

N00296.000119
MOFFETT FIELD
SSIC NO. 5090.3

**RESPONSE TO AGENCY COMMENTS
DRAFT PROPOSED PLAN
FOR DELIVERY ORDER NO. 0088
LANDFILL CLOSURE OF INSTALLATION RESTORATION (IR) SITE 22
GOLF COURSE HOLES 6 AND 7
MOFFETT FEDERAL AIRFIELD
MOUNTAIN VIEW, CALIFORNIA**

DCN: FWSD-RACII-01-0068

February 9, 2001

Ms. Lynn Suer
RWQCB

Responses by:
Foster Wheeler Environmental Corporation
Pete Everds, Craig O'Rourke, Mike Cowan, Mark Losi

Comment 1. General. I am faxing a marked up copy of pages 4 and 5, indicating confusing language. Please clarify the language in the four places indicated.

Response 1. The language has been clarified as explained below (Comments 3-6).

Comment 2. General. The proposed plan should briefly describe the disposition of Topsoil Stockpiles A and B. Will they be used at Moffett? How will the soils be evaluated for reuse or disposal?

Response 2. It is clarified in the report that the topsoil and vegetation (upper 6 inches) will be stripped, mulched, and sequestered as Stockpiles A and B. The soil will be tested for geotechnical parameters and appropriate chemical parameters to determine its suitability for use as either fill/foundation material, or as soil to support vegetative cover.

Comment 3. Page 4, Paragraph 4. Minor text edit/clarification suggested.

Response 3. Agreed. The edit was made.

Comment 4. Page 4, Paragraph 6. Clarification requested of seemingly contradictory language regarding risks to the hypothetical future resident.

Response 4. The contradictory language has been clarified.

Comment 5. Page 4, Paragraph 7. Clarification was requested as to whether the statement referring to the burrowing owl population at Site 22 being healthy meant that the population was healthy, or that the individuals within the population were healthy.

Response 5. According to the risk assessment information presented in the FS, the statement refers to the burrowing owl population at Site 22. This is stated as such in the Proposed Plan, and no edit was made.

**RESPONSE TO AGENCY COMMENTS
DRAFT PROPOSED PLAN
FOR DELIVERY ORDER NO. 0088
LANDFILL CLOSURE OF INSTALLATION RESTORATION (IR) SITE 22
GOLF COURSE HOLES 6 AND 7
MOFFETT FEDERAL AIRFIELD
MOUNTAIN VIEW, CALIFORNIA**

DCN: FWSD-RACII-01-0068

February 9, 2001

Comment 6. Page 5, Paragraph 1. Clarification was requested as to which Proposed Plan had proposed squirrel abatement.

Response 6. It was clarified in the text (per EPA's recommendation as well) that the May 1999 FS and Proposed Plan had proposed squirrel abatement as the Preferred Alternative, however, because of the infeasibility of this alternative, the original March 1999 FS was adopted as the FS of record for the site.

**RESPONSE TO AGENCY COMMENTS
DRAFT PROPOSED PLAN
FOR DELIVERY ORDER NO. 0088
LANDFILL CLOSURE OF INSTALLATION RESTORATION (IR) SITE 22
GOLF COURSE HOLES 6 AND 7
MOFFETT FEDERAL AIRFIELD
MOUNTAIN VIEW, CALIFORNIA**

