

tained through its PRA request show that a \$50,000 draft study commissioned by Metropolitan to assess a water deal that would transfer water from the Imperial Irrigation District to SDCWA was actually designed to serve as propaganda against the transfer. SDCWA points to the study agreement's statement of purpose, which refers to SDCWA's "aggressive and regionally disruptive efforts" to "shift significant amounts of SDCWA's cost" to other Metropolitan members as evidence of underlying bias. SDCWA has also called for the removal of Steven P. Erie, an author of the study who has criticized the Imperial Irrigation District transfer since 1996, from participation in the study. Mr. Erie states that he and the other authors were impartial in conducting the study.

Conclusion and Implications

What may have begun as a relatively simple rate dispute is now ramping up, with each side trying to win the public relations battle and other agencies and people getting swept up in the matter. SDCWA

has created a website (<http://www.mwdfacts.com/>) to present its side of the story and highlight the problems it sees with recent rate increases imposed by Metropolitan. Metropolitan has also been posting articles and responses of its own on its website (<http://www.mwdh2o.com/index.htm>), which has a section devoted to the SDCWA litigation.

Despite the contentious nature of the dispute, SDCWA and Metropolitan are not likely to go separate ways regardless of the outcome: SDCWA receives a substantial portion of its water from Metropolitan, and Metropolitan receives a substantial portion of its revenues from SDCWA. The underlying rate dispute has not yet been resolved, but the dispute and its recent progeny highlight the conflicts and organizational clashes that can occur when multiple agencies must share water that is scarce and costly. As water demands increase throughout the state, the lessons of the SDCWA-Metropolitan dispute may help other water suppliers avoid similar disputes in the future. (Amanda Pearson, Maya Ferry Stafford)

A MOVING TARGET? LAHONTAN REGIONAL WATER BOARD REEVALUATES BACKGROUND LEVELS OF HEXAVALENT CHROMIUM AT PG&E'S HINKLEY SITE

At a site made famous by the movie *Erin Brockovich*, naturally occurring background levels of hexavalent chromium in groundwater are under review. These background levels are critical to determining the level of remediation that will be required of Pacific Gas and Electric Co. (PG&E) in its ongoing remediation of the regional groundwater in Hinkley, California. On March 15, 2012, the Lahontan Regional Water Quality Control Board (RWQCB) considered concerns raised by a 2011 peer review of PG&E's 2007 study of the existing background levels, and heard options for addressing the peer reviewers' comments.

Site History

The subject site is located in the Hinkley Valley, approximately two miles southeast of the town of Hinkley and twelve miles west of Barstow, in the Mojave Desert of San Bernardino County. PG&E operated a compressor station on the site beginning in

1952. From approximately 1952 to 1965, hexavalent chromium (also known as chromium 6) was used as a corrosion inhibitor, and added to water used in the cooling towers. Untreated cooling tower water was discharged to unlined evaporation ponds, and contaminated the regional groundwater. The plume of contaminated groundwater is currently approximately two miles long and one mile wide.

The site was the subject of the 2000 movie, *Erin Brockovich*, which brought to the big screen litigation filed in 1993 and ultimately settled in 1996 with a \$333 million payment by PG&E to approximately 600 people who blamed exposure to hexavalent chromium for high rates of cancer and other diseases.

The 2007 Background Study

Generally, the State of California requires dischargers clean up waste to either background water quality, or the "reasonable" best water quality. In 2006, PG&E conducted a study to determine

the background levels of hexavalent chromium in groundwater in the Hinkley area. The study was intended to help inform the level of cleanup required by establishing the background “benchmark.”

PG&E submitted the results of its study to the RWQCB in a February 2007 report (the 2007 Background Study). In November 2008, the RWQCB adopted the following background chromium concentrations for the Hinkley area, based on the 2007 Background Study:

Maximum background total/hexavalent chromium = 3.2/3.1 ppb

Average background total/hexavalent chromium = 1.5/1.2 ppb

Demand for Peer Review of the 2007 Background Study Report

In 2011, several factors led the RWQCB to direct a peer review of the 2007 Background Study.

First, groundwater monitoring reports submitted by PG&E to the RWQCB in late 2010 and 2011 indicated that the previously defined plume was expanding to the north, west, and east.

Second, in July 2011, the Office of Environmental Health Hazard Assessment adopted a Public Health Goal (PHG) for hexavalent chromium in drinking water of 0.02 ppb. There is no drinking water standard for hexavalent chromium, and the PHG is not an enforceable standard. Rather, the PHG is an estimate of the level of hexavalent chromium in drinking water that would pose no significant health risk from consuming the water on a daily basis over a lifetime. A PHG is often the first step towards setting a drinking water standard.

Public interest in the background hexavalent chromium values derived from the 2007 Background Study was renewed and significant, in light of the expanding plume and new PHG. Concerns were voiced that, since the plume had expanded, the 2007 Background Study could be based on data that did not actually represent naturally occurring background chromium, but instead was affected by the plume.

In March 2011, the RWQCB called for a scientific peer review of the 2007 Background Study. Three scientists were asked to peer-review the study, and they submitted their findings to the RWQCB in October 2011.

2011 Peer Review Findings

Key findings of the 2011 peer review of the 2007 Background Study were as follows:

Certain sampling wells that mixed results from upper and lower aquifers do not provide valid data for determining background concentrations;

A statistical clustering effect could result from the uneven spatial distribution of wells, this effect could be tested for and corrected, but the 2007 Background Study failed to do so;

It is possible that “undisturbed” hydrogeologic areas in the Hinkley Valley simply do not exist due to extensive groundwater pumping and irrigation in the area; and

There may be issues related to analytical chemistry laboratory practices in the 2007 Background Study, including test method calibration, establishment of reporting limits, and quality control check procedures.

In February 2012, PG&E submitted a draft work plan to the RWQCB to further assess the background levels of total and hexavalent chromium. PG&E’s work plan noted that “many of the concerns raised by the peer reviewers were shared by PG&E and their technical staff.” The work plan also suggested that that “there are lines of evidence suggesting the maximum background levels for hexavalent chromium and total chromium could be higher in some areas of the Hinkley Valley” than the 2007 Background Study detected.

March 15, 2012 RWQCB Meeting

At a RWQCB meeting on March 15, 2012, staff presented the findings of the peer review to the Board. The staff report for the March 15 meeting stated: The Water Board must consider whether the existing background values are valid and defensible for the purposes of defining the chromium plume in groundwater and evaluating cleanup progress, in light of the peer reviewers’ comments. If the RWQCB decides

they are not, should the adopted values be re-assessed, or rescinded?

RWQCB staff recommended that, rather than outright rescission of the existing background values, that the RWQCB retain the existing background values while staff investigates the feasibility of developing new background levels using subset(s) of the existing dataset generated from the 2007 Background Study.

RWQCB staff proposed to bring any re-calculated background values back to the RWQCB for consideration no later than October 2012. The RWQCB did not take any action at the March 15 meeting, but heard from staff and members of the public regarding their concerns.

The March 15 meeting staff report is available online here:

http://www.waterboards.ca.gov/lahontan/board_info/agenda/2012/mar/item12.pdf

Conclusion and Implications

The background levels of hexavalent chromium are a critical piece in the ongoing remediation in Hinkley. Not only will they affect the level of remediation, but also the time frame and cost of that remediation, as incremental increases or decreases may substantially drive costs, time frames, strategy, and methodology. With the public eye trained on the RWQCB's next steps, background levels promise to be a hot issue in Hinkley for the foreseeable future. (E. Murray, Jan Driscoll)