

ITEM: 22

SUBJECT: United States Department of the Air Force, Air Force Real Property Agency, Former McClellan Air Force Base, Groundwater Extraction and Treatment System, Sacramento County

BOARD ACTION: *Consideration of NPDES Permit Renewal*

BACKGROUND: The United States Department of the Air Force, Air Force Real Property (Discharger) owns and operates the Former McClellan Air Force Base, Groundwater Extraction and Treatment System (Facility) to extract groundwater contaminated with volatile organic compounds (VOCs) and heavy metals for treatment and discharge to surface water. Up to 2.88 million gallons per day (MGD) of treated groundwater is discharged from the Facility to Magpie Creek and up to 0.144 MGD is discharged to Beaver Pond (a wetlands area adjacent to Don Julio Creek), both waters of the United States, and tributaries to Robla (Rio Linda) Creek and the Natomas East Main Drainage Canal (NEMDC) within the Sacramento River Basin.

The treatment system consists of a 64,000-gallon influent tank, an air stripping tower, six 20,000-pound liquid-phase granular activated carbon (GAC) vessels, and two ion exchange (IX) resin vessels. Process piping allows each treatment technology to be bypassed or reconfigured as necessary to effectively and efficiently treat the process stream.

The NPDES permit authorizes a minor discharge. This Order establishes revised effluent limits for 1,1-dichloroethane; 1,2-dichloroethane; 1,1-dichloroethylene; cis-1,2-dichloroethylene; tetrachloroethylene; trichloroethylene; vinyl chloride; selenium; mercury; and chromium VI. New effluent limitations for carbon tetrachloride and dichlorobromomethane have also been established in the Order. Effluent limitations for 1,1,1-trichloroethylene and pesticides were not retained from the existing Order (Order No. R5-2003-0052-A01).

The Discharger and the California Sportfishing Protection Alliance (CSPA) submitted comments on the tentative NPDES permit issued for public review on 13 August 2008. A Response to Comments document is included in the agenda package that fully addresses the comments. Some minor changes have been made to the proposed Order in response to the comments.

ISSUES: The Discharger and CSPA are contesting the proposed Permit. The major issues discussed in the public comments are summarized below:

Monitoring Requirements – Many of the Discharger's comments were in regards to the monitoring requirements contained in the proposed Order. The Discharger requested that the Regional Water Board take into account historical monitoring data and reduce the sample frequency or eliminate sampling requirements for several parameters.

As a thorough data set has already been compiled for several parameters

and because reduced monitoring will provide sufficient data to evaluate the effects of the effluent on the receiving stream, effluent and receiving water monitoring frequencies for several parameters have been reduced. For other parameters, additional monitoring requirements are necessary to determine reasonable potential to exceed water quality objectives and monitoring frequencies have been retained in the proposed Order.

pH and Temperature – The proposed Order contained an annual averaging period for the receiving water limitations for pH change and temperature increases. In addition, the proposed Order also required the Discharger to conduct a study to determine the effects of the pH and temperature of the discharge on the receiving waters. The Discharger commented that the study requirement should be removed. CSPA commented that, due to exceedances of the receiving water limitations for pH and temperature during the term of the existing Order, the permit should not be adopted without an enforcement action.

As discussed further in the Response to Comments, the study requirement was inadvertently included in the proposed Order and has been removed. Monitoring data was re-evaluated and indicates that, on an annual average basis, the Discharger could achieve receiving water limitations for temperature. Monitoring data also demonstrates that although the annual averages for pH change are greater than the allowable 0.5 units, the driving factor for these changes above 0.5 is the fact that the pH of the upstream receiving water frequently exceeds the water quality objective of 8.5 while the effluent is consistently maintained between 6.5 and 8.5 (i.e., a greater change is recorded when the upstream pH is greater than the objective of 8.5). This situation tends to result in the effluent diluting the receiving water downstream of the discharge, resulting in compliance with receiving water objectives. Therefore, the receiving water limitations for pH change and temperature increases on an annual average basis have been retained in the Order and no enforcement action is necessary.

Reasonable Potential Determination for Copper – CSPA commented that the proposed Order fails to utilize valid, reliable, and representative effluent data in conducting a reasonable potential and limits derivation calculations for copper.

In the proposed Order, the reasonable potential analysis was conducted utilizing all valid, reliable, and representative effluent data. Based on best professional judgment, Regional Water Board staff found an effluent copper sample to be questionable (i.e. not valid, reliable, or representative) and was not used as part of the reasonable potential analysis. Since all remaining effluent copper data (57 samples) were non-detect, there is no reasonable potential for copper.

Mgmt. Review \_\_\_\_\_  
Legal Review \_\_\_LTO\_\_\_\_\_  
23/24 October 2008  
11020 Sun Center Dr. #200  
Rancho Cordova, CA 95670