7.2.1.2, and 9.1. (2) DON has memorialized its commitment to reconsider the need for landfill gas controls at the Sites 2 and 17 landfills. Text containing this commitment can be found in Sections 7 and 9.1. (3) DON has clarified the mechanisms pursuant to which institutional controls will be developed and implemented in Sections 7.2.1 and 9.2. (4) DON has deleted references to the placement of soil from Sites 8, 11, and 12 from all sections of the Site 2/17 ROD. DON's decision not to dispose of soil from Sites 8, 11, and 12 at Sites 2 and 17 is also discussed in the response to agency comments on the Draft Final ROD and in the ROD(s) for Sites 8, 11, and 12. (5) DON has memorialized its decision to conduct a radiological survey of Sites 2 and 17 in Sections 5.6 and 9.4 of the Draft Final ROD. Section 9.4 clarifies that the selected remedy will not be implemented prior to evaluation of the impact of the survey results on the remedy. (6) Please see the response to the LRA's comments dated July 16, 1999 for DON's response to additional issues related to the Site 2/17 landfill remedy. The LRA's comments and DON's response to these comments are part of this response to comment package.
The following provides our proposed revisions concerning the issue of institutional controls proposed for Sites 2 and 17. **A. Draft Final ROD, Section 1.7 (Future Land Use)** **We recommend that in this and other related sections of the Draft Final ROD, DON memorialize its commitment to cooperate with the County in the design, construction, and maintenance of the Alton Parkway and**	<u>RESPONSE:</u> The LRA's paragraph has been added to Section 1.7 as suggested with minor changes. In particular, the statement regarding the imminence of construction of the Parkway has been changed to reflect the fact that there are many steps that the County and DON must take before construction can occur (e.g., NEPA and CEQA compliance as well as a real property conveyance). The new wording is as follows: "The DON recognizes

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Borrego Canyon Wash. Such statements are important in providing context for DON's discussion of institutional controls in the Draft Final ROD. Accordingly, we recommend that the following changes be made to Section 1.7 of the Draft Final ROD: **A Community Reuse Plan has been prepared (MCAS El Toro Local Redevelopment Authority 1996). This plan is a conceptual, policy-level reuse plan. A more detailed master plan will be developed as a second phase of reuse planning and will identify more site-specific land uses. The preferred reuse alternative for the Station was selected in the December 1996 Community Reuse Plan and consists of a major airport with a variety of potential future uses for MCAS El Toro property. According to this plan, Sites 2 and 17 are in an area designated as a 998-acre habitat reserve. The habitat area will be transferred to the United States Fish and Wildlife Service (USFWS) by means of a federal agency to federal agency transfer. Portions of this area designated as habitat reserve may be transferred to the Federal Aviation Administration by means of a federal agency to federal agency transfer.** **<u>Property located in the immediate vicinity (within 1,000) feet of Site 2 is intended to be used for the construction of an extension to Alton Parkway. In addition, the Borrego Canyon Wash is located immediately adjacent to Site 2 and the proposed location of the Alton Parkway extension. The Department of Navy recognizes and understands that the Alton Parkway extension and improvements to</u>**	and understands that the County hopes to construct the Alton Parkway extension and improvements to the Borrego Canyon Wash as soon as possible within the framework of federal and state environmental and real property conveyance requirements." Also, please note that the existing paragraph (shown without underline in this comment) has been revised because the transferee of the property containing Sites 2 and 17 is not known at this time. A statement regarding the DON's commitment to cooperate with the LRA on the Alton Parkway extension has also been added to Section 9 as requested.

