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August 31, 2001

450-03401-190

Richard G. Mach., Jr. P.E.  
Department of the Navy  
Southwest Division BRAC Office  
1220 Pacific Highway  
San Diego, CA 92132-5190

**Subject: Comments on the Revised Draft Field Sampling Plan/Quality Assurance Project Plan for Parcel E Data Gaps Investigation, April 26, 2001 including revised figures and tables dated July 2001 and Attachments A through F**

Dear Mr. Mach:

This letter transmits our comments on the subject document. There are comments in this letter and in the attachment from our consultant Treadwell and Rollo.

The Navy needs to adequately characterize the landfill areas of Parcel E, so that there will be sufficient data to evaluate the feasibility of removing some or all of the landfill as part of the long term remedy for cleaning up Parcel E.

In this document and the Removal Action Landfill Cap Close-Out Report dated July 13, 2001, the Navy asserts that the Landfill Cap was put in place solely for the purpose of extinguishing the fire. But at the same time, they also imply that they are attempting to treat this Cap as a long-term permanent remedy for the contamination in the landfill. All attempts to make this Cap a permanent remedy will need to go through a very thorough technical review and public input process.

Section 2.1, page 29 in the discussion about Manganese investigation, the Navy asserts that it will use the 10,000 ppm cleanup level for residential areas. Since the dispute on this issue has not been resolved the Navy is taking a risk that it will be required to meet the 1,400 ppm clean up level currently in place for residential areas on Parcel B. Please comment on how the Navy will address this issue.

Please describe how much, if any, the discussions and conclusions from the Parcel E Risk Management Review process conducted in the fall of 1999 are incorporated into this

document. The Regulatory Agencies and the City spent long hours providing input to the Navy on the areas of Parcel E that needed to be investigated. That information should be incorporated into this document.

Sincerely,



A. Don Capobres  
Project Manager  
Hunters Point Shipyard Redevelopment Project Area

Enclosure: Treadwell & Rollo Memorandum

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## MEMORANDUM

This memorandum transmits Treadwell & Rollo's comments on the following documents.

- Revised Draft Field Sampling Plan/Quality Assurance Project Plan for Parcel E Data Gaps Investigation, Hunters Point Shipyard, San Francisco, California, prepared by Tetra Tech EM Inc. for the Department of the Navy, dated March 7, 2001, revised April 26, 2001, with revised figures and tables dated July 2001, including:
  - Attachment A: Parcel E Shoreline Riprap Characterization;
  - Attachment B: Lateral Extent of Parcel E Landfill;
  - Attachment C: Landfill Gas Monitoring;
  - Attachment D: Liquefaction Potential at Parcel E;
  - Attachment E: Small-Arms Firing Range Characterization; and
  - Attachment F: Wetlands Delineation Work Plan.

The following paragraphs include comments regarding the FSP/QAPP figures and tables, various issues related to the landfills and radiological contamination, as well as each of the Attachments.

**Comment re. Cover Figure** Parcel E boundary (solid blue line) incorrectly indicates that the parcel boundary extends into San Francisco Bay. All offshore areas are part of Parcel F.

**Comments re. Section 1.1** The IR-01/21 site background needs to include a description of the 2000 landfill fire and subsequent placement of the interim cap, including cap details.

**Comments re. Section 1.3** Four decision rules are presented in Section 1.2 on page 23, but they are not all carried forward into Section 1.3, "Quality Objectives and Criteria for Measurement Data".

The four rules presented in Section 1.2 are:

- Soil contamination was previously found, but the lateral extent was not adequately bounded.
- An insufficient number of representative samples existed for a given area to fully define the presence, or lack of, chemical contamination in soils.
- The BRAC Cleanup Team provided specific recommendations for additional soil characterization.
- The detection limit for PAHs in a previous sample analysis was found to be above the soil cleanup goals in Appendix 1 of the Parcel C QAPP, and there was not sufficient

data from surrounding borings to rule out the potential for a soil exceedance in the original sample.

The three “study questions” posed in Step 2 (Identify the Decision) of Section 1.3 are:

1. Have adequate soil sampling and analytical data been obtained from IR sites in Parcel E to delineate the lateral limits of contaminated soils?
2. Are there areas historically used for industrial purposes where representative soils samples have not been collected and analyzed?
3. Did previous samples analyzed for PAH contamination have non-detect concentrations, but the detection level for the analytical method was above the soil cleanup goals specified in the Parcel C QAPP?