DCN: FWSD-RACII-01-0068

February 9, 2001

<p>Ms. Roberta Blank/David Cooper USEPA</p>	<p>Responses by: Foster Wheeler Environmental Corporation Pete Everds, Craig O'Rourke, Mike Cowan, Mark Losi</p>
<p>Comment 1. (E-mailed by David Cooper) Page 1. Alternative text was provided to replace the existing text in the 1st page.</p>	<p>Response 1. The existing text on Page 1 was replaced with the text provided by USEPA.</p>
<p>Comment 2. (E-mailed by David Cooper) Page 1. The reference to the public meeting should be formatted in caps and bolded.</p>	<p>Response 2. Agreed. The requested edits have been made.</p>
<p>Comment 3. (Comments 3-23 were provided via a marked up version of the proposed plan provided by Roberta Blank) Page 1. Paragraph 1. It was suggested that the first paragraph was too long, and minor text rearrangements were suggested.</p>	<p>Response 3. See response to USEPA Comment 1.</p>
<p>Comment 4. Page 1. It was suggested that the figure identifying the superfund process identify the current project phase.</p>	<p>Response 4. Agreed. The requested edit has been made.</p>
<p>Comment 5. Page 2. Paragraph 1. Delete EPA and RWQCB from Line 10.</p>	<p>Response 5. The requested edit has been made.</p>
<p>Comment 6. Page 2. Paragraph 4. It was requested that the kinds of waste received by the landfill be identified.</p>	<p>Response 6. The text has been modified to indicate that the landfill is believed to have received primarily domestic waste, which has been confirmed through exploratory trenching.</p>
<p>Comment 7. Figure 2. It was suggested that the figure needs more orientation, including street names and major site features.</p>	<p>Response 7. Agreed. The requested detail has been added.</p>

**RESPONSE TO AGENCY COMMENTS
DRAFT PROPOSED PLAN
FOR DELIVERY ORDER NO. 0088
LANDFILL CLOSURE OF INSTALLATION RESTORATION (IR) SITE 22
GOLF COURSE HOLES 6 AND 7
MOFFETT FEDERAL AIRFIELD
MOUNTAIN VIEW, CALIFORNIA**

DCN: FWSD-RACII-01-0068

February 9, 2001

<p>Comment 8. Page 4. Paragraph 6. It was stated that EPA prefers not to use the term “acceptable” with reference to risk, and minor rewording was suggested.</p>	<p>Response 8. The text was modified to indicate that no significant carcinogenic risks were identified for the site based on EPA’s risk assessment methodology. The risk assessment for the residential scenario indicated a slight non-carcinogenic risk, however, residential housing is not an intended future land use for the site.</p>
<p>Comment 9. Page 4. Paragraph 6. It was requested that IC’s be discussed.</p>	<p>Response 9. It has been clarified in the text that institutional controls would be used in combination with the suggested alternatives. These will include limitations on activities that may cause exposure to landfill waste.</p>
<p>Comment 10. Page 5. Paragraph 1. Rewording is suggested and alternative language is provided for clarification.</p>	<p>Response 10. The alternative language provided by EPA has been used.</p>
<p>Comment 11. Page 6. Paragraph 7. Minor text edit suggested.</p>	<p>Response 11. The suggested edit has been made.</p>
<p>Comment 12. Figure 3. It was requested that the figure show proposed monitoring wells to be monitored as part of the remedy.</p>	<p>Response 12. The locations of existing and proposed gas and groundwater monitoring wells have been shown on the figure.</p>
<p>Comment 13. Page 9. Second full paragraph. It was requested that the discussion include groundwater monitoring costs as per Alternative 1.</p>	<p>Response 13. The requested discussion has been added.</p>
<p>Comment 14. Page 9. Bottom of first column, First bullet item. Minor text clarification requested.</p>	<p>Response 14. The requested clarification has been added.</p>

**RESPONSE TO AGENCY COMMENTS
DRAFT PROPOSED PLAN
FOR DELIVERY ORDER NO. 0088
LANDFILL CLOSURE OF INSTALLATION RESTORATION (IR) SITE 22
GOLF COURSE HOLES 6 AND 7
MOFFETT FEDERAL AIRFIELD
MOUNTAIN VIEW, CALIFORNIA**

DCN: FWSD-RACII-01-0068

February 9, 2001

Comment 15. Page 9. Bottom of page, Column 2. Discuss IC's + cost.

