Megan Steer

From: Larry Parrish <lparrish@toast.net>
Sent: Wednesday, September 30, 2015 3:43 PM
To: MPWSP-EIR
Subject: Cal-Am Water desal project - DEIR comments

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Dear Ms. Borak et al. September 30, 2015

I am submitting the following comments and questions in regard to the Cal-Am Water Company's DEIR for the proposed Monterey Peninsula Water Supply Project (MPWSP).

1. **RESTARTING, RETESTING, AND RE-EVALUATION OF THE TEST SLANT WELL.**

As you know, pumping and testing of the test slant well was initiated around April 22, 2015 and was halted on June 5, 2015. So, the total testing time to this point is about 7 weeks. That is not nearly enough time to properly evaluate the data collected from the testing. In addition, since the cone of depression has probably recharged since June 5, either partially, or totally, testing must start from scratch. In other words, the previous test data is by and large useless. You may use that data as a comparison, but it is of little use otherwise. The well needs to be operated on a 24/7 basis for a period of at least 18 months, if not longer, to fully understand the complete impacts of pumping. In Dana Point at Doheny Beach that slant well was tested continually for 18 months, and the overall conclusion was that more testing was required to fully gather and evaluate appropriate and relevant data in order to move that project forward. To date, that project sits idle due to lack of funding and the questionable success of the slant well.

The conclusion to be drawn here is that since further testing is obviously required, the time line for the project must also be updated and effectively be readjusted in order to accomodate the necessary testing. And obviously, the EIR cannot, and must not, be approved until that testing is complete and related permitting must likewise be delayed. In brief, the project must be put on hold until testing is complete, fully evaluated, and thoroughly and honestly understood.

2. COMPOUND IMPACTS.

This DEIR only speaks to the effects and impacts brought about by ONE slant well. Since the project calls for 8 to 10 production wells, all the impacts relating to the slant well must be multiplied by a factor of 8 or 10. Has this been done in this DEIR? I don't think it has. This of course relates to cones of depression, drawdown of nearby wells, potential seawater intrusion, and other negative impacts. One must also consider that the production wells are clustered in groups of two or three. That will aslo weigh heavily on impacts and projections.

3. COMPACTION, SHORELINE RETRACTION AND EROSION.

As we're all aware, we are in a drought throughout California. Especially hit hard are farmers in the Central Valley and elsewhere. One of the major negative effects of the drought in the Central Valley is that source water vertical wells are needing to be drilled deeper and deeper into the farmland because historically shallow wells are drying up. As a result, what is happening is that the Earth, in and around where these wells are being drilled, is actually sinking. This is caused by compaction, and the prevailing scientific view is that it is permanent. In other words, no matter how much rain they may receive in coming months, or years, the ground will not re-elevate itself - that is, ground elevations will not increase to prior levels. On a molecular level, the spaces between soil molecules are compacted so dramatically that reintroducing water in the soil will not separate the molecules that have been compacted back to previous spacing - the soil will remain compacted. So, why is this relevant here?

Well, if the test slant well was drawing water from beneath the ocean, this may not be a problem. But, since the test slant well barely reaches the water line (the mean high tide line) this is significant. What is happening is that the well is drawing almost all of it's water from the dunes sand aquifer and the 180' aquifer. What will surely happen over a long period of testing, pumping millions of gallons a day from these aquifers, is that there will be extensive compaction - even more dramatic than in the Central Valley farmlands. These aquifers are essentially recharged from rainwater, especially on the inland side. With a new and massive cone of depression created by the test well, and reaching well inland, recharging of these aquifers will be astoundingly slow. This will lead to soil compaction, which will lead to retraction (recession) of the shoreline which will lead to extensive and continual erosion of the shoreline. When the production wells are constructed and clustered, this scenario will be even more dramatic leading to even more damage.

So, my questions would be - has this area of concern been properly studied, evaluated, and accounted for? How will the damages be mitigated? Will the shoreline and beaches need to be filled back in on a regular basis? What are the environmental damages to wildlife - flora and fauna? Who will pay for mitigations? Will this erosion cycle increase seawater intrusion? And why does the test well only go as far as lands' end - wasn't it supposed to go well out under the ocean? Were there problems with the drilling of the well? Was the drilling angle greater than intended? Is there a horizontal limit for drilling on a slanted angle? Were there drilling failures we don't know about?

Thank you for your consideration,

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