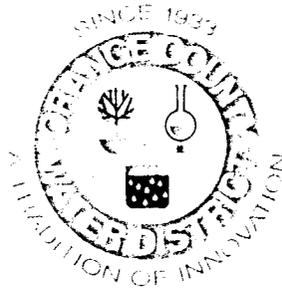


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MCAS EL TORO
SSIC # 5090.3

MC

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ORANGE COUNTY WATER DISTRICT

November 7, 1991

Mr. John Hamill
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Subject: Multi-point Monitoring Wells/MCAS El Toro TCE Investigation

Dear Mr. Hamill,

As the EPA's decision approaches whether to accept existing and future multi-point (MP) monitoring wells as part of the current MCAS El Toro TCE RI/FS, the Orange County Water District wishes to reiterate its firm support for MP wells constructed using the equipment and standards developed by Westbay Instruments, Ltd. As the organization having installed the most Westbay-type MP wells, OCWD requests that you seriously consider our experiences and rationale to utilize this state-of-the-art technology on this and future projects.

As manager of the 300-square mile Orange County Groundwater Basin, OCWD is charged with the task of defining local and regional hydrogeologic conditions, including water quality, on which almost 2 million people depend for the majority of their water supply. To implement this task, OCWD has installed approximately 100 groundwater monitoring wells for hydrogeologic data acquisition since 1988. Of these wells, some 25 are of the Westbay type and were constructed to depths ranging between 300 and 2,000 feet at an estimated cost of \$4.2 million. We expect to double the number of MP wells over the next five years. We estimate that our tax-paying constituents were spared an additional \$11 million in costs, which would have been necessary if an equivalent number of conventional standpipe monitoring wells were constructed. In today's difficult economic climate, OCWD's mission "to provide local groundwater producers a reliable, adequate, high-quality water supply at the lowest cost" is an ever-increasing challenge. We applaud firms like Westbay that have developed technology that has provided OCWD with more detailed hydrogeologic information at a substantial savings in cost.

With an estimated \$21 million price tag for only the first phase of the MCAS El Toro RI/FS, the regulatory agencies should evaluate all possible avenues for cost management, as the Navy's limited budget may eventually impose undesirable restrictions on the quality and quantity of hydrogeologic data necessary to adequately investigate this area. The high degree of depth-specific aquifer characterization provided by Westbay MP wells, as compared to conventional wells, has enabled OCWD to better practice true wellhead and aquifer protection.

OCWD staff have read accounts of the unfortunate mishap at one of the Westbay MP well installations at the San Gabriel Valley project. We think you will concur that very few of us practicing in the field of groundwater science have been spared the occasional "well from hell," whether they be conventional or multi-point monitoring wells. In all of its Westbay installations, OCWD has had very few problems, and all of these were easily (and inexpensively) mitigated. The number of successfully installed and operating Westbay MP wells simply does not indicate a likelihood of out-of-the-ordinary operational and maintenance expenses. The technology developed by Westbay Instruments is too valuable to base a final decision on a single (questionable) problem occurrence.

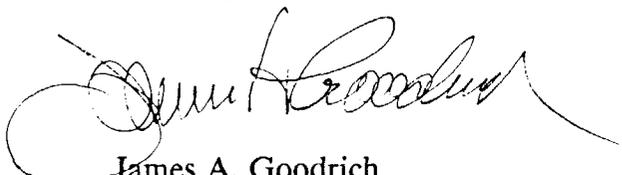
The EPA and other regulatory agencies should consider the actual risk involved with installing MP versus conventional monitoring wells. From a regulatory standpoint, the potential for cross-aquifer leakage has always been a primary concern. The detailed QA/QC procedures developed for the Westbay MP system to identify leakage are nonexistent for conventional wells. In addition, the Westbay system is replaceable, whereas leaking conventional standpipe wells are virtually impossible to modify. Regarding costs and operation, which OCWD and the Navy must seriously consider, the cost savings gained from Westbay MP wells will significantly outweigh system operational activities even in the unlikely event of replacing the Westbay system in a well.

OCWD recommends that the multi-point well technology be given broader, more thorough testing and evaluation by EPA. OCWD would like to assist EPA in this endeavor. We propose that the EPA use the existing four OCWD MP wells and the one or two new MP wells requested by the Navy for the MCAS El Toro RI/FS as an optimal evaluation setting. All existing or proposed MP wells are in areas where the hydrogeology and water quality are fairly well understood. Over the course of the investigation, sufficient data quality checking and operation and maintenance experience can be acquired to adequately assess the viability of the Westbay MP wells as compared to conventional standpipe technology.

We have stated it verbally, and we state it here in writing: OCWD is prepared to maintain the integrity of the four existing MP wells (MCAS-1, -2, -3, and -7) above and beyond any commitments made by Westbay Instruments and the Navy. The interests of OCWD and its constituency are best served by having these (and all) monitoring wells properly functioning. Based on all available information, including economic factors, and the assurances of OCWD to maintain the Westbay MP wells beyond the life of this project, we see the risk taken by the regulatory agencies in accepting these wells as being minimal and easily justifiable.

We appreciate your consideration of our comments and look forward to your favorable decision. If you have any questions, my phone number is (714) 378-3200.

Sincerely,

A handwritten signature in black ink, appearing to read "James A. Goodrich". The signature is fluid and cursive, with a large initial "J" and "G".

James A. Goodrich
Director, Basin Management Group

cc: Julie Anderson, U.S. EPA Region IX
John Scandura, Calif. Dept. of Toxic Substances Control
Manny Alonzo, Calif. Dept. of Toxic Substances Control
Gerald Thibeault, Santa Ana Regional Water Quality Control Board
Ken Williams, Santa Ana Regional Water Quality Control Board
Capt. John Faunce, MCAS El Toro
Larry Nuzum, Naval Facilities Engineering Command, San Diego
John Dolegowski, CH2M Hill
Frank Patton, Westbay Instruments, Ltd.