September 30, 2015

California Public Utilities Commission
Public Comment on CalAM's MPWSP
Submitted by Michael Baer, Monterey District.

Comments on regional influences, rainfall and streamflows, and an addendum

I thought I was done with comments before today's deadline, but a couple developments have me back here tapping away at the keyboard. I was prompted in part by a passage in yesterday's Monterey Herald on the subject of the upcoming October CCC hearing in Long Beach, about restarting the test well:

"In issuing its recommendation, commission staff noted that Cal Am's monitoring had shown other basin and sub-basin wells exhibiting "substantial changes" due to regional influences, such as municipal groundwater pumping, seasonal agricultural uses, and changes in rainfall and streamflow."

I don't dispute that regional influences and rainfall changes (i.e no significant rain to speak of here since December) have influenced the results at the test well. But let's look at the big picture. The groundwater has substantially dropped in the Basin due to the drought. This will continue and probably accelerate as long as we are in these severe drought conditions. Does pulling 2.88 million gallons a day (mgd) during the test well, or 24.1 mgd if the proposed project were built make sense in this scenario? It can only exacerbate a dire situation.

But conversely, if el Nino swoops in with a deluge all winter long, it won't resolve the problem either, or more accurately, will create a different problem. Large rains will begin to fill empty reservoirs, expand streamflows, and recharge aquifers. As it does so, the water at the pump will naturally increase it's freshwater component. Now, by virtue of the Agency Act and the agreements being negotiated to keep the fresh component in the Basin, more water will have to be diverted from the Peninsula to honor that agreement. That means the water that is delivered will become less available and even more expensive per unit for Peninsula residents.

The bottom line is that this Cemex location is unsuitable, with too many convoluted variables and unknowns, significant legal obstacles that to date have not been embraced by regulators, and too sensitive an environment to support a regional source water intake. The ocean is a location for source water that makes all of those variables disappear. Entrainment and Impingement seem like quite modest obstacles in comparison, and the technology is coming on line to significantly reduce those impacts. Please end the folly at your earliest, or make CalAM shareholders pay for all stranded costs on this nightmare.

Addendum

The other development is that Peninsula resident David Beech submitted comments yesterday or today referring to my finding that the schematic (Exhibit 2 below) for the slant well does not equate to a slant of 19 degrees, but something more like angled 35 degrees from horizontal. I reiterate that it is the schematic. Who knows what the actual test well angle is. But Mr. Beech was under the impression I had submitted those comments to the CPUC as well as the CCC. I had not, but I do so now, for your reference.

September 29, 2015

Executive Director & Commissioners
California Coastal Commission
Public Comment by Michael Baer on MWPSP
Monterey District

Introduction
I am no hydrologist, and neither are you, yet that does not mean we should not scrutinize the staff report and WEISS Associates analysis for the re-permitting of the Cal Am test slant well. The stakes are too high, the project may reach a billion dollars including financing charges, and the Monterey Peninsula will rely on the proposed MPWSP to provide 62% of all its water needs.

I recognize that you have a voluminous agenda of work to conduct at the monthly meetings and of necessity must essentially rely on staff recommendations, particularly as they apply to technical analysis. Cursory review of the staff report and independent analysis by Weiss Associates would lend itself to your support for staff recommendations.

Further scrutiny by interested public such as myself raises questions you must consider if you are to execute your duties responsibly. That is all that we, the public who will pay the bills and rely on the water, can do, and frankly, it feels pretty disempowering, because if past performance is any indication of future outcome, the Commission has neither the inclination, nor time, nor expertise to scrutinize what they are presented. Rather than be the courageous entity to stop the project in the face of the impending CDO, regulators and courts have been content to pass it up the chain, let someone else make the hard decisions. Cover your Gluteus and get out of the way. Does the buck stop here and now?

Let's begin with a simple editing correction. Page 2, paragraph 3 of the summary material from staff states that the pumping began in February of 2015. It was actually April 22, 2015, that it began. Later in the report, the correct date is used. To summarize what actually happened: The pump ran continuously for 44 days until June 5, and tossed approximately 126 million gallons of brackish water, that Cal Am has no legal rights to except by means of your permit, carelessly out to sea. I use that adverb intentionally and will amplify on that at the end of this document.