It is unclear whether all four “rules” from Section 1.2 are adequately addressed by the three “questions” in Section 1.3, which sets forth the objectives for the entire data gaps sampling program.

#### **Comments re. Table 3, “Data Gap Boring Samples”**

- The rationale for the boring should be tied back to the “Decision Rules” presented in Section 1.3. Each boring, or set of borings, should include an indication as to whether it will serve to:
  - a) Delineate the lateral extent of contamination;
  - b) Provide information re. an industrial use area for which there currently is no data; and/or
  - c) Address high detection limits for PAHs encountered during previous investigations.
- Table 2 presents the only rationale for the distance of data gap boring locations (25 feet from an existing data point where cleanup criteria has been exceeded or 50 feet from a location where data is absent). No rationale is presented for the number and location of the data gap borings. Regardless, the number, location, and distance of data gap borings appear to have been selected somewhat at random. For example,
  - Figure 1 – Data gap borings IR01B426, IR01B427, IR01B438, and IR01B439 are intended “to further characterize the extent of PCB contamination surrounding IR01MW367A”. Here, four borings are located within approximately 50 feet of a previous boring where one compound (Aroclor-1260) was detected at levels that meet both the PRG and the Soil Cleanup Criteria.
  - Figure 3 – No data gap borings are proposed to further characterize the extent of PCB and PAH contamination surrounding IR02TA11A. Here, two existing borings are located within 30 to 70 feet of a boring where two compounds (Aroclor-1260 and Benzo(b)fluoranthene) were detected at levels that exceed PRGs. If the process of locating data gap borings were consistent with the above

example regarding IR01MW367A, it would appear that two data gap borings, one to the north and one to the south, should be located within 50 feet of IR02TA11A. (The closest boring to the south is located 150 feet away, and there are no borings to the north within less than 300 feet.)

- A systematic approach and rationale to the location of data gap borings should be presented in the text, shown in the figures, and documented in Tables 2 and 3 or another table. The potential need for additional borings to delineate the extent of contamination is mentioned on page 28. The rationale and triggers for advancing additional borings should be clearly presented in detail.
- The number and depth of samples that will be collected at each boring has not been specified and again a rationale should be laid out and carried through the text and tables.

#### **Comments re. Landfills at IR-01/21 and IR-02**

- Figure 1 shows the “Burn Area” extending beyond the limits of the “Debris Zone” at the northeast corner of the landfill. This indicates that the boundary of the debris zone (or “limits of waste”) has not been adequately determined and remains a significant data gap. The text (p. 23) lists this issue as a “non-standard data gap”, which will be addressed separately. However, Table 3 identifies several data gap borings (e.g., IR01B425 and 437; IR01B442 and 443) that will be sampled “to further characterize the extent of PCB, PAH, and metal contamination surrounding the landfill cap area.” Applying the stated rationale for these borings, data gap borings should be located at regular intervals (e.g., every 200 feet) around the entire landfill cap, except in places where an existing boring satisfies that data need. This rationale should then also be applied to the landfill on IR-02.
- Figure 1 shows that the “cap” does not entirely cover the debris zone at the northwest corner of the landfill. If the cap is to be part of an interim or final remedy for the landfill, it should be extended in the future to cover the entire estimated debris zone, as shown in Figure 1.

#### **Comments re. Landfills, Existing Cap, and Constructability**

The following aspects of the landfills should be added to the list presented on p. 23 of the FSP/QAPP:

- Nature and depth of the “debris” layer;
- Landfill cap operation and maintenance (O&M) Plan, and
- Landfill cap-patching procedure.

The rationale for including the above items is as follows.

### Nature and Depth of Debris Layer

In order to allow a determination as to whether or not the existing (IR-01) and proposed (IR-02) caps provide a suitable interim or final remedy component for the two landfills, the contents of the landfills require further investigation beyond soil gas. Trenching is a common method utilized in such investigations. It allows a visual assessment to be made of the nature, depth, and condition of landfill contents. In addition, samples can be collected from within various layers of material identified in the test pits and submitted for chemical analysis. Such investigations have been performed, for instance, at a landfill located within the Presidio of San Francisco. The test pits in that instance were dug through the entire debris zone, until native material was encountered. An extensive boring program was also conducted.

### Landfill Cap O&M Plan (IR-01)

An Operations and Maintenance (O&M) Plan should be prepared. For instance, CCR Title 27 requires topographic mapping of the landfill cap every 5 years, and regular inspections and periodic re-grading (maintaining a minimum 3% slope) of the surface to provide adequate surface runoff.

