

**RESPONSES TO REGULATORY AGENCY COMMENTS ON
DRAFT REMEDIAL ACTION PLAN/RECORD OF DECISION FOR
INSTALLATION RESTORATION SITE 17,
FORMER MARE ISLAND SHIPYARD, SOLANO COUNTY, CALIFORNIA**

This document presents the U.S. Department of the Navy's (Navy) responses to comments from the California Department of Toxic Substances Control (DTSC), and the California Regional Water Quality Control Board (Water Board) on the "Draft Remedial Action Plan/Record of Decision for Installation Restoration (IR) Site 17, Former Mare Island Shipyard, Vallejo, California." The Navy received the comments addressed as follows from DTSC on July 20, 2006, and from the Water Board on August 30, 2006.

RESPONSES TO DTSC COMMENTS (Comments Provided by Rizgar A. Ghazi, P.E.)

GENERAL COMMENTS

1. **Comment:** Site Status: The RAP should give a brief discussion whether other cleanup programs exist within the Investigation Restoration Site (IR) 17 such the PCB program and Munitions Response Actions [sic]. Provide a status of each program and anticipated completion of these programs.

Response: The Remedial Action Plan/Record of Decision (RAP/ROD) for Installation Site 17 (IR17) currently provides a summary of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) investigations in Section 2.2.2.1 and Table 2-1, as well as Community Environmental Response Facilitation Act (CERFA) investigations in Section 2.2.2.3 and Table 2-2. Twelve CERCLA investigations, including the basewide polychlorinated biphenyl (PCB) confirmation sampling, plus two CERFA investigations are summarized. Munitions Response Program (MRP) actions are not discussed because there are no MRP areas or actions associated with the IR17 area.

2. **Comment:** Risk Management Range: The RI Report states that the risks between one in ten thousand (10^{-4}) and one in one million (10^{-6}) is in the risk management range and risk management decisions or an evaluation of remedial or removal action alternatives may not be warranted.

DTSC policy is that a remedy resulting in cumulative site risk of lower than or equal to 10^{-6} is acceptable for unrestricted use. A remedy resulting in a cumulative site risk between 10^{-6} and 10^{-4} may be acceptable, with justification acceptable to DTSC, for unrestricted use. Each remedy proposed within that risk range must be evaluated individually to ensure that it is acceptable with regard to human

health and the environment. The individual risks of all the contaminants of concern are used to calculate the cumulative risk for a site. DTSC is conservative in making risk management decisions, and requires substantial justification to accept a cumulative site risk of more than one in one million (10^{-6}).

Additional evaluation and justification is required for sites that have risks that fall within the risk range 10^{-6} and 10^{-4} . Depending on the evaluation, remediation measures may be required for the protection of the human health. Unless substantial justification is provided for DTSC review and acceptance, the RAP should address the risks posed by the site. Please remove any text suggesting that no remedial action is needed for human health that risk in the 10^{-6} and 10^{-4} risk range.

Response: The associated text has been revised to state that there is risk within the risk management range for the current and planned industrial use of the site. Since a remedial action is proposed for IR17, the Navy will complete a post-remediation HHRA. If the results of the HHRA indicate site risks are not less than or equal to 10^{-6} , but instead fall within the risk range, the Navy will prepare additional evaluation and justification for its risk management decisions. Specifically, the Navy will consider the provisions of the National Contingency Plan (NCP), at 40 *Code of Federal Regulations* (CFR) 300.430(e)(2)(i)(A), which describe how ARARs and five other factors should be used to develop "acceptable exposure levels that are protective of human health and the environment." The second factor (40 CFR 300.430(e)(2)(i)(A)(2)) addresses the acceptable exposure levels for known or suspected carcinogens:

"(2) For known or suspected carcinogens, acceptable exposure levels are generally concentration levels that represent an excess upper bound lifetime cancer risk to an individual of between 10^{-4} and 10^{-6} using information on the relationship between dose and response. The 10^{-6} risk level shall be used as the point of departure for determining remediation goals for alternatives when ARARs are not available or are not sufficiently protective because of the presence of multiple contaminants at a site or multiple pathways of exposure;"

In accordance with the NCP, preliminary remediation goals for carcinogens will be set at a 10^{-6} excess cancer risk as a point of departure, but may be revised to a different risk level within the acceptable risk range based on the consideration of the appropriate factors including but not limited to exposure factors, uncertainty, and technical limitations (NCP preamble at 55 Federal Registry 8717, March 8, 1990). When there is a high level of confidence that the cancer risks are representative of the site conditions, then decisions at the 10^{-4} risk level may be acceptable. The purpose of this Point of Departure Analysis will be to show that there is a

high level of confidence that the Site 17 post-remediation HHRA results are representative of site conditions and can be used to support risk management decisions in the risk range.