Moving on to Exhibit 2. Fig 1-3 which shows a schematic of the test slant well. Throughout all the documentation in the staff report, Weiss analysis, dEIR and elsewhere, the well is said to be positioned at a slant of 19 degrees from horizontal. Yet a simple calculation of slope - rise over run - shows a slope of approximately 0.38 which translates to a slant of between 34 and 35 degrees. How this impacts the efficiency or durability of the pump I have no idea, perhaps it is insignificant, but what is significant is the degree to which the schematic is misrepresented from the stated angle; it is off the mark by about 79%. Neither GeoSciences (creator of the schematic), Environmental Sciences Associates (ESA - creator of the EIR) or Weiss Associates (creator of the CCC independent analysis) noticed this error. It raises a question of what else did they not notice, what other calculations are wildly off the mark and not being noticed?

Unsubstantiated Claims
The answers remain unknown, and cannot be known, for the simple reason that unlike the schematic above, many claims in this report, as well as the DEIR, are unsubstantiated by data.

To begin with a simple example:

-The report mentions a Salinas Valley Groundwater Basin (SVGB) well that has groundwater drops of up to 20 feet in the last few months. But the report fails to provide a location or data to support that claim. Where is this well? Does its location shed any light on the issues at hand?

Now, more substantially:

-The HWG, backed by Weiss Associates, claim that seasonal fluctuations, agricultural and municipal usage, are responsible for the groundwater drops. Where is the evidence for that? The tables show that MW4, the key monitoring well, showed a drop of roughly 4.7 feet throughout the time interval of the graph, from March 9 to August 24, 2015. So what happened in 2014, 2013, and 2012, etc., during those spring and summer months? With no historical data provided about the Coastal Sub Basin, how can anyone, including Weiss Associates, evaluate those claims? Recall that 126 million gallons of water was taken in the area by the slant well.

-Exhibit 4, may be the most essential graph to require substantiation and corroboration, because wouldn't it be just totally awesome if it were true! The image on the right side of the figure shows a model for the impressive sounding "reverse particle tracking." It claims to model where the water in the ocean and ground originate for the source water of the intake wells. Some droplets of ocean water are shown taking 6 years to get to the pump, and some particles of groundwater, two to three miles inland, are shown taking as much as 19 years to reach the pump. That seems truly remarkable: How can they figure that out? So . . . how DO they figure that out? No one knows. Who came up with this stuff and how? The "how" remains a total mystery. There is no appendix with data in the DEIR about it, and Weiss Associates provides nothing on it either, although they accept it, and rely on it's findings in the report. The "who" however is known. It's GeoSciences, and its president, Dennis Williams. I assume you are aware of this man and his company, and the conflicts that surround him. Williams has a direct financial interest in providing this rosy scenario. Still he remains the lead expert in the HWG who collect the data and evaluate the results of his patented slant well technology. His remaining presence completely corrupts the its credibility of the HWG.

******Exhibit 4*** *is used to claim that the pump will eventually reverse seawater intrusion because the cone of depression created by the pump will get so big, so broad and so deep, that the intruded seawater from further up the valley will start to flow seaward because of a gravity gradient. Except GeoSciences, corroborated by Weiss Associates, already said that the pump would only draw the seawater down 4 inches a half mile inland from the pump and not effect groundwater levels for the neighboring farmers. Which is it? I postulate the whole of Exhibit 4 is a creation of Dennis Williams' imagination and I challenge GeoSciences to prove otherwise with actual data that can be evaluated, and I challenge you, the Commission, to scrutinize their case.*

Now, here comes Ron Weitzmann of WaterPlus, a life long, award winning, professional statistician and water advocate claiming (on Sept 27, 2015) that the books are cooked, the data has been tampered, intentionally fixed! The guy has the expertise to make such a claim. Outside expert statisticians should review it, and see if it has merit. Given what I just argued about Exhibit 4, I would not be the least surprised if he were correct in his claims.