### Landfill Cap-Patching Procedure

Several site investigations are foreseeable in the near future. Future remedial actions (e.g., installation of a landfill gas collection system) are also possible. Such activities will necessitate full penetration of the existing landfill cap at IR-01 and possibly the proposed landfill cap at IR-02, including the GCL. In order not to compromise the integrity of the cap, such penetrations will necessitate proper patching of the cap. The patching procedure should include a technical specification for each layer of the cap (foundation layer, GCL, and vegetative layer) and the vegetation or other cover.

### **Comments re. Attachment A – Parcel E Shoreline Riprap Characterization**

- As noted on Page A-1, first paragraph, the riprap characterization *“data gap is of concern because of the potential migration of hazardous substances from the riprap to San Francisco Bay (Bay) which may pose a risk to aquatic ecological receptors.”* The last full paragraph of Page A-2 indicates that assessing potential migration of contaminants to the Bay is of primary concern and that *“riprap materials most likely have been in place for over 30 years, and any contaminants that would migrate to the Bay are in the process of doing so or have completed migration.”* It does not appear that the proposed chemical analyses will develop sufficient information to evaluate the migration of hazardous substances, with the exception of the initial leaching of chemicals to the riprap material or the potential for physical transport of the soil/sediment to the bay. Leaching from the soil/sediments to the Bay should be evaluated. There is also no mention of ecological risks in the Data Quality Objectives Steps (Table A-1).

- The sampling described in Section 6.0 appears to indicate the analysis of soils/sediments for total chemical analyses, rather than soluble or leaching analyses. In order to evaluate potential migration to the Bay, it would be prudent to analyze for chemical constituents in sediment porewater (where sediments are inundated) or soil leachate. Other analyses that may provide useful information in the evaluation of ecological risk (i.e., bioassays, soil/sediment organic carbon content, particle size distribution, pH, ammonia, etc...) should be considered for this fieldwork.
- Table A-1, Data Quality Objective Steps should be revised to indicate that one of the principle study questions associated with the project area is “Are chemicals in soil/sediment within the riprap migrating to the bay and posing a risk to aquatic ecological receptors?”
- Page A-10, second paragraph indicates that “*The Parcel C QAPP was designed to compare analytical data with the cleanup goals and determine what soil areas in Parcel C required excavation.*” If porewater or leachate analyses are added, reference to the Parcel C QAPP (Page A-10) may not be applicable.
- Page A-4, third paragraph indicates that the metallic debris contains valves, gauges and other items. Have instrument dials been observed in this area? Is there a reason to suspect radium dials in this area?
- Page A-4, fifth paragraph indicates that “*if asbestos sampling are found during future field events, appropriate sampling and analysis procedures will be added to this document.*” Does this mean that additional site walks will be initiated at Parcel E or that information regarding potential asbestos containing materials will be noted during the field sampling proposed for the data gaps characterization?
- Section 5.0, Characterization Design, Page A-8, item #4 indicates that a sample will be collected from the soil/sediments in the vicinity of the suspected kiln bricks area, as well as from the bricks themselves. Section 6.0, first paragraph, Page A-9 indicates that only one sample will be analyzed for PCDD/PCDF. Will the soil sample or the brick sample be analyzed for PCDD/PCDF? This clarification should also be noted in Table A-1 in Step 7.

## **Comments re. Attachment B – Lateral Extent of Parcel E Landfill**

### Purpose of the Program

The stated purpose of the program is to more adequately delineate the lateral extent of the landfill. The location of the soil borings from previous investigations (Figure 1, FSP/QAPP) indicates that a systematic effort to identify the limits of waste was never made, and such an effort is not proposed in this Attachment. If the purpose of the interim

cap<sup>1</sup> is to cover the entire landfill, a more accurate description of the purpose of the subject sampling program would be to verify that the landfill cap installed during the latter half of 2000 actually covers all of the landfilled materials.

### Depth of Borings

It is estimated that a maximum of 40 borings will be required. Five of those borings will also provide data for the assessment of liquefaction potential (Attachment D). Table B-1 states, "Borings that are being installed to characterize liquefaction will be advanced to a depth of 50 feet, or the bottom of waste, whichever is greater." It appears that the other borings will be advanced to the bottom of waste or some other depth, which is not specified. The depth for all borings should be specified.

### Location of Borings

It is stated that borings will be located along the northern and southwestern sides of the landfill and that the borings will be spaced roughly 100 feet apart. The proposed boring locations should be indicated on an attached figure, with the understanding that they will be relocated in the field if surface obstacles are encountered or if the boring cannot be advanced to full depth due to refusal.