Response 15. It has been clarified in the text that institutional controls would be used in combination with the suggested alternatives. These will include limitations on activities that may cause exposure to landfill waste. The associated costs are expected to be minimal.

Comment 16. Page 11. First full paragraph of second column. EPA has suggested that it be clarified that a biotic barrier is not a cap, and that only Alternative 3 (and not Alternative 2) will reduce mobility of contaminants.

Response 16. For clarity, the word "cap" has been replaced with barrier. It was also clarified that, with reference to Site 22, reduction in mobility refers to mobilization of contaminants to the surface by animals burrowing in the area. In this sense, both Alternatives 2 and 3 will reduce mobility of contaminants, as consistent with RAOs identified in the FS.

Comment 17. Page 11. First full paragraph, Second column. The comment states that, "reduction is thru treatment, not containment."

Response 17. Treatment is not part of this Proposed Plan. However, the text was modified to state that Alternatives 2 and 3 protect human health and the environment by addressing the identified risk at this site (mobilization of contaminants to the surface by burrowing animals), and that Alternative 4 is potentially more favorable because contaminant mass is removed.

**RESPONSE TO AGENCY COMMENTS
DRAFT PROPOSED PLAN
FOR DELIVERY ORDER NO. 0088
LANDFILL CLOSURE OF INSTALLATION RESTORATION (IR) SITE 22
GOLF COURSE HOLES 6 AND 7
MOFFETT FEDERAL AIRFIELD
MOUNTAIN VIEW, CALIFORNIA**

DCN: FWSD-RACII-01-0068

February 9, 2001

Comment 18. Page 11. Second full paragraph, Second column. Does Alternative 1 meet location specific ARARS? Please provide clarification as to as to whether all Alternatives meet the groundwater monitoring regulations of Title 27, CCR, and why Title 27 CCR landfill closure regulations and RCRA Subtitle D landfill closure requirements are not relevant and appropriate to the evaluated alternatives.

Response 18. As stated in the Proposed Plan, all of the Alternatives would meet the action-specific ARARs. For clarification, the text was modified as follows: Groundwater monitoring regulations in 27 CCR, Subchapter 3 are considered relevant and appropriate and can be met by the Preferred Alternative. However, the Title 27 CCR landfill closure regulations and the RCRA Subtitle D landfill closure requirements, as evaluated in the FS, are not both relevant and appropriate to the Preferred Alternative or to the other alternatives evaluated because a significant amount of refuse is buried below the groundwater table. This prevents effective implementation of the landfill closure requirements for minimizing infiltration of water to the waste and generation of leachate.

Comment 19. Page 11. Second full paragraph (bottom), Second column. Clarification was requested as to what are the goals of the groundwater monitoring effort.

Response 19. Text has been added to the report to clarify that groundwater monitoring will be conducted periodically to assess groundwater quality beneath the site, and to determine if conditions are changing with respect to the presence and/or migration of potential contaminants.

Comment 20. Page 12. Paragraph 6, Bottom of first column. EPA has suggested that it be clarified that the biotic barrier specified in Alternative 2 is not a cap, and will not reduce contaminant mobility.

Response 20. Please see Response to Comment 16 above.

Comment 21. Page 12. Item No. 7 (Cost), Bottom of second column. EPA has requested supporting cost documentation for review.

Response 21. The cost documentation was provided to EPA by SWDIV.

**RESPONSE TO AGENCY COMMENTS
DRAFT PROPOSED PLAN
FOR DELIVERY ORDER NO. 0088
LANDFILL CLOSURE OF INSTALLATION RESTORATION (IR) SITE 22
GOLF COURSE HOLES 6 AND 7
MOFFETT FEDERAL AIRFIELD
MOUNTAIN VIEW, CALIFORNIA**

DCN: FWSD-RACII-01-0068

February 9, 2001

Comment 22. Page 13. Table 3. It was requested that the alternatives be identified on the table.

Response 22. The requested clarification has been added.

Comment 23. Page 14. Minor edits were suggested to Glossary of Terms.

