

September 8, 2016

Via email to: RB6enfproceed@waterboards.ca.gov

Daryl Kambitsch, Acting Executive Assistant
Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

Subject: Lake Tahoe Laundry Works' CAO Comments

Tahoe Keys Property Owners Association (TKPOA) appreciates the opportunity to comment on the Revised Cleanup and Abatement Order (CAO) prepared by the Lahontan Regional Water Quality Control Board (LRWQCB) for the discharge of chlorinated hydrocarbons from the prior Lake Tahoe Laundry Works (LTLW) Laundromat site at 1024 Lake Tahoe Boulevard, South Lake Tahoe to the groundwater.

TKPOA'S RECENT EXPERIENCE WITH PERCHLOROETHYLENE (PCE)

TKPOA commented on the Draft CAO in February 2016 and appreciates the LRWQCB consideration of and response to its comments. Since February 2016 there have been several activities that provide additional information regarding the PCE contamination of the Tahoe Keys Water Company (TKWC) wells. The PCE concentrations in TKWC Well #1 have increased from periodic low-level detections to a median value of 2.3 µg/L this summer¹. The PCE concentrations in TKWC Well #2 raw water have increased from a median value of 12 µg/L in 2015² to a median value of 17 µg/L in 2016³. The historical PCE concentrations for these two wells are shown Graphic 1 and Graphic 2.

The increasing PCE concentrations in the TKWC wells must be addressed in order to ensure a safe and adequate water supply for the 1,529 Tahoe Keys properties and the four non-member water customers. Wellhead treatment for TKWC Well #1 must be completed prior to the time when the PCE concentration exceeds the Maximum Contaminate Level of 5 µg/L. The planning level cost estimate for this project is \$3.2 million in 2016 dollars. The capacity of the wellhead treatment for TKWC Well #2 must be increased from the current 550 gallons per minute to the full

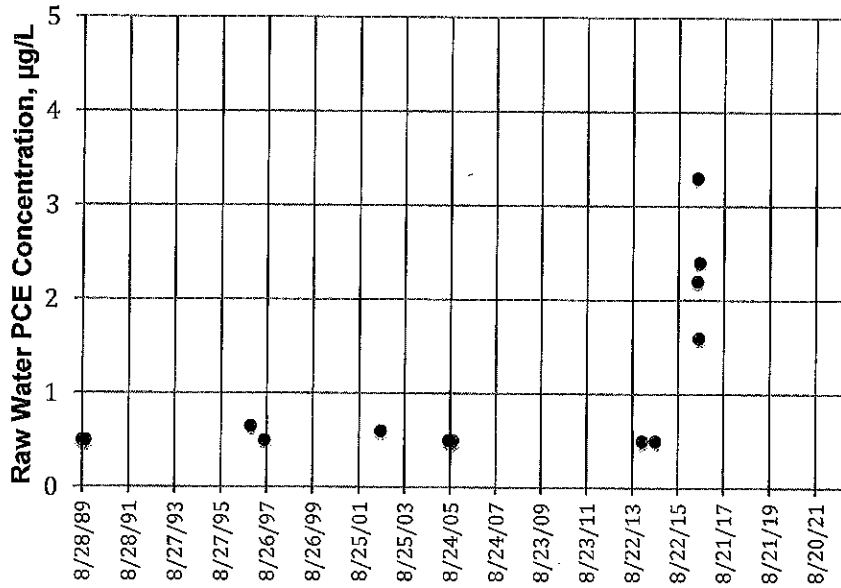
¹ The range of PCE concentrations in TKWC Well #1 were 1.6 to 3.3 µg/L in 2016.

² The range of raw water PCE concentrations in TKWC Well #2 was 9.6 to 22 µg/L in 2015.

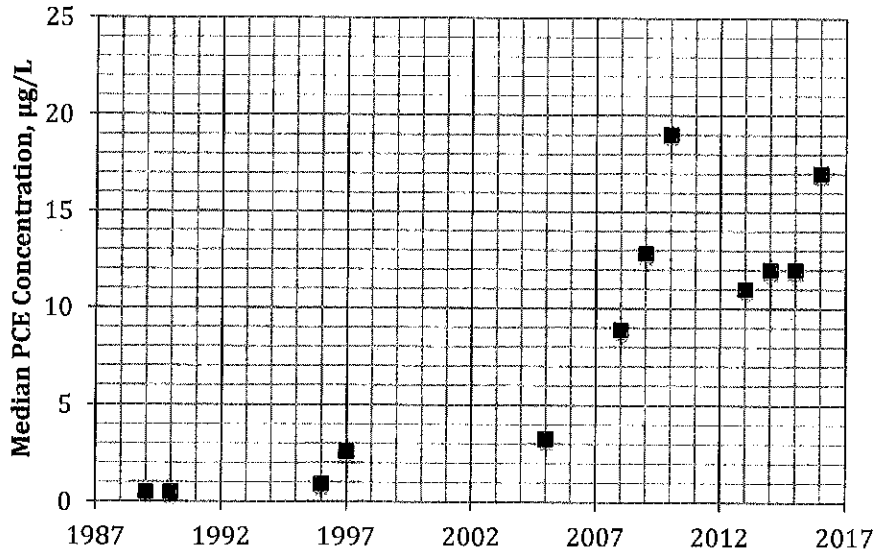
³ The range of raw water PCE concentrations in TKWC Well #2 was 17 to 18 µg/L in 2016 (year to date).

