To: Harper, Jim[Harper.Jim@epa.gov]
From: Dermer, Michele
Sent: Tue 3/22/2016 5:50:56 PM
Subject: FW: Please save my drinking water; deny the Aquifer Exemption for the Arroyo Grande Oil Field

From: Ex. 6 - Personal Privacy
Sent: Monday, March 21, 2016 5:59 PM
To: Albright, David <Albright.David@epa.gov>
Cc: Dermer, Michele <Dermer.Michele@epa.gov>; Robin, George <Robin.George@epa.gov>; Kobelski, Bruce <Kobelski.Bruce@epa.gov>
Subject: Please save my drinking water; deny the Aquifer Exemption for the Arroyo Grande Oil Field

Dear Mr. Albright,

I live one mile from the proposed aquifer exemption site. All of my neighbors and I live on drinking water wells. Some of my neighbors live within a quarter-mile of the site. There is at least one neighbor with a drinking water well within the exempted aquifer, or right at it's edge. We all draw from groundwater that intermingle, to some degree, with the exempted aquifer.

DOGGR states that the aquifer in question is completely isolated, and does not mix with any of the surrounding aquifers. However, this is inaccurate. A geologist testified in a San Luis Obispo county panning commission meeting on November 12, that he noted there were small leaks where ground water from the aquifer in question intermingles with surrounding aquifers. Also, in DOGGR's report it is noted that the aquifer in question is sucking water from surrounding aquifers. (The oil field operation withdraws a tremendous amount of water from the aquifer - 20 barrels of water per 1 barrel of oil they extract. This equates to pulling out 385,598,000 gallons per year, according to a 2014 DOGGR report. Enough to supply approximately 3,000 homes with water.)

From DOGGR's website, under responses to public comment, DOGGR states,
"because of the reduction in field pressure from the removal of the oil and water (through the reverse osmosis plant) creates a pressure sink in the center of the field that draws fluid from the outside of the proposed area to the center of the field."

The main reason hat this intermingling of water is important to me is from a public health standpoint. I am a registered nurse. I dedicate my life to the health and wellness of my community. The waste that will be injected into the aquifer is toxic to human health. Currently, the waste water seems to be contained within the exempted area. But the waters in the exempted area are not isolated. The oil field is pulling water from surrounding aquifers, and if the water

can be pulled in, it can also push back out, to pollute the surrounding aquifers.

In a March 2015 *Newsweek* article, Duke University geochemist Avner Vengosh states that the wastewater produced from conventional oil and gas production is nearly identical to that produced by fracking.

We can estimate at what levels it is toxic based on scientific study, however, every human's anatomy and physiology is different. One person may be able to tolerate a higher toxic level of water longer without becoming sick. Another person, such as a small child or developing fetus, may only be able to tolerate a very scant amount.

In the *Newsweek* article, Vengosh states that a very small amount of bromide or ammonium can be toxic to human health.

The Safe Drinking Water Act was created to protect the health of all people, especially our most vulnerable - such as our small children.

This aquifer is not a disconnected body of water. It interacts with the surrounding groundwater, and its toxic contents can migrate to the surrounding aquifers.

You are in the privileged position to uphold the Safe Drinking Water Act. You get to continue to protect the health and safety of hundreds of people who drink from the surrounding aquifers. I place my utmost trust in you to make the best decision. The decision you would make for yourself, and your loved ones.

The next sip of water, tea, or coffee that you drink, consider the great relief you have to know that it is nourishing your body, not poisoning it. We are so fortunate to live in a nation that values clean water for all of it's people. Thank you for all you have done to protect our water. I am forever grateful to you.

I have attached a photo of my family, so that you can see the faces of the lives of a few people that you impact with your decision.

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Sincerely,

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References:

Gas Industry's Solution to Wastewater: Spray it on Roads. (2015, March). *Newsweek*.
Retrieved from http://www.newsweek.com/oil-and-gas-wastewater-used-de-ice-roads-new-york-and-pennsylvania-

little-310684

Vengosh and colleagues published their study in the journal *Environmental Science and Technology*.