Response 23. The requested edits were made.

Comment 24. Last page. Minor edits were suggested to informational and community participation sections.

Response 24. The requested edits were made.

**RESPONSE TO AGENCY COMMENTS
DRAFT PROPOSED PLAN
FOR DELIVERY ORDER NO. 0088
LANDFILL CLOSURE OF INSTALLATION RESTORATION (IR) SITE 22
GOLF COURSE HOLES 6 AND 7
MOFFETT FEDERAL AIRFIELD
MOUNTAIN VIEW, CALIFORNIA**

DCN: FWSD-RACII-01-0068

February 9, 2001

<p>Mr. Don Chuck NASA</p>	<p>Responses by: Foster Wheeler Environmental Corporation Pete Everds, Craig O'Rourke, Mike Cowan, Mark Losi</p>
<p>Comment 1. Page 1. Paragraph 1. Replace "Moffett Federal Airfield" to "former Naval Air Station, Moffett Field."</p>	<p>Response 1. The requested edits were made.</p>
<p>Comment 2. Page 2. Site History. Paragraph 1. Clarifications/corrections requested and information provided as to former operations conducted at the site.</p>	<p>Response 2. The information was corrected and clarified as requested.</p>
<p>Comment 3. Page 2. Site History. Paragraph 4. Corrections requested to clarify former operations, and that burrowing owls do not actually dig their own burrows, and therefore do not uncover trash.</p>	<p>Response 3. The requested edits were made.</p>
<p>Comment 4. Page 5, Paragraph 1 (Paragraph 2 of Feasibility Study). Clarify that the Navy was mostly responsible for declaring that ground squirrel abatement was infeasible.</p>	<p>Response 4. The requested clarification has been made.</p>
<p>Comment 5. Page 6, Alternative 2 With reference to the statement that "squirrels typically burrow only in low maintenance or low activity areas," NASA states that several squirrel burrows were recently observed in the fairways, and suggests that the biotic barrier may be desirable on the fairways.</p>	<p>Response 5. Construction of the biotic barrier is proposed in general accordance with the FS. If squirrel burrows are deemed to be a problem in other areas of the landfill (including fairways), expansion of the biotic barrier or waste consolidation (landfill footprint reduction) will be considered during development of the remedial design.</p>
<p>Comment 6. Page 9. Alternative 3. Paragraphs 2 and 4. NASA notes that the implementation of Alternatives 2, 3A, and 3B will all cause major changes in landscaping and aesthetics, to essentially the same degree.</p>	<p>Response 6. The report already indicates that major changes in landscaping and aesthetics would be caused by Alternatives 2, 3A and 3B that differ based mainly on areal extent of the proposed efforts.</p>

**RESPONSE TO AGENCY COMMENTS
DRAFT PROPOSED PLAN
FOR DELIVERY ORDER NO. 0088
LANDFILL CLOSURE OF INSTALLATION RESTORATION (IR) SITE 22
GOLF COURSE HOLES 6 AND 7
MOFFETT FEDERAL AIRFIELD
MOUNTAIN VIEW, CALIFORNIA**

DCN: FWSD-RACII-01-0068

February 9, 2001

Comment 7. Page 11. Alternative 4. Paragraph 3. NASA states that all alternatives include removal of trees, and that tree removal should not be considered as a difference among the alternatives.

Response 7. It is stated in the explanations of Alternatives 2, 3A, 3B, and 4 that all alternatives include removal of trees to slightly varying degrees (Pages 9-11). Removal of trees was not intended to be used as a difference between the alternatives, has not been used as such. However, it is correctly noted that Alt 4 will allow for replacement of trees.

Comment 8. Page 11. Evaluation of Alternatives. Point 1. Alternative 2 is described as capping, but it actually is, and should be described as, a biotic barrier.

Response 8. Agreed. See USEPA comment 16 (above), and accompanying response.