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the Borrego Canyon Wash will be constructed in the relatively near future. In developing the proposed remedy for Site 2, the Department of the Navy intends that all relevant parties (including the Department of Navy, FFA signatories, and the County of Orange) will cooperate with one another to ensure that all proposed projects (the remedy for Site 2, the construction of Alton Parkway, and improvements to Borrego Canyon Wash) are designed, Constructed, and maintained in a prompt and reasonable manner. **We recommend that similar revisions to other relevant sections of the Draft Final ROD (e.g., Section 9) be made by DON.**	
B. Draft Final ROD, Section 7.2.1.1 (Land-Use Control Restrictions) **We recommend that the following revisions be made to Section 7.2.1.1 of the Draft Final ROD to address the County's concerns regarding institutional controls:** **The institutional controls shall prohibit the following:** – **residential use of the sites and construction of hospitals for humans, schools for persons under 21 years of age, day care centers for children, or any permanently occupied human habitation on the sites;** – **construction of facilities, structures, or appurtenances; excavation; or any other land-disturbing activity into or on the surface of the landfills that may affect the drainage or increase erosion or infiltration unless prior approval is obtained from the DON and the FFA signatories;** – **planting deep-rooted plants that could disturb landfill wastes;** – **irrigating the surface of the landfill;**	RESPONSE: Regarding the suggested removal of the sixth bullet: as discussed in the August 20, 1999 meeting between the DON and the LRA, the DON considers it necessary to review and approve the proposed plans for construction in the vicinity of the Site 2 landfill to ensure that such construction does not adversely impact the CERCLA landfill remedy. Therefore, this bullet will not be removed from the Draft Final ROD. However, DON will add the LRA's proposed paragraph as suggested to the end of Section 7.2.1.1 to memorialize the DON's commitment to cooperate with the County of Orange in the construction of the extension. Regarding the suggested change to the fifth bullet, the DON does not feel that this change is technically correct or appropriate. As reworded, the phrase implies that only the groundwater beneath the landfill itself shall not be exposed. The actual groundwater contamination at Site 2 is not directly beneath the landfill. Therefore, the modification will not be made.

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– exposing or extracting groundwater at Site 2 from the shallow or principal aquifers underlying the landfill; ~~aquifer at Site 2;~~ – ~~land-disturbing activity on lands adjacent to the landfill that may cause adverse effects upon the landfill through erosion of the surface or diversion of off-site surface water runoff onto the landfill, unless the land owner of the adjacent property provides for mitigation of such adverse effects (e.g., through structural drainage and erosion control measures such as diversion channels, riprap) and obtains the prior approval of DON and FFA signatories; and~~ – the removal of or damage to security features (e.g., locks on monitoring wells) or to monitoring equipment and associated pipelines and appurtenances. In addition, we recommend that the following text be added at the end of this section of the Draft Final ROD: The Department of Navy recognizes that construction of the Alton Parkway extension and the improvements to the Borrego Canyon Wash that will occur in the immediate vicinity (i.e., within 1,000 feet) of Site 2 may expose groundwater and may require the management of such exposed or extracted groundwater (e.g., as a result of excavation or dewatering activities). The Department of Navy does not intend in the establishment of institutional controls for Site 2 to foreclose such activities. As noted elsewhere in this ROD, the Department of Navy intends to work cooperatively with relevant parties, including other FFA signatories and the County of Orange to ensure that the design, construction, and maintenance of all proposed projects, including the Alton Parkway extension and improvements to the Borrego Canyon Wash, will proceed in a prompt and reasonable manner.	

Originator: Sally A. Drach McCutchen, Doyle, Brown & Enersen, LLP **To:** Polin Modanlou MCAS El Toro Local Redevelopment Authority **Date:** 17 September 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
C. Draft Final ROD, Section 7.3.2 (Institutional Controls) **We recommend that the following revisions be made to the Draft Final ROD to address the County's concerns regarding institutional controls:** **Institutional controls for Alternative 3 will consist of land-use restrictions to protect the remedy, restrictions to protect monitoring equipment, and provisions for site access. These controls are basically the same as the institutional controls for Alternative 2 (Section 7.2.1) with the following additions.** – **The future landowner(s) and or user(s) of the property will be restricted from <u>conducting</u> any activity <u>at Sites 2 or 17</u> that will adversely impact the cover or affect the drainage and erosion controls developed to protect the cover.** – **Excavations below grade surface <u>at Sites 2 and 17</u> will be allowed to maintain and/or repair the landfill cover. Excavations <u>at Sites 2 and 17</u> that will affect drainage and erosion controls developed for the cover/cap will be prohibited.** – **Settlement monuments will be provided as part of Alternative 3. The future landowner(s) and user(s) will be restricted from disturbing the monuments without prior approval from DON and FFA signatories.** – **Maintenance activities requiring site access will be expanded to include maintaining the landfill cap, rodent control measures, and erosion and drainage controls associated with the landfill cap.**	**<u>RESPONSE</u>:** The LRA's suggested changes to Section 7.3.2 appear to be focused on limiting the Site 2 and 17 restrictions to the sites themselves and not to the adjacent areas and are therefore not acceptable as discussed in the August 20, 1999 meeting and as noted in the response to the last comment.