capacity of the well in order to provide adequate capacity in the event of equipment failure at TKWC Well #1, adequate seasonal run time between filter media changes, and to meet mandated fire flow capacity. The planning level cost estimate for this project is \$2.4 million in 2016 in 2016 dollars.

Graphic 1 – Historical PCE Concentration in TKWC Well #1



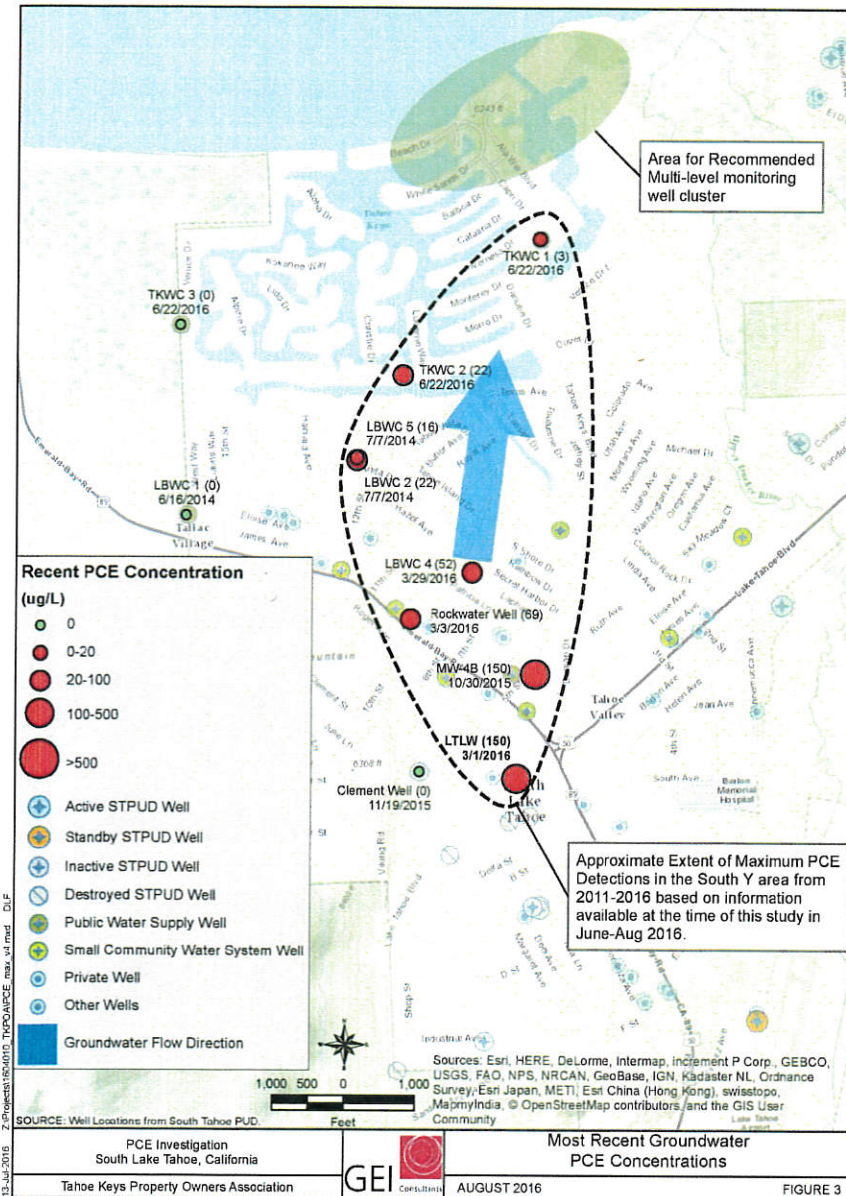
Graphic 2 – Historical PCE Concentration in TKWC Well #2 Raw Water