Comment 9. Page 12. 4. Short Term Effectiveness. Paragraph 2. NASA disagrees with the assertion that Alternative 2 will cause less disturbance to site vegetation and golf-course aesthetics than the other alternatives, since tree removal and topography changes will occur with all alternatives, and that with Alternative 4, trees can be replaced.

Response 9. The comment is well noted, however, the Short-Term Effectiveness criterion is intended to be evaluated with respect to "effects on human health and the environment during the implementation of the remedial action" (USEPA. 1988. Guidance for conducting remedial investigations and feasibility studies under CERCLA). In the discussion referenced by NASA (Short Term Effectiveness), the first paragraph outlines the major reason that Alternative 2 is most favorable in this regard. This is basically that the potential for adverse human health impacts will be less for Alternative 2 because less time and disturbances are associated with implementation. However, differences in the potential for adverse environmental impacts (including disturbances to vegetation, aesthetics and topography) may be over stated in Paragraph 2, and the language has thus been toned down.

**RESPONSE TO AGENCY COMMENTS
DRAFT PROPOSED PLAN
FOR DELIVERY ORDER NO. 0088
LANDFILL CLOSURE OF INSTALLATION RESTORATION (IR) SITE 22
GOLF COURSE HOLES 6 AND 7
MOFFETT FEDERAL AIRFIELD
MOUNTAIN VIEW, CALIFORNIA**

DCN: FWSD-RACII-01-0068

February 9, 2001

Comment 10. Page 12. 6. Implementability. NASA states that differences in material requirements are not that significant between Alternatives 2 and 3. A drainage layer is not always required of a landfill cap, and if required for Alternative 3, it should also be required of Alternative 2. It is suggested that Alternatives 2 and 3 be considered favorable, and Alternative 4 be considered least favorable.

Response 10. Alternative 2 does not have a low-permeability barrier layer/liner that would pond water or make the cover soil saturated. Barrier layers/liners should not exceed 1 foot of headwater over the liner. Alternative 3 would require a drainage layer, in addition to a minimum 2-foot foundation layer required to support a low permeability barrier layer. This would almost double the import soil volume needed for construction of Alternative 3. Alternative 3 also incorporates a larger area for total landfill coverage. Therefore Alternative 2 is more favorable with respect to implementability.

**RESPONSE TO AGENCY COMMENTS
DRAFT PROPOSED PLAN
FOR DELIVERY ORDER NO. 0088
LANDFILL CLOSURE OF INSTALLATION RESTORATION (IR) SITE 22
GOLF COURSE HOLES 6 AND 7
MOFFETT FEDERAL AIRFIELD
MOUNTAIN VIEW, CALIFORNIA**

DCN: FWSD-RACII-01-0068

February 9, 2001

Comment 11. General Comments.

1. NASA states that either Alternative 2 or 3 are favorable for Site 22 except for cost. Consideration should be given to Alternative 3 as the preferred alternative. The major difference is mainly with cost.
2. Capping the landfill or modifying the biotic barrier to include the fairways will be more effective at stopping burrowing animals from exposing trash.
3. In addition to capping, consideration should be given to removing thin waste layer in Fairway 3 and placing it with the majority of Site 22 waste (consolidation). This would reduce the footprint of the site.
4. The proposed plan should also indicate if the golf course playing area would be restored.
5. The proposed biotic barrier appears to be overkill. A smaller barrier could be effective such as a layer of compacted aggregate base covered with topsoil should be effective. The cobble bed with concrete slurry appears excessive and therefore is more costly.
6. Finally, addition of artificial owl burrows should be part of the final design to replace burrows lost to remedial action. This has been done successfully at the NAS Lemoore landfill remediation.

Response 11. Individual responses given below.