RESPONSE TO COMMENTS
DRAFT FINAL RECORD OF DECISION
OU-2B LANDFILL SITES 2 AND 17
MCAS EL TORO, CALIFORNIA

Originator: Michael Lapin, Program Manager El Toro Master Development Program **To:** Dean Gould, BRAC Environmental Coordinator MCAS El Toro **Date:** October 26, 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
GENERAL COMMENTS **Thank you for the opportunity to review the Working Draft of the Final Record of Decision (ROD) for Operable Unit 2B Landfill Sites 2 and 17 issued by the Department of Navy/United States Marine Corps (DON) on October 22, 1999. Due to the short turnaround time, we have been unable to confer in detail with our consultants regarding recent changes to the document proposed by DON. As a result, we are unable at this time to provide detailed and comprehensive comments on the Working Draft Final ROD. We would appreciate the opportunity to further review the document concurrent with the regulatory agencies at the scheduled dates set forth by DON.** **Therefore, we reserve the right to supplement these comments on the Final ROD at that time, following a more detailed review of the document. Moreover, we do not intend, through the submittal of these and other comments on the Working Draft Final ROD for Sites 2 and 17, to comment directly or indirectly on similar issues pertaining to Sites 3 and 5 at MCAS El Toro.**	*RESPONSES TO GENERAL COMMENTS* **RESPONSE:** Thank you for meeting the short turnaround time for this review. A copy of the "Working Draft" Final Site 2/17 ROD will be transmitted to the LRA at the same time as copies are sent to the regulatory agencies for review.
SPECIFIC COMMENTS **The following provides a summary of the comments concerning the Working Draft Final ROD for Sites 2 and 17.**	*RESPONSES TO SPECIFIC COMMENTS*
1. References to the County of Orange **References throughout the Working Draft Final ROD to the "county of Orange" should be revised to the "County of Orange."**	**RESPONSE 1:** References to the "county of Orange" have been changed to the "County of Orange" as requested.
2. Declaration **The Declaration section of the Working Draft Final ROD should be revised to confirm, as stated elsewhere in the Working Draft Final ROD, that implementation of the physical remedy will not occur until**	**RESPONSE 2:** A paragraph has been added to the Declaration as requested to confirm that implementation of the physical remedy will not occur until radiological surveys of Sites 2 and 17 are completed and the results of the surveys and related sampling have been evaluated to determine the potential impact on the remedial design.

