



Naval Base Ventura County RAB Executive Board:	
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Mugu Site:	Mr. Steve Granade
Hueneme Site :	Mr. Steve McCarel

Restoration Advisory Board Newsletter

Dear RAB members and others with interest, the May meeting provided site updates by Steve Granade and Steve McCarel as well as a presentation about future plans for dealing with the MTBE plume. The Navy is working on a final remedy that will be as effective as the interim pump and treat system, but will cost less and work faster. Steve McCarel presented the concept, which has been summarized in a Remedial Action Plan (RAP). The RAP is in final draft form and will be forwarded to the Regional Water Quality Control Board for concurrence. At the August 8 meeting, Mr. Charles Mortensen will present a summary of the Groundwater Remedial Investigation, the "basewide groundwater study", for Port Hueneme.

Hueneme

Groundwater Remedial Investigation...

Our groundwater contractor, Levine-Fricke, visited the base last month and took groundwater level measurements for 70 wells on the base. The wells used were the same ones that were sampled in the original work in 1998. The purpose for this work was to build more confidence in the groundwater model that was developed using the original data. Also, the measurements were taken to determine whether the groundwater depression, caused by a leaking sewer line that was subsequently repaired by the City of Port Hueneme, had been eliminated and the groundwater gradient had resumed its natural course. The data shows that the depression has subsided, evidence that the sewer line repair was successful.

One of the Los Angeles Regional Water Quality Control Board's requests concerning the groundwater model was to test it using an independent set of data. The model development used the 1998 data collected over a period of one year. The new data was averaged with the original data

and the contractor verified that the model provides a good representation of the steady state flow conditions of groundwater below the base.

Figure 1 shows the groundwater flow across

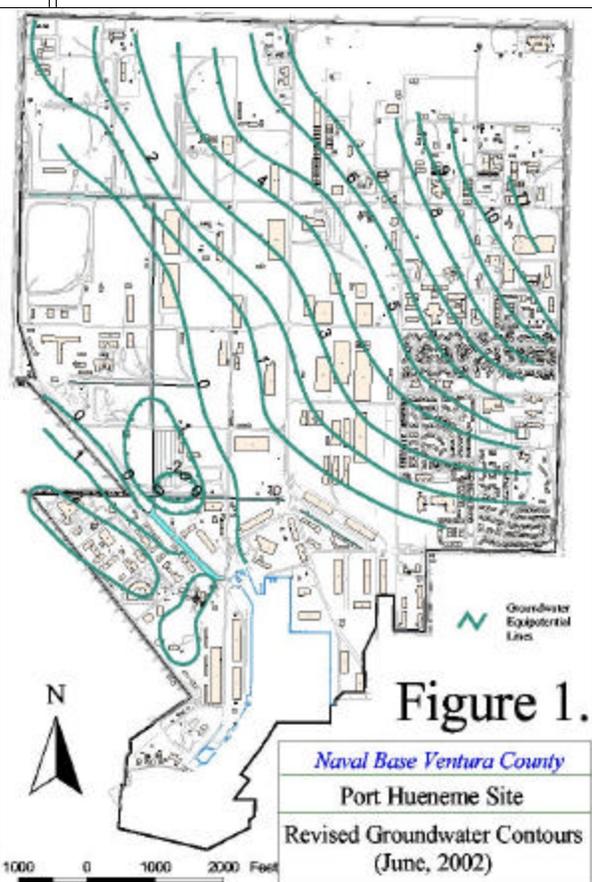


Figure 1.

Naval Base Ventura County
Port Hueneme Site
 Revised Groundwater Contours
 (June, 2002)

the base as depicted with groundwater gradients or contour lines. Groundwater flow is measured relative to the mean sea level and these lines, shown in the figure, represent flow of constant height above or below sea level. The flow varies between 11 ft. above sea level on the east side of the base to 2 feet below sea level (shown as "-2") on the west side. Each contour has an associated number that is shown somewhere on the line and represents its elevation or depression as it relates to sea level. From Figure 1, then, we describe the regional flow of groundwater from northeast to southwest across the base. A groundwater depression can be seen in the lower mid-section on the west side of the base. This may indicate that not all the sewers have been sealed and that additional work may be required.

Feasibility Study ...

Bechtel Environmental Inc. (BEI), continues work on a feasibility study for nine sites (4, 5, 6, 8, 10, 11, 12B, 15 & 21). They surveyed the boundaries for each site. This is an important step in determining where to take samples for further characterization.

Recently, BEI provided revised risk assessment results for seven of the nine sites. DTSC required the Navy to use state accepted slope factors in the risk assessment calculations. The slope factor is a property of a given contaminant that indicates at what concentration, if any, a contaminant becomes dangerous to human health and the ecology. Slope factors are major contributors to the final assessment value. Various means can be used to determine a slope factor. It was important for the Navy and DTSC to agree on this issue. The results of the revised calculations showed minimal change in risk values. The new values, if acceptable to the state, will be used to determine the optimum remedy for each site, that is, whether institutional controls, hot spot cleanup, or "no further action" is the best solution. The new values and the backup calculations are currently under review at DTSC.

Mugu

Site 24...

Phase II of the bioremediation pilot involving the injection of methane and oxygen is working very well. The methane and oxygen stimulate the microorganisms to eat the vinyl chloride in the groundwater at

the site 10 times faster than the previous method that used lactic acid. Phase II will continue through December of this year but it looks as though the entire site may be cleaned up in only two years using this technology.

Site 11, the Lagoon...

You may recall that sediment and tissue sampling and analysis as part of an Ecological Risk Assessment, conducted by Tetra Tech, was scheduled for a three week period in May. The work was completed in June; a draft report of results is due in September. The concern is whether contaminants are bioaccumulating up the food chain. The plants and animals sampled were selected because they are food for six important resources in the Lagoon, for which there is significant toxicological data available. The six resources targeted were the Snowy Plover, Clapper Rail, Great Blue Heron, Surf Scoter, Belding Savannah Sparrow, and Salt Marsh Harvest Mouse. The results of this investigation will help decide an approach to dealing with the Lagoon.

Site 8...

Results were recently obtained from an archaeological survey that was performed at this site in 1999. The draft report concludes that the site is eligible for listing on the National Register of Historic Properties; it is available for comment. The site appears to have been the location of a seasonal "fish camp" associated with a surrounding Chumash village complex. (The village complex is not located within the base boundary.) The Chumash were involved in the survey. The site lies along an old creek bed and is sized at about 2 acres. Currently, it is at the end of one of the runways. It was not likely a permanent camp. No human remains were found, however there were tools used for fishing and many fish bones and shellfish remains. You may recall that Dr. Steve Schwartz gave us a presentation about this site in January 1999.

That's our news since April. Please make plans to join us on August 8th. If you have any questions, please don't hesitate to call me, Gail Pringle, at 989-9256 or e-mail pringlegl@cbcph.navy.mil.