1. As noted above (Response to NASA Comments 9 and 10) and in the proposed plan, Alternative 2 is also more favorable than Alternative 3 in terms of short- term effectiveness, as well as implementability.
2. Please refer to Response to NASA Comment 5 above.
3. Please refer to Response to NASA Comment 5 above.
4. The current plan involves only disturbances to "rough" areas. The Proposed Plan will be revised to clarify that any disturbed areas will be restored.
5. An 18-inch layer of material, with cobbles that are at least 1.5 times the body weight of the animal of interest is generally required to prevent the animals from moving the material. For the proposed alternative, the layer will be limited to 12 inches and will include a slurry seal to combine cobbles into larger masses. In addition, 6 inches of gravel will be added to act as a drainage layer and a capillary break.
6. This will be considered in the final design.

FOSTER WHEELER

FOSTER WHEELER ENVIRONMENTAL CORPORATION

TRANSMITTAL/DELIVERABLE RECEIPT FWSD - RACII -

Contract No. N44255-95-D-6030

Document Control No. 01-0068

File Code: 5.0

TO: Contracting Officer
 Naval Facilities Engineering Command
 Southwest Division
 Mr. Richard Lovering, 02R1.RL
 1220 Pacific Highway
 San Diego, CA 92132-5190

DATE: 02/09/01

DO: 0088

LOCATION: Moffett Fed. Airfield

FROM: Neil Hart (For)
 Neil Hart, Program Manager

DESCRIPTION: Response to Comments on Draft Proposed Plan for Landfill Closure of Installation Restoration (IR) Site 22 Golf Course Holes 6 and 7, 02/0901

TYPE: Contract/Deliverable DO Deliverable Notification
 Other

VERSION: n/a REVISION #: n/a
 (e.g. Draft, Draft Final, Final, etc.)

ADMIN RECORD: Yes No Category Confidential
 (PM to Identify)

SCHEDULED DELIVERY DATE: 02/09/01 ACTUAL DELIVERY DATE: 02/09/01

NUMBER OF COPIES SUBMITTED: 0/6C/7E

COPIES TO: (Include Name, Navy Mail Code, and Number of Copies)

NAVY:	FWENC:	OTHER: (Distributed by FWENC)
<u>A. Muckerman (06CHAM)</u>	<u>M. Schneider</u>	_____
<u>O/IE</u>	<u>C. O'Rourke</u>	_____
<u>R. Blair (06CARB) 1C/1E</u>	<u>P. Everds</u>	_____
<u>W. Doctor (5NEN) 1C/1E</u>	<u>M. Cowan</u>	_____
<u>M. Parker (06CTMP) 1C/1E</u>	<u>M. Losi</u>	_____
<u>D. Silva (4MGDS) 2C/2E</u>	_____	Date/Time Received
<u>Basic Contract File (02R1)</u>	_____	
<u>1C/1E</u>	_____	



FOSTER WHEELER ENVIRONMENTAL CORPORATION

February 9, 2001
FWSD-RACII-01-0068
5.0

Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Attn: Ms. Andrea Muckerman (06CHAM)
1220 Pacific Highway
San Diego, CA 92132-5190

**SUBJECT: RESPONSE TO COMMENTS ON DRAFT PROPOSED PLAN FOR
LANDFILL CLOSURE OF INSTALLATION RESTORATION (IR) SITE
22 GOLF COURSE HOLES 6 AND 7, DELIVERY ORDER 0088,
MOFFETT FEDERAL AIRFIELD, MOUNTAIN VIEW, CA**

Reference: Contract N44255-95-D-6030, Environmental Remedial Action Contract
For Sites in Washington, Oregon, Idaho, Montana, and Alaska

Dear Ms. Muckerman:

Enclosed are the Response to Comments to the Draft Proposed Plan for the Landfill Closure of IR Site 22 at Moffett Federal Airfield, Mountain View, California. The responses will be incorporated into the Draft-Final Proposed Plan scheduled for submittal on March 9, 2001. If you have any questions or require additional information, please contact me at (619) 471-3504.

Sincerely,

Pete Everds
Project Manager

Enclosures Response to Comments

PE:jls