Originator: Michael Lapin, Program Manager El Toro Master Development Program **To:** Dean Gould, BRAC Environmental Coordinator MCAS El Toro **Date:** October 26, 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
radiological surveys of Sites 2 and 17 are completed, and the results of the surveys and related sampling have been evaluated by all relevant parties to determine the potential impact on the remedial design.	
3. Disposal of Radiological Materials at Sites 2 and 17 **DON's proposed addition to Section 1.3 of the Working Draft ROD should be revised to include the possible disposal at Sites 2 and 17 of radiological materials other than and in addition to equipment painted with radium paint.**	**RESPONSE 3:** DON has modified the sentence in question as follows: "It is also possible that equipment painted with radium paint, or other low-level radiological materials, consistent with Station operations could have been disposed into the Site 2 landfill." A similar statement was also added to the paragraph discussing the potential contents of the Site 17 landfill.
4. Possible Transfer of Land to the County of Orange **Please delete the last sentence of the first paragraph of Section 1.7 of the Working Draft Final ROD in its entirety.**	**RESPONSE 4:** The last sentence of the first paragraph of Section 1.7 has been modified to read as follows: "In addition, portions of the property containing Site 2 may be transferred to a non-federal entity."
5. Proposed Construction of the Alton Parkway Extension and Borrego Canyon Wash Improvements **We are pleased that the DON has revised the Draft ROD to memorialize its commitment to cooperate with the County of Orange to ensure that all proposed projects in the vicinity of Site 2 (e.g. the construction of the Alton Parkway extension and improvements to the Borrego Canyon Wash) are designed, constructed and maintained in a prompt and reasonable manner. However, we do not concur that changes made by DON to our proposed revisions to Section 1.7 of the First Draft Final ROD (proposed in September 1999) are "minor." (See DON Response to Comments (September 17, 1999 Letter from Polin Modanlou) at 1-2.) In addition, we note that DON's revised statement concerning the County of Orange's "hopes" to construct the Alton Parkway extension and improvements to Borrego Canyon Wash may inappropriately be attributed to the County of Orange. For purposes of clarity, we recommend that the applicable sentence be deleted in its entirety and replaced with the following text: "DON**	**RESPONSE 5:** DON has deleted the sentence concerning the County of Orange's "hopes" to construct the Alton Parkway extension and improvements to the Borrego Canyon Wash and has replaced the sentence with the text recommended by the LRA. DON has retained the institutional controls relating to construction within 1,000 feet of the landfills. However, as the LRA suggests, DON has added the clarification that DON intends to draft the restriction in a manner which will ensure the prompt and reasonable exercise of judgement by DON. This clarification has been added to Page 7-5 and to Section 9.2.1 as requested.

Originator: Michael Lapin, Program Manager El Toro Master Development Program **To:** Dean Gould, BRAC Environmental Coordinator MCAS El Toro **Date:** October 26, 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
recognizes and understands that the County of Orange plans to construct the Alton Parkway extension and improvements to Borrego Canyon Wash." **Moreover, as previously discussed with DON, we do not concur that a prohibition on the construction of structures within 1,000 feet of the landfill perimeters without the prior approval of DON is either required by law or is warranted at all MCAS El Toro landfill sites. (See, e.g., Working Draft Final ROD at 7-4 and 7-5.) As we previously have discussed with DON, our position is consistent with the view articulated by the California Integrated Waste Management Board, the agency responsible for implementing relevant regulatory requirements.** **If such an institutional control is included as a part of the final remedy for Sites 2 and 17, we recommend that DON, at a minimum, clarify in the Final ROD that the restriction will be drafted in a manner which will ensure the prompt and reasonable exercise of judgment by DON.** **We have similar concerns (and make similar recommendations) regarding the sixth bullet of Section 9.2.1 of the Working Draft Final ROD, in which DON generally proposes to prohibit "land-disturbing activity on lands adjacent to the landfill that may cause adverse effects upon the landfill through erosion of the surface or diversion of off-site surface water onto the landfill."**	
6. Groundwater Monitoring **DON states in the Working Draft Final ROD that surface water monitoring is not warranted at Site 2 and 17. We do not concur. We note, for example, that chemical analysis of sediments collected in Borrego Canyon Wash by DON indicate that the sediments have been impacted by low concentrations of chemical compounds likely to be landfill-related.) (See Working Draft Final ROD at 5-6.) In addition, DON reports that leachate is seeping from Site 2 and is flowing as**	**RESPONSE 6:** DON agrees that it would be prudent to monitor surface water quality in Borrego Canyon Wash, but believes that this can be accomplished under the current NPDES permit and need not be included in monitoring associated with landfill closure. Currently, surface water quality is monitored at the downstream boundary of the Station for Agua Chinon Wash, and a tributary to Agua Chinon Wash is located near IRP Site 17. The DON is also in the process of establishing a monitoring point for routine storm water monitoring on Borrego Canyon Wash.