SPECIFIC COMMENTS

1. **Comment:** Section 1.3, Assessment of the Site, Page 1-1: The text states "Other pathways for which risk to human health was estimated did not show levels of risk requiring action." This sentence is misleading as the calculated risk for the human health is greater than for both residential and the industrial setting. The risk management range discussed in the latter part of report suggests that additional actions would not be necessary since the risks falls within the risk management range. As discussed in the general comments, DTSC does not agree with the Navy's assumption that risk between 10^{-4} and 10^{-6} are acceptable. DTSC requires substantial justification be provided during the evaluation in the Feasibility Study stage of the site investigation. This section should be revised to state the Human Health Risk Assessment (HHRA) could not quantify all risk due to the lack of an available model to analyze the effect of Volatile Organic Compounds in the indoor air pathway and the continued presence of free product at the site may pose unacceptable risk at the site.

Response: The sentence in Section 1.3 quoted in the comment has been revised to state: "Other pathways for which risk to human health was estimated in the HHRA, showed levels of risk within the risk management range for the current and planned industrial use of the site." As explained in the response to DTSC General Comment No. 2 above, if the post-remediation HHRA indicates site risks fall within the risk range, the justification requested will be provided in an analysis of the point of departure.

With respect to DTSC's additional Section 1.3 revision request regarding the HHRA and unacceptable risk, the Navy believes the second and the fifth sentences of the first paragraph already address this issue:

"The remedial investigation (RI) and associated human health risk assessment (HHRA) at IR17 could not quantify all risk at the site due to the lack of an available model to analyze the effect of VOCs in the indoor air pathway for the present site conditions." ... "Non-aqueous phase liquid (NAPL) was also observed at the site and could represent a continuing source of soil and groundwater contamination that may pose unacceptable risks for the current and future land use."

2. **Comment:** Section 1.4, Description of the Selected Remedy, Page 1-3: The text states "Based on all reports and risk assessments completed to date, no risk is associated with the current use and conditions of the site;"

This statement is misleading since it leads the reader to believe that the site is currently being used and there is no risk to current occupants. Since there are no occupants at the site, no amount of risks will impact the health of the non-existing occupants.

Please remove this statement from this section and any other areas of the report where it is made.

Response: The sentence in Section 1.4 quoted in the comment has been revised to state: "The remedial investigation (RI) and associated human health risk assessment (HHRA) at IR17 could not quantify all risk at the site due to the lack of an available model to analyze the effect of volatile organic compounds (VOC) in the indoor air pathway for present site conditions. Other pathways for which risk to human health was estimated in the HHRA, showed levels of risk within the risk management range for the current and planned industrial use of the site."

3. Comment: Section 1.7, Authorizing Signatures, Page 1-5: Please revise DTSC's signature block as follows:

Mr. Anthony J. Landis
OMF Branch Chief
California Environmental Protection Agency
Department of Toxic Substances Control

Response: The signature block has been revised as requested.

4. Comment: Section 2.1.2, Site Location, Page 2-1: The text refers the reader to Figure 2-2 for the location of IR17. Figure 2-2 is useful as it provides a view of the site in relation to other sites at Mare Island. However, the figure shows IR 17 in two geographical locations separated by another site (investigation area EETP). This must be a mistake as Figure 2-3 shows a different site boundary. Please resolve the discrepancy and provide an accurate boundary for IR17.

Response: Figure 2-3 shows the correct boundary since part of IR17 is within the Eastern Early Transfer Parcel (or EETP). The site boundary shown on Figure 2-2 has been revised to be consistent with the boundary shown on Figure 2-3.

