



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

December 5, 2000

Mr. Richard Mach  
Southwest Division Naval Facilities  
Engineering Command  
1220 Pacific Highway  
San Diego, CA 92132-5180

**SUBJECT: GROUNDWATER BENEFICIAL USE EVALUATION PARCELS C, D AND  
E, HUNTERS POINT SHIPYARD**

Dear Mr. Mach:

The Environmental Protection Agency (EPA) has completed review of the subject document dated November 17, 2000. Our comments are included in the enclosure. If you have any questions regarding these comments, please call either of the undersigned.

Sincerely,

A handwritten signature in cursive script that reads "Sheryl Lauth".

Sheryl Lauth  
Remedial Project Manager

A handwritten signature in cursive script that reads "Claire Trombadore".

Claire Trombadore  
Remedial Project Manger

cc: Mr. Chein Kao, DTSC  
Mr. Brad Job, RWQCB  
Mr. Mike Wanta, TTEMI  
Ms. Karla Braesemle, Weston  
Mr. John Chester, City of SF  
Ms. Julie Crosby, Navy  
Mr. Dave DeMars, Navy

**US EPA'S COMMENTS REGARDING THE GROUNDWATER BENEFICIAL USE EVALUATION PARCELS C, D AND E, HUNTERS POINT SHIPYARD, DATED NOVEMBER 17, 2000**

General Comments:

1. Page 1. Objective and Purpose. The objective and purpose of this document is not to "delineate TDS zones in comparison with Federal and State criteria." but to "classify the A aquifers on parcels C, D and E according to the Federal and State criteria."

The Navy should make the groundwater classification designation first, and then refer to the use of Site Specific Factors (SSFs) as part of the Feasibility Study (FS) evaluation of technologies. The aquifer classification system is a set standard used for all federal environmental programs and not exclusively reserved for CERCLA. In some circumstances other compelling site specific factors may be used in deciding what level of cleanup is needed for an aquifer, but these site specific factors in no way affect the classification of an aquifer. As currently written, the draft Groundwater Beneficial Use Evaluation document presents groundwater TDS values but the Navy does not make a groundwater beneficial use determination. Clearly, much of the groundwater at HPS can be classified as a Class II aquifer under the federal classification criteria. In the draft final document, the determination of groundwater beneficial use on Parcels C, D and E must be made.

2. Page 2 should be revised. We would suggest, deleting all text after the first two bullets at the top of page 2. This is the text that starts with "According to the National..." through the remainder of this section which ends with a bullet that says "...revised FS reports."

Then, please insert the following text, after the bullets on the top of page 2:

"Under California State Water Resources Control Board (SWRCB) Resolution No. 88-63, all groundwater is potentially suitable for municipal or domestic supply, unless:

- the total dissolved solids (TDS) exceed 3,000 mg/L and (emphasis added) it is not reasonably expected by Regional Boards to supply a public water system, or
- there is contamination, either by natural processes or by human activity (unrelated to a specific pollution incident), that cannot reasonably be treated for domestic use using either best management practices or best economically achievable treatment practices, or
- the water source does provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day. (Please note: this is only a suggestion for the purposes of organization of the document, we would defer to the RWQCB (Brad Job) for the exact wording).

For the purposes of CERCLA response actions, EPA's guidelines are used to classify groundwater because EPA guidelines are more protective than state criteria and the State of California does not have an EPA-approved comprehensive state groundwater protection plan.

Once the determination of groundwater classification has been made as part of this deliverable using the criteria listed above, other site specific factors (SSFs) will be evaluated in the feasibility study to determine appropriate remedial alternatives and cleanup criteria for the purposes of a CERCLA groundwater cleanup decision. For the purposes of a CERCLA cleanup decision, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) preamble allows for the application of the SSF to determine appropriate remediation goals for Class I and II groundwaters.”

3. While we agree that the Navy can use the highest TDS value for the determination process, EPA has some concerns about using data collected as far apart as the years 1990 and 2000 in the same data set to make decisions. It might be more appropriate to resample all of the wells the Navy is using to determine the aquifer classification so that all of the data is from the same year. Let's discuss.