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surface water between "Area A" and "Area B" of Site 2. (See Working Draft Final ROD at 5-8.) These observations indicate that, historically, wastes disposed in Site 2 have likely impacted surface water or stormwater at Site 2. The same may be true for Site 17. **In light of these observations, it would be prudent to monitor surface water and stormwater following implementation of the physical remedy at each site to confirm the effectiveness of the remedy. Monitoring could be reduced or terminated if field observations and monitoring data indicate that the potential for release of landfill constituents to surface or stormwaters is significantly diminished or eliminated by implementation of the physical remedy.**	Monitoring results are reviewed by the RWQCB. Data evaluated during the RI indicated that the quality of the water in the seep at Site 2 is related to groundwater upstream of Site 2 and not leachate from the landfill. DON is continuing to evaluate conditions in the vicinity of the seep between Areas A and B at IRP Site 2, and will add seep water monitoring to the final groundwater monitoring plan if evidence of contamination related to the landfill is discovered.
7. Radiological Surveys **DON states in the last paragraph of Section 5.6 of the Working Draft Final ROD that it will conduct additional radiological surveys and sampling (if necessary) at Site 2 and 17. We recommend that DON include the following text as a new penultimate (second to last) sentence of this paragraph: "DON intends to start remedial design of the landfill caps for Sites 2 and 17 prior to completion of the radiological survey. However, remedial action (e.g. construction of the landfill caps) will not take place until the survey/sampling is complete and the data have been evaluated to determine the potential impact on remedial design." Similar text is set forth at existing Section 9.4 of the Working Draft Final ROD.**	**RESPONSE 7:** The last paragraph of Section 5.6 has been modified as suggested.
8. Prohibition on Groundwater Extraction and Exposure **We are pleased that DON (a) recognizes in the Working Draft Final ROD that construction activities to be conducted in the vicinity of Site 2 may expose groundwater and may require the management of such exposed or extracted groundwater, and (b) confirms that it does not intend, through the implementation of institutional controls, to foreclose such activities. (See, e.g., Working Draft Final ROD at 7-5.)**	**RESPONSE 8:** DON understands the LRA's position that DON is responsible for the management of contaminated groundwater and has agreed to discuss this issue further at the time of property transfer. DON's point in this response was, as no agreement has been reached to date, the issue will not be addressed in the ROD. DON understands the LRA's concern that the extent of the institutional controls on drilling or extraction of groundwater is not defined in the ROD and has

Originator: Michael Lapin, Program Manager El Toro Master Development Program **To:** Dean Gould, BRAC Environmental Coordinator MCAS El Toro **Date:** October 26, 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
We note, however, that we do not concur with DON's statement that "[a]s agreed upon in the August 20, 1999 meeting between DON and us, the issue of responsibility for management of contaminated groundwater will be addressed at the time of property transfer, not in the Working Draft Final ROD." (Response to Comments (July 15, 1999 letter from Polin Modanlou) at 24.) To our knowledge, such an agreement was not reached by the parties. Responsibility for the management of groundwater contaminated as a result of DON's activities is, and should remain, the responsibility of DON. This is particularly the case with construction projects that (a) were known to DON well in advance of preparation of the Working Draft ROD, and (b) reasonably would involve the exposure, dewatering or other management of groundwater contaminated by DON. **Similarly, we do not concur with DON's decision to establish an institutional control which would prohibit the exposure or extraction of groundwater beneath and in some unspecified vicinity of the landfill perimeters. (Response to Comments (September 17, 1999 letter from Polin Modanlou) at 3.) The Working Draft Final ROD is deficient in that it does not address such key issues as the geographic extent of DON's proposed institutional controls, the method used to determine which groundwater is (or is not) contaminated, the responsibility of DON for incremental additional costs associated with managing such contaminated groundwater, and the process pursuant to which DON will (or will not) approve the extraction or exposure of contaminated groundwater.** **If such an institutional control is included as a part of the final remedy for Sites 2 and 17, we recommend that DON, at a minimum, clarify in the ROD that the restriction will be drafted in a manner which will ensure the prompt and reasonable exercise of judgment by DON.**	modified Figure 7-2 to show the tentative boundary of the institutional controls for groundwater at Site 2. The groundwater plumes at Site 2 are currently being delineated and the groundwater remedy has not been selected. Therefore, the institutional controls boundary for groundwater extraction will be finalized in the Land Use Control Implementation Plan. DON has also added the clarification requested by the LRA that the restriction on drilling into or extraction of groundwater will be drafted in a manner which will ensure the prompt and reasonable exercise of judgment by DON.
9. Groundwater Remediation at Site 17	**RESPONSE 9:** DON will add this clarification to the Declaration and to Page 9-2 of the ROD.