5. Comment: Section 2.4, Scope and Role of Operable Unit or Response Action, Page 2-16: The text states "Other pathways for which risk to human health was estimated did not show levels of risk requiring action." This statement is inaccurate as the calculated risk to human in the HHRA does indicate risks greater than 10^{-6} . Please delete the sentence.

Response: The sentence in Section 2.4 quoted in the comment has been revised to state: "Other pathways for which risk to human health was estimated in the HHRA, showed levels of risk within the risk management range for the current and planned industrial use of the site."

6. **Comment:** Section 2.8, Remedial Action Objectives, Page 2-33: The Text states that there are no RAOs for protection of human health (since the human risk falls with the risk management range). The RAP presupposes that since the risk is between one in ten thousand (10^{-4}) and one in one million and within the U.S. EPA risk management range no remedial actions is necessary. DTSC disagrees with this approach. As discussed in the general comments, DTSC requires that a remedial action be considered unless substantial justification is provided including risk management measures are set in place to eliminate the additional risks. RAOs for human health must be established unless justification is provided.

Response: The remedial action objective (RAO) for IR17 is to remove free product to the maximum extent practicable. Additional RAOs for human health protection were not developed for five reasons:

1. The RI and associated HHRA at IR17 could not quantify all risk at the site due to the lack of an available model to analyze the effect of VOCs in the indoor air pathway for present site conditions.
2. Other pathways for which risk to human health was estimated in the HHRA, showed quantifiable levels of risk within the risk management range for the current and planned industrial use of the site.
3. Reducing the volume of VOCs present in the light nonaqueous-phase liquids (LNAPL) will reduce the overall risk and the uncertainty in the risk estimates for this site.
4. The proposed approach is intended to result in site conditions that will result in the post-remediation HHRA to quantify all risks including the indoor air pathway.
5. This approach was presented and agreed to in the approved feasibility study for this site.

As explained in the response to DTSC General Comment No. 2 above, if the post-remediation HHRA indicates site risks fall within the risk range, the justification requested will be provided in an analysis of the point of departure.

7. **Comment:** Section 2.8 Remedial Action Objectives, Page 2-33: Under the Human Health Protection subsection, the text states that the risks for the commercial/industrial worker are within the risk management range and hence no RAOs were developed. As discussed in our above comments, DTSC disagrees with the Navy assumption that no additional concern would exist at the site. The report should discuss in detail how the risks will be managed without developing RAOs.

Response: Please see our response to DTSC specific comment 6.

8. **Comment:** Section 2.10.2, Long-Term Effectiveness and Permanence, Page 2-38: The text states that no risk is associated with the current use and conditions at the site. This statement is misleading. This statement is only accurate at the present time since the site is not occupied and not in use. The calculated risk for the human health in the HHRA provides that risks greater than 10^{-6} exist for proposed reuse scenario.

Response: The text in Section 2.10.2 has been revised to state: "The remedial investigation (RI) and associated human health risk assessment (HHRA) at IR17 could not quantify all risk at the site due to the lack of an available model to analyze the effect of volatile organic compounds (VOC) in the indoor air pathway for present site conditions. Other pathways for which risk to human health was estimated in the HHRA, showed levels of risk within the risk management range for the current and planned industrial use of the site."

9. **Comment:** Section 2.10.9, Conclusions, Page 2-40: The first sentence of the report states that the HHRA did not show levels of risk requiring action. As discussed above, DTSC disagrees with this conclusion. Please revise or delete the sentence to accurately state the risks at the site.

Response: The text in Section 2.10.9 has been revised to state: "Although the conclusions of the HHRA showed levels of risk within the risk management range, the HHRA could not quantify all risk at the site due to the lack of an available model to analyze the effect of VOCs in the indoor air pathway for the current and planned industrial use of this site."

10. **Comment:** Section 2.12, Selected Remedy, Page 2-42: Text should be added to the first bullet to include the preparation of the past remedial action human health risk assessment (HHRA) as part of the selected remedy. Table 2-7 should be revised also to include the cost of preparing the HHRA.

Response: Text has been added to the first bullet to state that a post-remediation HHRA will be completed. The costs for the post-remediation HHRA and reporting are included as part of the design costs per the feasibility study (SulTech 2006b).