Further, we do have a some questions regarding the accuracy of the TDS values that are very high in one sampling event and much lower in subsequent sampling events. For example:

**IR01MW43A.** The result used was 77,000 mg/L, but this result is clearly anomalous because three prior results and three subsequent results were less than 10,000 mg/L. It appears that a decimal point may have been displaced in this anomalous high value, and it should not be used. Further justification for discarding this result is that all of the TDS concentrations for nearby well IR01MW44A are below 3,000 mg/L.

**IR02MW126A.** 29,700 mg/L was used, but subsequent duplicate sampling results were both below 10,000 mg/L.

**IR03MW218A1.** This well appears to have declining TDS values, but the first and highest result of 17,000 mg/L was used. There are three subsequent results below 10,000 mg/L.

**IR14MW10A.** 20,500 mg/L was used, but there are two subsequent sampling rounds below 10,000 mg/L.

**IR58MW298A.** The TDS concentration of 10,300 mg/L was used but more recent results are all less than 1000 mg/L.

**IR58MW31A.** The TDS concentration of 17,800 mg/L was used when more recent results are all less than 1000 mg/L.

4. EPA does not necessarily agree with the Navy's interpretation for Parcel D and E groundwater as shown on Figure 2. For example, a lot of well data presented in Figure 1 indicated that much of Parcel D groundwater proximate to the Bay also meets the criteria of a class II aquifer. However, in Figure 2, many of these lower TDS values are dropped and the Navy concludes that much of the TDS data in this portion of Parcel D is not accurate and can therefore be ignored (e.g., wells for IR sites 55, 50, 22, and 17). While the Navy briefly alludes on page 3 to leaking water lines as a possible cause, additional evidence to support this conclusion must be provided. Further, the TDS data cited for this portion of Parcel D is largely 4 to as much as 10 years old, with no resampling since 1993-94 at IR-22, no resampling at PA50MW07A and IR55MW01A since 1996 and no

resampling of the IR 17 wells since 1992. Yet these results are dropped in Figure 2.

For Parcel E, it appears that the area that meets Federal criterion (Figure 2) should be extended to include much of IR-02 and part of IR-01. For example, the area that meets Federal criteria should be extended to include: IR01MW44A, IR01MW373A, IR01MW141A, IR01MW372A, and IR02MW114A, IR02MW141A, IR02MW373A, IR02MW372A, IR02MW87A and IR02MW114A2. If the anomalous high result for IR02MW126A is discarded, this well would also be included in this area. Also, there is an area in the southeast (IR-11, IR-14, IR-15 and IR-17 wells) where the TDS concentration is below 10,000 mg/L; this area is behind a sea wall and should be depicted as meeting Federal criterion on Figure 2. This area should include wells: IR14MW13A, IR17MW13A, IR15MW06A, IR02MW299A, IR15MW07A, PA50MW08A, IR15MW08A, IR73MW04A, IR11MW26A, IR17MW11A, IR11MW27A. The above locations are examples of where TDS values are below the 10,000 mg/L, however, there may be additional locations with TDS concentrations below 10,000 mg/L that are not specifically mentioned here but should be included in the revisions to Figure 2.

5. Page 3, first paragraph. The Navy states that TDS concentrations greater than 10,000 mg/l may be related to, among other things, "water line leaks". Then in the second paragraph on page 3, the Navy states that "isolated areas of low TDS may be related to water supply line leaks." The Navy concludes that water line leaks could cause both high TDS and low TDS values in the surrounding groundwater. This needs to be clarified and supported. EPA can understand how fresh water leaks could reduce TDS of adjacent groundwater but how does it result in higher TDS. Also, as said above, additional evidence such as actual field observations and measurements, must be cited to support the Navy's conclusions about the impacts of leaking water lines on groundwater.

6. Page 3, Conclusions. In the first paragraph, please make the conclusions based on comment 1 above. For example, refer to the figure and state which portions of the aquifer meet Class I, II or III designations. The remainder of the text can follow as written.