Originator: Michael Lapin, Program Manager El Toro Master Development Program **To:** Dean Gould, BRAC Environmental Coordinator MCAS El Toro **Date:** October 26, 1999	**CLEAN II Program** **Contract No. N68-711-92-D-4670** **CTO-0164** **File Code: 0222**
DON states in the Working Draft Final ROD that groundwater monitoring will continue at Site 17 (see, e.g., Working Draft Final ROD at 5-13, 7-7, 9-7). DON also states in the Working Draft Final ROD that "[g]groundwater at Site 17 does not require remediation." (See, e.g., Working Draft Final ROD at 2.) This and other similar statements should be revised to indicate that, at this time, based upon available data, DON concludes that groundwater at Site 17 does not require remediation.	

BECHTEL NATIONAL INC.

CLEAN II TRANSMITTAL/DELIVERABLE RECEIPT

Contract No. N-68711-92-D-4670 **Document Control No.:** CTO-0164/0115

File Code: 02221

TO: Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Mr. Richard Selby, Code 02R.RS
Building 127, Room 112
1220 Pacific Highway
San Diego, CA 92132-5190

DATE: October 29, 1999
CTO #: 0164
LOCATION: MCAS El Toro

FROM: Thurman L. Heironimus, Project Manager

DESCRIPTION: Response to Comments on Draft Final Record of Decision for Operable Unit 2B – Sites 2 and 17 – DTD October 1999

TYPE: ____ Contract Deliverable (Cost) X CTO Deliverable (Technical) ____ Other

VERSION: N/A REVISION #: 0

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CLEAN II Program
Bechtel Job No. 22214
Contract No. N68711-92-D-4670
File Code: 02221

IN REPLY REFERENCE: CTO-0164/0115

October 29, 1999

Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Mr. Richard Selby, Code 02R.RS
Building 127, Room 112
1220 Pacific Highway
San Diego, CA 92132-5190

Subject: Response to Comments on Draft Final Record of Decision for Operable Unit 2B – Sites 2 and 17 - Dated October 1999

Dear Mr. Selby:

It is our pleasure to submit this copy of the Response to Comments on the Draft Final Record of Decision (ROD) for Operable Unit (OU) 2B – Sites 2 and 17 – for the Marine Corps Air Station (MCAS) El Toro, California. This document was prepared under Contract Task Order (CTO) 0164 and Contract No. N68711-92-D-4670 and accompanies the "Working Draft" Final ROD for Sites 2 and 17. Both documents are dated October 1999.

The FFA signatories have agreed to review the "Working Draft" Final ROD by November 12, 1999. Review of the Response to Comments by this same date will enable the DON to revise the "Working Draft" Final ROD and issue a final ROD by December 10, 1999, as agreed upon by the FFA signatories. By means of this transmittal letter, we are requesting the reviewers to submit a hard copy of their review comments and an electronic copy in Microsoft Word 97 or a compatible file to Mr. Dean Gould, BRAC Environmental Coordinator, gouldda@efdsw.navfac.navy.mil, by November 12, 1999.

We appreciate the opportunity to be of service to you on this project. If you have any questions or would like further information, please contact Jane Wilzbach at (619) 744-3029, or myself at (619) 744-3080.

Sincerely,

Thurman L. Heironimus, R.G.
Project Manager

DJT/sp

Enclosure