11. **Comment:** Section 2.12.3, Institutional Controls, Page 2-45: In addition to the listed items for Institutional controls, please add the prohibition of schools, child care facilities, playgrounds and other sensitive uses.

Response: A bullet has been added to the third paragraph of Section 2.12.3 stating:

- *“Restrict use of the property for schools, child care facilities, playgrounds, and other child sensitive uses.”*

12. **Comment:** Section 2.12.3, Institutional Controls, Page 2-45: This section should include text to state the responsible party for implementing, maintaining, reporting on, and enforcing the land use controls. If it is planned that a third party, other than the Navy, (is) to maintain the IC, then costs incurred by (that) third party should be included as part of the overall(cost)of the cleanup.

Response: Specific details of the remedial design, such as the implementation of LUCs, and roles and responsibilities will be presented in the remedial design plan and will be issued to the regulatory agencies for comment. This is consistent with the “Navy Principles and Procedures for Specifying, Monitoring, and Enforcement of Land Use Controls and Other Post-ROD Actions” which says LUC implementation issues should be addressed in the remedial design and not in the ROD (Navy 2004). Although this is part of an agreement between the Navy and the U.S. Environmental Protection Agency (EPA), DTSC has agreed to this approach for RAP/RODs at Tustin, El Toro, and Alameda Point.

13. **Comment:** Section 2.13.1, Protection of Human Health and the Environment, Page 2.46: Please add the following language to this section “Land use controls (LUC) will be prepared as the LUC of the Remedial Design. Within 90 days of the RAP/ROD signature, the Navy shall prepare and submit to DTSC and the U.S. EPA for review and approval a LUC remedial design that shall contain the implementation and maintenance actions, including periodic inspections.”

Response: The Navy intends to follow the time periods agreed upon in the Site Management Plan, Mare Island, California (SuTech 2006c). The remedial design for IR17 will include the removal of LNAPL at the site and implementation of LUCs.

14. **Comment:** Section 2.13.1, Protection of Human Health and the Environment, Page 2-46: Please add the following language to this section “Any activity that is inconsistent with the LUC objectives or use restrictions, or any other action that may interfere with the effectiveness of the ICs will be addressed by the Navy as soon as

practicable, but in no case will the process be initiated later than 10 days after the Navy becomes aware of the breach.

Response: Please see the response to DTSC Specific Comment No. 12.

15. **Comment:** Section 2.13.1, Protection of Human Health and the Environment, Page 2-46: Please add the following language to this section “The Navy will notify DTSC and the U.S. EPA as soon as practicable but on longer than ten (10) days of sending DTSC and U.S. EPA notification of the breach.”

Response: Please see the response to DTSC Specific Comment No. 12.

16. **Comment:** Section 2.13.1, Protection of Human Health and the Environment, Page 2-46: Please add the following language to this section “Monitoring of the environmental use of restrictions and controls will be conducted annually by the Navy. The monitoring results will be included in a separate report or as a section of another environmental report, if appropriate, and provided to DTSC and the U.S. EPA. The annual monitoring reports will be used in preparation of the Five Year Review to evaluate the effectiveness of the remedy.”

Response: Please see the response to DTSC Specific Comment No. 12.

RESPONSES TO WATER BOARD COMMENTS (Comments Provided by Brian Thompson)

GENERAL COMMENTS

1. **Comment:** We concur with the removal of NAPL (free product) from the subsurface to the "maximum extent practical," in accordance with 40 CFR Section 280.64. To achieve this goal, it should be realized that the extent of free product shown on Figure F-1, for the target excavations, is based on available data and is therefore limited. From a practical standpoint, it is reasonable to assume that:

- a. there may be a subsurface connection between the isolated occurrences of free product, particularly along Azuar Drive
- b. free product may extend beneath the area of the former above ground storage tanks, which is thought to be a release site
- c. free product may extend further in the direction of groundwater flow, which is thought to be towards the north, reportedly between the northeast and northwest

In the interest of achieving the goal of removing free product to the maximum extent practical, excavation plans should include contingencies to continue source removal beyond the areas shown on Figure F-1, if necessary, based on field observations.

