



Naval Base Ventura County RAB Executive Board:

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 Hueneme Site : Mr. Steve McCarel

Restoration Advisory Board Newsletter

Dear RAB Members and others with interest, this is Issue 4 of our newsletter. Hopefully you have found these newsletters informative. The goal is to keep everyone updated between meetings about Installation Restoration (IR) activities at Hueneme and Mugu as well as National Environmental Technology Test Site (NETTS) events. Our October meeting turnout was very low; are we being too effective?

Our next RAB meeting is scheduled for January 4, 2001, 7:30 p.m. at the Orvene Carpenter Community Center. The agenda is enclosed since the date is close at hand.

Our new Southwestern Division Remedial Project Manager (RPM) is Mike Gonzales. Mike is no stranger to Port Hueneme, having worked on projects here previously. He was the RPM in Yuma Arizona before taking over the work for Naval Base Ventura County.

MUGU

The pilot electrokinetics remediation project at Site 5 was restarted in November. This site was formerly used as a plating shop, and metals such as chromium, cadmium, lead, nickel and silver contaminate the soil. The innovative electrokinetics process is designed to remove the metals by applying an electric current to the ground through electrodes installed in a 4" wide by 6' deep well. You may recall that this site was previously shut down because of the formation of excessive chloroform. To eliminate this problem, changes to the equipment were made. First, by simply cutting the length of the electrodes in half, the volume of chloroform generated was cut in half. Secondly, air-sparging equipment was installed, which effectively collects and transforms the chloroform into benign salts. Lastly, about 25 gallons of water containing small amounts of chloroform is being captured and removed weekly. To ensure the system is working properly, a monitoring program is in place. The point of compliance is 100 parts per

billion, equivalent to the drinking water standard. Conclusive results are anticipated in about one year. If the system is successful, the normal CERCLA process will start to choose a long term, full-scale remedy.

The pilot test at Site 6, the "Got Milk, Jr." site, is underway; results should be available at the January meeting.

The soil and groundwater samples taken at San Nicolas Island in July have undergone tests to see if bioremediation of ammonium perchlorate is feasible. Preliminary results are very positive and seem to show that bioremediation is a potential solution to this problem. Steve Granade will have more details at the January meeting.

HUENEME

The Navy contractor, Tetra Tech EM Inc., completed a preliminary draft of the Groundwater Remedial Investigation. The investigation includes sampling the groundwater beneath the base at 75 locations and developing an analytical, 3-dimensional groundwater flow model. This effort has been underway for several years and the long awaited results are

finally available. Those who have reviewed reports in the past on various IR sites at the base may remember that groundwater was not discussed in depth in any of the reports. The reason is that we decided to bundle up all the work that would be required for each site and treat it as a single item that is applicable to the complete base wide footprint. The Navy is currently reviewing the preliminary draft. As soon as this review is completed, a draft report will be made available to the state regulators and the RAB for review. The report is in two volumes: Volume 1 reports the findings and Volume 2 contains all the field work and laboratory data.

The report discusses surface water and groundwater. The surface water features include Port Hueneme Harbor, Channel Islands Harbor, and the on-base drainage channels that serve as the base drainage system. Three distinct and separate subsurface units were primarily addressed in the report on a basewide scale: the Semi-Perched Aquifer, the Oxnard Aquifer, and the clay cap, which separates the two aquifers.

Briefly, the report indicates that groundwater in the Oxnard and Mugu Aquifers as well as surface water at the base have not been significantly impacted by contaminants. However, five locations in the upper Semi-Perched Aquifer warrant further study. The contaminants noted in the aquifer are various metals, volatile organic compounds and semi-volatile organic compounds. Although there are no known local drinking water wells currently pumping from the aquifer, the Los Angeles Regional Water Quality Control Board (LARWQCB) has designated the Semi-Perched Aquifer as a "beneficial use" aquifer. Beneficial uses may include domestic, agricultural, industrial, municipal, recreational and minimum stream flows. The presence of high total dissolved solids due to seawater intrusion in this aquifer would not permit some beneficial uses, such as drinking water, without extensive treatment. The most likely potential receptors of groundwater contaminants are ecological receptors in the Channel Islands and Port Hueneme Harbors, through discharges of the Semi-Perched Aquifer. This issue will require additional investigation by the Navy to resolve. Recommendations are provided in the report, however, these recommendations will be thoroughly

reviewed by the Navy prior to implementation. The Navy is hopeful that a thorough review of the recommendations will also include comments from RAB members. Recommendations in the report include site specific ecological and human health risk assessments in addition to further evaluation of the groundwater in certain areas.

This report is one of the more important reports coming out of the IR program at Hueneme. The Navy strongly encourages RAB members to take the time to review this report. We will need to determine the best way to get the document to anyone who wants to participate in the review since the report is very large - aren't they all!

The groundwater below the base is a critical element in the Navy's cleanup program and it is important that results of this study and action taken be made known to the surrounding community. Your help with this review will have an impact to future funding for additional work. If you haven't been engaged for awhile, now is the time!

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NETTS

Innovative MTBE cleanup technologies continues to be the thrust of the National Environmental Technology Test Site's (NETTS) program. In late September, a bio-barrier was successfully installed on the parade field; culture injections will occur in mid-December. The U.S. EPA is making progress with their own demonstrations at Hueneme; at the present time, 5 demonstrations are planned over the next several years. Reading your agenda for January, you will notice that the presentations this time are focused exclusively on MTBE treatment demonstrations, ongoing and future, at CBC. Our old friend Ernie Lory will be tell us the latest news and lead the discussions; Dr. Carl Enfield will be present to speak about the U.S. EPA projects.

That's our news since October. Please make plans to join us on January 4! If you have any questions, please don't hesitate to call me, Gail Pringle, at 989-9256 or e-mail pringlegl@cbcph.navy.mil. Looking forward to seeing you all in the New Year!