### Landfill at IR-02

If the proposed cap for the landfill at IR-02 is to be part of an interim or final remedy for the landfill, then a similar program to more firmly establish the limits of waste appears warranted for the landfill located at IR-02. Data from such an investigation would provide the basis for the extent of the proposed landfill cap (Figure 3, FSP/QAPP).

## **Comments re. Attachment C – Landfill Gas Monitoring**

### Table C-1, DQO Steps

This table states: "If, during a methane survey, conducted in buildings within 300 feet of the northern edge of the landfill, methane is detected in concentrations that exceed 5 percent by volume of air, then immediate steps will be taken to protect human health (such as evacuation) and a landfill gas collection and treatment system will be installed."

Title 27, Section 20921 states:

- "The concentration of methane gas must not exceed 1.25% by volume in air within on-site structures." And
- "The concentration of methane gas migrating from the landfill must not exceed 5% by volume in air at the facility property boundary..."

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<sup>1</sup> Draft Removal Action Landfill Cap Close-out Report, Parcel E, Hunters Point Shipyard, San Francisco, California, prepared by Tetra Tech EM Inc. for the Department of the Navy, dated July 13, 2001.

It appears that the 5% criterion does not apply to indoor air, but to the perimeter of the landfill. Therefore the above sentence in Table C-1 should be modified to read as follows: "If methane is detected in perimeter soil gas probes [GMPs] in concentrations that exceed 5 percent by volume of air, then immediate steps will be taken to protect human health (such as evacuation) and a landfill gas collection and treatment system will be installed. If methane is detected in indoor air at concentrations that exceed 1.25% by volume of air, then immediate steps will be taken to protect human health (such as evacuation), and methane gas control measures will be designed and implemented for such structures prior to continued occupancy."

It also appears that the 5% criterion has already been exceeded in at least two borings (p. C-2, Parcel E Remedial Investigation Report<sup>2</sup>). Therefore, a landfill gas collection and treatment system may already be warranted. The proposed monitoring program should serve to confirm and expand upon the previous findings. The information obtained from this investigation should be thorough enough to provide the basis for the preliminary design of a landfill gas collection and destruction system, if it is found to be required. Since the destruction is typically by means of a flare, the soil gas investigation should include an assessment of gasses other than methane that might require special treatment due to their toxicity or other concerns.

#### Indoor Air

Indoor air in buildings at northern edge of landfill (which are less than 100 feet away) should be sampled for methane as well as the other COCs identified in this Attachment.

#### Figures

- The attached figure should indicate proposed perimeter sampling locations and each building that will be sampled for indoor air.
- A separate figure should identify, in advance, the pipelines, manholes, etc. in the vicinity that will be sampled.

#### Sampling Procedure

VOC sampling: The casing/drill stem should be purged prior to sampling with Summa canisters (i.e., do need a pump), otherwise the canister may draw a sample that is not representative.

#### Issues Associated with Older Landfills

It has been observed at other, older fill sites (e.g., Mission Bay) that methane gas sampling results can be subject not only to spatial, but also temporal variations. The causes of these temporal variations are not well understood, but it has been hypothesized

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<sup>2</sup> Parcel E Remedial Investigation Draft Final Report Hunters Point Shipyard, San Francisco, California, prepared by Tetra Tech EM Inc. for the Department of the Navy, dated October 27, 1997.

that the sampling results at such landfills are more sensitive to variations in ambient atmospheric temperature and pressure and that the “driving force” due to gas concentration gradients can vary over time, due to the age of the “source” of the gas. In light of these recent observations, it is recommended that the soil gas probes at Parcel E be sampled on more than one occasion, during different atmospheric conditions, prior to deciding whether to install a permanent GMP.

#### Issues Associated with Future Land Use

The Navy proposes to not install GMPs at perimeter sampling locations where no methane is detected during the initial soil gas survey. Title 27, Section 20925 states that GMPs do not need to be installed only if “gas migration could not occur due to geologic barriers and that no inhabitable structure or other property such as agricultural lands within 1000 feet of the property boundary are threatened by gas migration.” Given that

- there are no identified geologic barriers to the migration of landfill gas,
- future reuse of the property is open space for recreational use, and
- future residential and commercial/industrial reuse in adjacent areas will likely include various structures,

the permanent monitoring network should encompass the entire perimeter of the landfill.