Response: IR17 has been investigated extensively as described in the Final RI report (SulTech 2006a). The Navy detected small amounts of LNAPL and established suspected areas where LNAPL might be present based on the extensive data collected at the site. These areas include the utility corridors along Azuar Drive, the area of the former aboveground storage tanks, and areas where contamination could have potentially migrated. The Navy believes that the inferred areas where LNAPL might be encountered are accurate and does not believe that LNAPL will be encountered or has migrated to other areas. However, if field observations indicate LNAPL beyond the planned excavation areas, the Navy will make every reasonable effort to remove this material during this remedial action.

2. **Comment:** Following removal (of) the free product, a contaminant source, the effectiveness of the removal action should be evaluated along with threats to human health and the environment from residual impacts. The evaluation should be based on the applicable or relevant and appropriate requirements (ARARs) of the State of California that are listed in the subject document. We understand that the United States Navy does not necessarily agree with the State ARARs and that no attempt was made in the subject document to resolve this issue.

Since the RAP/ROD does not sufficiently address pollution by total petroleum hydrocarbons (TPH) or pollution of groundwater in accordance with the State ARARs, we request that TPH and groundwater pollution either be included in the RAP/ROD or that it be addressed under a separate corrective action plan (CAP) that is acceptable to the Executive Officer.

Response: It is the Navy's position that State Water Resources Control Board Resolutions 92-49 and 68-16 are not ARARs. The Navy and Water Board have "agreed to disagree" on this issue. The Navy's position and the Water Board's position are documented in Section 2.13.2 of the RAP/ROD.

TPH contamination will be addressed in the CAP for IR17.

3. **Comment:** As mentioned in our comments on the feasibility study¹, we will consider no further action for IR17 if it is demonstrated that residual concentrations (following source removal activities) do not:

- a. threaten human health and the environment
- b. are not migrating, and
- c. are receding by naturally occurring processes such that water quality objectives will be attained within a reasonable time frame.

Our evaluation of threats to the environment will consider fate and transport analysis and the screening-level ecological risk assessment (ERA) for the IR17 site. This letter does not comment on the fate and transport analysis or the screening-level ERA since the RAP/ROD did not contain sufficient information to evaluate their adequacy.

Response: Additional information on the fate and transport analysis and screening-level ERA completed for IR17 is included in the Final RI report (SulTech 2006a).

4. **Comment:** The RAP/ROD should clarify whether dense NAPL (DNAPL) has been detected at IR17 or in the Building 503 vicinity. Portions of the RAP/ROD generically discuss the presence of NAPL. Since solvents have been detected at the site, please clarify discussions of NAPL and report if any DNAPL has been detected.

Response: DNAPL has not been detected at IR17. The free product encountered at IR17 is composed of ethylbenzene and xylene. Since these contaminants

¹ "Comments on Technical Report – Feasibility Study, Installation Restoration Site 17, Bldg 503 Area, Investigation Area A1, Mare Island, Vallejo, California," letter dated January 19, 2006.

are lighter than water, this is considered LNAPL. The text has been corrected to consistently refer to the free product as LNAPL.

5. **Comment:** We concur with comments by the Department of Toxic Substances Control² that a 10^{-6} cancer risk shall be the point of departure for determining remediation goals. This risk level is in accordance with 40 C.F.R. 300.430(e)(2)(i)(A)(2)[sic].

Response: Please see the response to DTSC General Comment No. 2.

OTHER COMMENTS

1. **Comment:** The authorized signature for the San Francisco Bay Regional Water Quality Control Board, for the purposes of a RAP/ROD should be changed from Brian Thompson to the Executive Officer [Section 1.7].

Response: The signature block has been revised as requested.

2. **Comment:** Suspected UST sites 503-1 and 503-2 at IR17 are open according to our records. The United States Navy has requested no further action for these sites since the USTs have not been located. Based on information provided in the RAP/ROD, additional information may need to be presented to the Water Board or additional efforts may need to be conducted to determine if a UST is present at the site and if TPH impacts detected at the site are associated with a UST release [Sections 2.2.1 and 2.5.3.1]:

- a. A UST was reportedly installed at the site which stored gasoline fuel.
- b. TPH quantified as gasoline (TPHg) has been detected in soil at concentrations up to 49,000 milligrams per kilogram in soil. The presence of TPH is interpreted from gas chromatograms as petroleum (mineral) spirits based on plots which apparently show heavier-end TPHg (carbon range C6 to C12) and lighter-end TPH of the diesel range (carbon range C9 to C25). This type of gas chromatogram plot could also represent weathered gasoline fuel.
- c. Benzene and ethylbenzene are known constituents of gasoline fuels. These constituents have been detected at the site and are not directly connected with paint manufacturing operations (which reportedly used other constituents of gasoline fuel such as toluene and xylenes).

