Review of Simi Valley's Water Supply Relative to Santa Susana Field Lab

July 11, 2014

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Reviewed and Approved by the SSFL Community Advisory Group

Situation:

Rumors circulate that the water supply of Simi Valley, California is contaminated by runoff from the Santa Susana Field Laboratory (SSFL). The rumors imply that the health and safety of residents of the Simi Valley area are compromised.

1. *Is Simi Valley's water supply contaminated by SSFL?*

2. *Are Simi Valley residents endangered by their water supply?*

Findings:

Nearly all of the Simi Valley water supply is obtained from the California State Water Project. That water is initially pumped from the delta of the Sacramento and San Joaquin rivers, conveyed southerly by the California Aqueduct through the Tehachapi Mountains and then pumped up into the West Branch of the aqueduct whence it flows into Pyramid Lake and then runs down into Castaic Lake. From there it goes to the Metropolitan Water District's Jensen Filtration Plant in Granada Hills. At that facility the water is filtered and treated and then piped west to a tunnel under Santa Susana Pass. Exiting the tunnel the water goes into pipelines, which convey the water through Simi Valley.

Water is pumped from those lines into large water tanks, which serve local domestic and fire pressure zones. The Calleguas Municipal Water District is the wholesaler of water to the Ventura County Water District No. 8 and the Golden State Water Company. Those two entities supply all of the water used in Simi Valley. Most of the water that is conveyed in the Calleguas lines continues through the valley to Lake Bard at the southwestern corner of Simi Valley. During emergencies water from the Lake Bard Water Filtration Facility can be pumped back into Simi Valley if needed. Lake Bard supplies much of the water consumed in the cities of Thousand Oaks, Moorpark, Oxnard and Port Hueneme.

Ventura County Water District No. 8 supplies approximately 65 percent of the water consumed each year in Simi Valley, while the remaining 35 percent is delivered by the Golden State Water Company. Golden State gets 90 percent its water from Calleguas. Ventura County Waterworks District No. 8 pumps two groundwater wells in Tapo Canyon, which supply water for the irrigation of the Lost Canyons golf courses and a wholesale plant nursery, located at the confluence of Tapo and Gillibrand canyons. Surplus water from the pumping of those two wells is treated and conveyed into the district's lines and blended with the water imported from the California State Water Project. The Golden State Water Company pumps two wells on the west side of Sycamore Drive south of its intersection with Cochran Street. Golden State blends treated water from those two wells with imported water at a ratio of 10 percent well water to 90 percent imported water.

Overall, 96.5 percent of the valley's potable water supply is imported from northern California and is purchased by the Calleguas Municipal Water District. Some 3.5 percent of our potable water supply is derived from those four groundwater wells, and all of that well water is derived from groundwater. The water from the two wells in Tapo Canyon comes from the Gillibrand Groundwater Basin and originates from water that falls as rain on the mountains on the north side of the valley. There is no way hydrologically that any contamination from the SSFL sources can make its way into that groundwater system. The two wells pumped by the Golden State Wa-

ter Company draw their water from the northern side of the west end groundwater basin. No perchlorate has been detected in either of those wells.

Both water purveyors must prepare Annual Water Quality/Consumer Confidence Reports. (See District No. 8 CCR and Golden State CCR.) Neither report shows any sign of contamination that would adversely impact public health. Water testing is done for radioactive constituents. Most tests have resulted in no detection. When detected, readings are well below the maximum contaminant level for drinking water. Most radiation is derived from the erosion of natural deposits. Gross Beta Particle Activity can also be sourced to the erosion of natural deposits but also may result from manmade deposits.

Water lines do leak. However, leakage is one way. Water leaks from the water pipes out. Water supply pipelines are not subject to contamination from surrounding soil or groundwater because the water in those lines is maintained under positive internal pressure. That positive pressure is the reason that water flows out of the system when we turn on our taps and flush our toilets, and when fire district personnel connect their hoses to fire hydrants. Disruption of the water supply can result from the rupture of pipelines due to deterioration, mechanical damage or earthquake events. In those cases, the ruptured water lines go “atmospheric” after they are shut down. Once repaired they are flushed and sanitized.

Conclusions:

Returning to the two questions posed at the outset of this study:

1. *Is Simi Valley’s water supply contaminated by SSFL?*

   Simi Valley’s water has no contamination that adversely affects public health, neither from Santa Susana Field Lab nor from any other source.

2. *Are Simi Valley residents endangered by their water supply?*

   No.

References:

District No. 8 CCR
http://www.ci.simi-valley.ca.us/Modules/ShowDocument.aspx?documentid=6123
accessed 07/01/2014

Golden State CCR
http://www.gswater.com/simivalleyCCR/
accessed 07/01/2014