To: Strauss, Alexis[Strauss.Alexis@epa.gov]
From: Dermer, Michele
Sent: Fri 7/11/2014 9:12:28 PM
Subject: RE: DOGGR response to Bakersfield Californian

Ok I will do something more formal

From: Strauss, Alexis
Sent: Friday, July 11, 2014 2:09 PM
To: Dermer, Michele
Subject: RE: DOGGR response to Bakersfield Californian

Suggest you send me, Kelly and Jane a fresh version that they can use to help DOGGR

From: Dermer, Michele
Sent: Friday, July 11, 2014 2:07 PM
To: Strauss, Alexis
Subject: RE: DOGGR response to Bakersfield Californian

Oops I made huge a boo boo!! Santa Margarita is fresh and was only in the Covington MOA version.

From: Dermer, Michele
Sent: Friday, July 11, 2014 1:13 PM
To: Strauss, Alexis
Subject: RE: DOGGR response to Bakersfield Californian

No, they are mixing apples and oranges.

The Santa Margarita Formation in the Kern River Field is a non-hydrocarbon bearing zone. An aquifer exemption of this zone was applied for by DOGGR in the 1981 Primacy Application under Table 1 entitled " Nonhydrocarbon Producing Zones Being Used for Waste Water

Disposal." These are generally zones where they re-inject brine after hydrocarbon extraction from a producing zone nearby.

In the two+ versions of the MOA this formation was granted exemption by EPA in a Table accompanying the MOA(s). DOGGR submitted TDS information at the time they applied for primacy; for that formation it was 600-2,600 ppm (parts per mission). We do not have current TDS information however.

In addition, the response to the last question did not actually answer the question and instead confused the issue entirely. The produced water associated with production is considered a Class II fluid and under the SDWA it can be disposed of in a properly permitted Class II disposal well because it is disposed of into a formation which is either not a USDW or has been properly exempted for this use.

Ex. 5 - Deliberative Process

From: Strauss, Alexis
Sent: Friday, July 11, 2014 12:56 PM
To: Dermer, Michele
Subject: FW: DOGGR response to Bakersfield Californian

Is it accurate to say "less than 3,000 parts per million tds" …don't they mean **more than** 3,000? Ignore their typo re ppm.

From: Zito, Kelly
Sent: Friday, July 11, 2014 12:36 PM
To: Strauss, Alexis; Diamond, Jane; Montgomery, Michael; Mogharabi, Nahal
Subject: FW: DOGGR response to Bakersfield Californian

Hi all –

I just got off the phone with the director of public affairs at CA Dept. of Conservation regarding some information they are sending to a reporter at the Bakersfield Californian.

Just wanted to share this with you. Let me know if there's anything I can do to follow up.

Thanks-

Kelly

From: Drysdale, Donald@DOC [mailto:Donald.L.Drysdale@conservation.ca.gov]
Sent: Friday, July 11, 2014 12:18 PM
To: Zito, Kelly
Cc: Wilson, Ed@DOC; Bohlen, Steven@DOC
Subject: DOGGR response to Bakersfield Californian

Kelly:

Just tried to call you and left a voicemail. Below is our response to several questions related to Kern County disposal wells from John Cox of the Californian. Steve Bohlen has called or emailed several others at USEPA in an attempt to give them a heads-up on what we're saying. If you need to reach me, my direct line is (916) 445-0633. FYI, when I respond to Mr. Cox momentarily, I will let him know that we're not able to answer any follow-up questions today and invite him to email questions that we will deal with next week.

Regards,

Don Drysdale

CA Dept. of Conservation

Public Affairs Office

1. How specifically, and when, did DOGGR or the Dept. of Conservation come to identify those 11 wells as being out of compliance? (Clearly it was part of SB4 and groundwater monitoring activity -- but what exactly led to these wells being red-flagged, given that they've apparently been out of compliance for decades?)

The Department became aware that wells were injecting into zones that container higher quality water than had been assumed, water that may be less than 3,000 parts per mission total dissolved solids, a significant threshold for what constitutes usable quality groundwater. DOGGR's and the State Water Board's coming to understand this compelled an immediate response to stop further injection.

2. I'm informed there were originally going to be something like 100 wells shut down — until DOGGR/D.O.C. discovered 30-year-old documentation exempting the large majority of targeted wells. What exactly are the circumstances that led the state to narrow the list so drastically, and when did this happen?

DOC/DOGGR initially reviewed slightly more than 100 wells that might be injecting into groundwater that might be of quality better

than 3,000 ppm tds. DOGGR compared the approvals of those wells with the terms of the 1982 primacy agreement with the USEPA and with subsequent documentation from USEPA, dated 1985, indicating that USEPA had exempted more aquifers than were listed in the primacy agreement. That subset is about 95 wells, identified as being into aquifers that might be exempted. DOC/DOGGR is working with the USEPA and the State Water Boards to determine whether those wells should be injecting into their target zones.

3. How is it DOGGR overlooked this situation for decades?

Inconsistencies in the paper record at both the DOGGR and USEPA level of which aquifers were exempt and which were not resulted in permits being issued that may not have been appropriate. We are currently looking to see if other wells have been approved into aquifers whose exempt status may be in question and will take appropriate steps going forward.

4. UIC compliance has been a controversial issue in Sacramento since the days of Elena Miller, whose efforts to reform UIC reviews put her in the cross-hairs. To what degree do this month's injection well emergency orders represent a change in regulatory business as usual?

As indicated earlier, UIC application approval practice has been somewhat inconsistent. In some cases, that might have made sense. DOGGR is working now to ensure a consistent application of UIC, as appropriate to conditions.

5. What further changes are ahead in the realm of California UIC, and regulation thereof?

A review of the UIC program has been planned for some time as part of the Department of Conservation's work plan and that work is now underway. We are not ready to announce any specific major changes in DOGGR's application of the UIC program. We are in communication with USEPA and the State and Regional Water Boards about the program and will, when our communications are complete, be able to describe possible changes we've identified.

6. What is an "exempted 1425 demonstration aquifer"? How many California wells are classified as exempt aquifers, and why?

The "1425 demonstration" is a legal term used to describe what is required in a state's application for primacy. California's primacy application, presented to USEPA in 1981, was the premise for USEPA's granting primacy in a Memorandum of Agreement specifying, among other things, what aquifers were exempt. As mentioned above, however, inconsistencies in the paper record from that period spawned a number of questions about which aquifers were actually the subject of USEPA exemption.

7. How is it produced water is ever considered injectable into

USDW?

Under the Safe Drinking Water Act, there are several conditions that would make an aquifer exempt, including that the aquifer is a productive hydrocarbon zone. For instance, the Kern River Oil Field contains the Santa Margarita formation, which is a hydrocarbon-bearing zone and contains water of less than 3,000 ppm tds. That zone is an exempt aquifer.