² Department of Toxic Substances Control letter, "Draft Remedial Action Plan/Record of Decision for Installation Restoration Site 17, Former Mare Island Shipyard, Solano, County," dated July 20, 2005.

Response: The Navy received a no further action letter from Water Board for underground storage tank (UST) Sites 503-1 and 503-2, dated April 28, 2006. As discussed in the response to Water Board General Comment 2, TPH contamination at IR17 will be addressed under the CAP for the site. The Navy believes that the BTEX (benzene, toluene, ethylbenzene, and xylene) compounds detected at the site are a result of paint manufacturing operations. The LNAPL detected at the site in the area of the former pipeline connecting the two former tank farms consists of ethylbenzene and xylene, both BTEX compounds.

3. **Comment:** We do not concur that a site-wide assessment for evaluating vapor exposure is necessarily protective of human health. The document states that "all vapor exposures were assessed on a site-wide basis because no rationale currently exists that assumes exposure would occur in any specific area." The rationale for conducting a location-specific analysis is that exposure can occur in any given area and should therefore be protective of all areas. Results of the location-specific exposure assessment need to be included in the subject document [Section 2.7.1.5].

Response: The RI and associated HHRA at IR17 could not quantify all risk at the site due to the lack of an available model to analyze the effect of VOCs in the indoor air pathway for present site conditions. The feasibility study for IR17 did not develop risk based RAOs, but used removal of free product to the maximum extent practicable as the RAO. Reducing the volume of VOCs present in the LNAPL will reduce the overall risk and the uncertainty in the risk estimates for this site.

After the remedial action for IR17, the Navy will complete a post-remediation HHRA. If the results of the HHRA indicate site risks are not less than or equal to 10^{-6} , but instead fall within the risk range, the Navy will prepare additional evaluation and justification for its risk management decisions.

4. **Comment:** The RAP/ROD presents a remedial approach but does not provide specific information on how effectiveness of the remedial action will be evaluated. Specific procedures and performance should be included in the RAP/ROD. Use of the existing well network to evaluate effectiveness of the source removal needs to be justified; it is not necessarily an appropriate measure of effectiveness. We recommend that monitoring to evaluate effectiveness of the remedial action be conducted on a quarterly basis, for at least a year, so that changes in subsurface conditions can be more effectively observed [Sections 2.10.2, 2.12. and 2.12.2].

- Response: Based on the extensive data collected at the site, the Navy believes that yearly monitoring of wells from the existing network after the remedial action is completed will adequately evaluate the effectiveness of the remedial action. Soil confirmation samples will also be collected during the remedial action. However, specific details of the remedial action will be presented in the remedial design plan and will be issued to the regulatory agencies for comment.
5. **Comment:** The plan for soil excavation includes sloping sidewalls of excavations. Limits, or boundaries, of the target excavations should correspond to the base of the sloped sidewalls [Section 2.12.1].
- Response: Specific details of the remedial action will be presented in the remedial design plan and will consider this comment.
6. **Comment:** The removal action proposes excavation to 6 inches below the “water table” to remove the smear zone. We concur that excavations should target removal of the smear zone. To achieve this goal, excavations should extend 6 inches below the lowest groundwater elevation based on data from monitoring wells in the vicinity of planned excavations. We recommend that excavations be controlled based on this groundwater elevation. Excavations that are controlled based on depth measurements (as opposed to elevations) and field observations of groundwater may not remove the smear zone to the maximum extent practical. In addition, planning excavation activities for the dry season, in and of itself, does not assure that the smear zone will be removed [Section 2.12.1].
- Response: Specific details of the remedial action, such as the planned depth of excavation, will be presented in the remedial design plan and will be issued to the regulatory agencies for comment. Excavation depths will also be confirmed in the field as the remedial action progresses to ensure removal of the smear zones in areas where LNAPL is encountered.
7. **Comment:** We request an opportunity to observe excavations before they are backfilled and would like to be notified at least 24 hours prior to backfilling each excavation [Section 2.12.1].
- Response: The Navy will notify the Water Board as requested.
8. **Comment:** We request that wording regarding the longevity of institutional controls be changed to the following sentences. Institutional controls will remain in place as long as land use is restricted. Removal of land-use restrictions requires approval by regulatory agencies [Section 2.12.3].