The locations of GMPs should take into consideration future layout of structures, streets, etc, after site re-development. Title 27 Section 20923 also calls for monitoring at inhabitable structures within 1000 feet of the disposal site boundary.

#### Follow-up Monitoring

Items to record (pp. C-9 – C-10) should also include:

- Specified trace gases, other than methane, if required
- Date, time, general weather conditions, and probe pressures

QC sampling also needs to be included, e.g. equipment blanks (rinsate water from drilling apparatus).

#### Landfill at IR-02

A similar landfill soil gas monitoring program appears warranted for the landfill located at IR-02.

#### Radiological Impacts

The text (p. 23) lists radioactive materials among the “non-standard data gaps”, which will be addressed separately. This effort should include a discussion of the impact of the

radioactive waste that is believed to be present at these locations on the existing (IR-01) and proposed (IR-02) landfill caps.

#### **Comments re. Attachment D – Liquefaction Potential at Parcel E**

- This attachment primarily addresses the effects of potential liquefaction. However, the effects of potential differential settlement should also be addressed. At minimum, monitoring for differential settlement should be included in the Post-Closure Monitoring and Maintenance Plan for the landfills. Excessive differential settlement can be expected to adversely affect surface water runoff and may require additional maintenance measures, including additional filling and re-grading of the site.
- Page D-3, second paragraph, states: “Lateral spread can occur on very shallow slopes of 0.3 to 3 degrees and displace the soil by several feet to tens of feet and can occur on very thin layers of liquefiable soils if they are uniform across the site.” An existing or future perimeter dike may mitigate such spreading, if appropriately located and constructed.
- The methodology used (Seed-Idriss) relies on peak ground acceleration (PGA). Title 27, section 20370, Seismic Design, requires that Class II units be designed to withstand the maximum credible earthquake (MCE) without damage to the foundation or to the structures which control leachate, surface drainage, or erosion, or gas, and Class III units be designed to withstand the maximum probable earthquake (MPE) without damage to the features listed above. Thus, the issue of liquefaction should be considered within the broader framework of seismic design.
- Page D-8, third paragraph, states: “The [Loma Prieta earthquake] epicenter was approximately 100 miles from Hunters Point...” The distance is actually less than 100 kilometers.
- Page D-8, the last paragraph within section 5.1.2 states: “Based on the preceding background information, the following parameters were used in the Seed-Idriss methodology to estimate liquefaction potential: [1.] A 7.5 magnitude earthquake, [and 2.] PGAs of 0.1g, 0.4g, and 0.7g.” The lower value of 0.1g seems low for a magnitude 7.5 earthquake near the site; for example, the San Andreas Fault lies within 10 miles of the site. The higher value of 0.7 may be high for this site; the landfill material may not be able to transmit this degree of ground motion.
- Page D-15, bulleted paragraphs regarding sampling methods:
- CPT sampling: “The first row [of samples] will be closest to the current known lateral extent of the landfill, and the second row will be roughly 20 feet farther away from the known edge of the landfill.” A figure showing preliminary boring locations would be helpful in understanding the area to be sampled. Staggering the second row of borings behind the first would yield more information than locating them directly behind the first.

- Soil borings: “10 to 15 soil borings will be drilled ... using a drill rig or Geoprobe unit.” Also, next section: “SPTs will be carried out ... at the same locations as the soil borings.” A rotary-wash rig would be the more appropriate equipment choice to achieve both ends, since that would conform to the current standard of practice for liquefaction analysis as it would minimize sand heave and the disturbance of sand samples. Furthermore, the hammer velocity and energy should be determined precisely in the field (e.g., radar gun) in order to reduce errors in subsequent data evaluation.
- Soil samples: “... per the ASTM methods specified:...” If clayey sands or sandy silts are encountered, a hydrometer test should be performed and the liquid limit should be determined.

### **Comments re. Attachment E – Small-Arms Firing Range Characterization**

- Section 1.0: Were two previously collected samples analyzed for metals and if so, what were the results? What do the electromagnetic and magnetometer surveys have to do with the small-arms firing range? Were they used to collect data relevant to that site? If not, delete discussion and from Figure E-1.
- Figure E-1: Was the firing line located north of the presumed backstop? Include sample grid and fence discussed in the text on the figure.
- Do small caliber spent shells and rounds found at the site indicate the period of use or the types of firearms used?
- In what way were the physical boundaries of the site distinct indicating that contamination would be confined to the area (e.g., topographically isolating sides)? Describe the area and explain.
- Section 2.0: Provide a reference and rationale for the assumption that lead, magnesium, copper, and zinc are metals typically associated with small-arms firing ranges and that they are the appropriate contaminants of concern at this firing range.
  - The ammunition fired at small arms firing ranges contains a bullet or ball, cartridge case or shell casing containing the bullet, and an ignition system or cap. The bullet or ball contains lead alloy consisting of some copper, tin and antimony. Antimony is a hardening agent in bullets, and copper and zinc are the primary components in shell casings and jackets (Fact sheet. *Lead Contamination in Soils at Military Small Arms Firing Ranges*. Pro Act, June 1998). The ignition primers are composed of lead styphane and barium nitrate (Heath et. al., 1991). The ammunition typically used by military services usually contains bullets comprised of 90.0 to 99.2 percent lead and antimony (Federoff, 1975). Because lead is the main component of ammunition, it should be considered the primary contaminant of concern. Antimony, barium, copper, and zinc should be considered as

contaminants of concern, but are present in lower concentrations in ammunition (Heath et. al., 1991).

- Section 5.0: Will the presence and amount of ammunition be noted? If found, will these artifacts be sieved out and kept for inspection by archaeologists? Or will ammunition be left in the samples to assess metal content? If taken out, the ammunition artifacts should be weighed and analyzed for metals content. The contribution from the ammunition should then be factored back into the overall sample result.
- Table E-1: What will trigger additional sample collection and how many additional samples may be collected? Explain approach for additional sample collection.
- Section 6.0: What type of sampling equipment will be used to collect the samples (hand-augers, trowels, and excavators)? Explain rationale used for selection of equipment.

#### **Comments re. Attachment F – Wetlands Delineation Work Plan**

- Page F-1: The Work Plan focuses on conducting a delineation of areas that meet the three criteria contained in the 1987 Corps Manual for identifying jurisdictional wetlands. In addition to jurisdiction over wetlands, the Corps has jurisdiction, in tidal areas, over all vegetated or un-vegetated areas below the “High Tide Line” as “waters of the U.S.” The Work Plan should be broadened to include a delineation of all waters of the U.S., including wetlands, and tidal waters below the High Tide Line. It should include a calculation and survey of the High Tide Line within the study area.
- Page F-1: The San Francisco Bay Conservation and Development Commission (BCDC) has “Bay” and “100-foot Shoreline Band” jurisdiction in San Francisco Bay tidal areas. Their Bay jurisdiction extends landward to Mean High Water in areas without tidal marsh vegetation and to 5 feet above local Mean Sea Level in areas with tidal marsh vegetation. Their Shoreline Band jurisdiction extends 100-feet landward of the Bay jurisdiction. The Work Plan should include identification and mapping of these jurisdictional boundaries.
- Page F-2: The Navy proposes to only survey areas previously identified as wetlands. Since recent observations (2000), made as part of a risk assessment study, have identified additional wetlands not identified in earlier wetland studies (1991), a survey focusing on wetland identification throughout the study area should be conducted and should not be limited to previously identified wetlands.
- Page F-3: The table (not numbered) in Section 4 does not identify an individual or individuals with appropriate local experience necessary to conduct a jurisdictional wetland delineation.

- Page F-5: Table F-1 provides some guidance as an outline of the approach required for conducting a wetland delineation. However, the more detailed methodology given in the 1987 Corps Manual and USACOE Wetlands Delineation Manual Modifications and Clarifications Memoranda should be used as the methodology, as stated in Section 5.0 (page F-6).
- Page F-6: The team of “professional wetland scientists” referenced in the text should be ones experienced in conducting wetland delineation in the Bay Area.
- Page F-6: Normally, the California Department of Fish and Game would not receive a copy of the Delineation Report for review, unless the report had been specifically requested or accompanied other materials required for Department review, as would occur as part of a CEQA/NEPA review. On the other hand, both the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration were identified in the Work Plan (page F-1) as agencies interested in a study area Corps jurisdictional issue, but were not listed in the Work Plan as agencies to receive a delineation report copy. This requires additional clarification.
- Page F-6: Sampling Methods. Same comment as made concerning the F-1 Table, i.e., the section provides an outline of methods to be used, but methodology used should be the one in 1987 Corps Manual.
- F-6, Section 6.0 Paragraph 1, Line 2: Replace “Vegetation” with “Plant species”.
- F-6, Section 5.0, Paragraph 2: The background data review should include the Soil Survey of San Mateo County, Eastern Part, and San Francisco County, California.