Response: The last sentence of the first paragraph of Section 2.1.2. has been deleted because, in accordance with the Navy LUC principles, specific details of the remedial action, such as the procedures for modifying or terminating land use controls will be presented in the remedial design plan and will be issued to the regulatory agencies for comment subsequent to finalization of the ROD.

9. **Comment:** We have the following comments on statements made regarding beneficial uses of groundwater under our Basin Plan. We concur that shallow groundwater should not be considered a source of drinking water because it does not meet the definition in State Resolution 88-63. Resolution 88-63 does not use the term "exemption." We understand that there are limits for use of the shallow groundwater for other purposes, such as industrial and agricultural, but we are not comfortable with the statement that the shallow groundwater is unsuitable for all industrial and agricultural purposes [Section 2.13.2.1].

Response: The Navy acknowledges that Resolution 88-63 does not use the term "exemption." It states that all surface and ground waters of the State are considered to be suitable, or potentially suitable, for municipal or domestic water supply "with the exception" of surface and groundwater where total dissolved solids exceed 3,000 milligrams per liter, or there is contamination that cannot reasonably be treated for domestic use using either Best Management Practices or best economically achievable treatment practices, or the water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day. The RAP/ROD has been changed in accordance with the language of the resolution.

As stated in the RAP/ROD, the Navy used federal groundwater quality criteria to assess whether groundwater at IR17 is a potential source of drinking water (EPA 1998) and concluded that groundwater has no beneficial uses, including for industrial and agricultural purposes. The Water Board's position is noted.

10. **Comment:** The statement that State Resolution 68-16 applies to new discharges and is not intended for the restoration of already degraded waters is not correct. The second qualifying statement of the resolution is: "WHEREAS water quality control policies have been and are being adopted for waters of the State." Water control policies include the Basin Plan and State Resolution 92-49, which both discuss restoration of degraded waters. It is our position that State Resolutions 68-16 and 92-49 and the Basin Plan are all State ARARs and are applicable to the RAP/ROD [Section 2.13.2.1].

Response: The Navy interprets State Water Resources Control Board Resolution 68-16 to be prospective in intent. It is the Navy's position that Resolutions 92-49 and 68-16 are not ARARs. The Navy and Water Board have "agreed to disagree" on this issue. The Navy's position and the Water Board's position are documented in Section 2.13.2 of the RAP/ROD.

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TRANSMITTAL/DELIVERABLE RECEIPT

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CTO: 0090
LOCATION:
Mare Island Naval Shipyard
Vallejo, California

FROM:



Steve Bradley, Contract Manager

DOCUMENT TITLE AND DATE:

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Contract Number N68711-03-D-5104 Contract Task Order 090

Dear Mr. Tamayo:

Under Contract Task Order 090, Work Element 2 – Preparation of Record of Decision, SulTech is pleased to deliver hard copies of the revised *“Responses to Comments on the Draft Remedial Action Plan/Record of Decision for Installation Restoration Site 17 at Investigation Area A1, Mare Island, Vallejo, California”*. An electronic copy was forwarded via electronic mail on Wednesday November 16, 2006.

If you have any questions or need additional information, please call me at (415) 222-8210.

Sincerely,



Dennis Kelly
Project Manager

Enclosures

cc: Michael Bloom (1)
David Godsey (1)
Kelly Ryan
File

TC.B090.12373

RESPONSES TO REGULATORY AGENCY COMMENTS ON
THE DRAFT REMEDIAL ACTION PLAN/
RECORD OF DECISION FOR
INSTALLATION RESTORATION SITE 17

DATED 16 NOVEMBER 2006

THIS RECORD IS ENTERED IN THE DATABASE AND FILED
AS

RECORD NO. N00221_001207