Two activities were completed since February 2016 that provides both updated groundwater PCE data and insight into the historical PCE data. The South Tahoe Public Utility District completed an evaluation of the effectiveness of using the Lukens Brothers Water Company (LBWC) Well #4 to intercept and treat PCE

contaminated groundwater⁴. This work provided current PCE data for two wells in the South Y area that are upgradient from the TKWC wells. It also provided insight into the groundwater flow direction at the LBWC Well #4. Following that work, TKPOA engaged the services of GEI Consultants, Inc. (GEI) to analyze both historical and current PCE data in the South Y area⁵. The map showing the summarized results from the GEI analysis is included as Graphic 3. The results of these efforts have been shared with LRWQCB staff.

Graphic 3 – GEI Map of Recent PCE Data in South Y, South Lake Tahoe



⁴ South Y Extraction Well Suitability Investigation, GEI Consultants, Inc., June 29, 2016

⁵ Results of PCE Investigation for Tahoe Keys Property Owners Association, South Y Area, South Lake Tahoe, GEI Consultants, Inc., August 15, 2016

TKPOA DETAILED RESPONSES

TKPOA's detailed responses to the Revised CAO are shown in Table 1.

Table 1 – TKPOA Detailed Response to Revised CAO

Page	CAO Statement	TKPOA Response
Cover Memo	Because of the CAO revisions discussed above, we suggest the Advisory Team allow a 30-day comment period for Bobby Page's Inc. on the entire CAO. We suggest a limited comment period for Fox Capital Management Corporation, Seven Springs Limited Partnership and the public on the addition of Bobby Pages' Inc. and on the more extensive off-site investigation and clean up requirements extending to the Tahoe Keys Water Company Well #2.	Please add TKWC Well #1 due to recent increase in PCE concentrations that are rapidly approaching the drinking water MCL.
1	The former Lake Tahoe Laundry Works (hereinafter referred to as the Facility or Site) is located ...approximately 5,500 feet south of Tahoe Keys (Attachment 1).	No comment
1	PCE has been consistently detected in the Tahoe Keys Water Company (TKWC) Well #2 at concentrations greater than the 5 µg/L drinking water standard. After being down for three years to install wellhead treatment, the TKWC #2 well was restarted in 2012 and has operated during summers ever since.	Please add TKWC Well #1 due to increase in PCE concentrations that were observed at 1.6 to 3.2 µg/L during June through August 2016.
7	Table. 2 Recent Water Results for Off-site Locations	Please add TKWC Well #1 PCE concentrations were observed at 2.2 to 3.2 µg/L during June through August 2016. Please update table with TKWC Well #2 PCE data for 2016.
12	The presence of PCE in Lukins Brothers Water Company Well #4	Please add TKWC Well #1 PCE concentrations were observed at

	on Hazel Drive and TKWC Well #2 on Venice Drive suggests that, if the Site is the source of pollution at these locations, the leading edge of the contaminant plume is located northwest of 883 and 903 Eloise Avenue and may extend to the Tahoe Keys.	2.2 to 3.2 µg/L during June through August 2016.
Attachment 5	Off Site Locations with PCE	Please add TKWC Well #1
Appendix A, page 1	<p>Sampling showed PCE concentrations increasing in the Tahoe Keys Water Company (TKWC) Well #2 on Venice Drive in the Tahoe Keys subdivision, one mile north of the South Y intersection. Since 2007, PCE has been consistently detected in the #2 at concentrations greater than the 5 µg/L drinking water standard. The Tahoe Keys Water Company Well No. 2 was shut down in 2009 until wellhead treatment was installed and the well resume operating in 2012. PCE concentrations peaked during July 2015 when 22 µg/L was detected in the municipal well. TKWC Well #2 operates during summer when the population in the Keys increases. The well is down for a majority of the year, meaning the uncontained PCE plume may be reaching Lake Tahoe during those months.</p>	<p>Please add TKWC Well #1</p> <p>Please update with TKWC Well #2 Raw Water PCE concentrations from 2016.</p> <p>The increase in population during the summer is due to occupancy of second homes and vacation rental tenants.</p>
Appendix A, page 2	As of 2016, there exist only five municipal wells operating in the South Y and near the western area in the city: Lukins Brothers Water Company Well #1, the District's Valhalla Well, and all three TKWC wells (#1, #2, #3).	No comment
Appendix A, page 6	Based on the extent of the PCE plume migration, as mapped in Attachment # (for Table 2), it is	Please see Graphic 3 above showing GEI Consultants, Inc. confirmation of this finding.

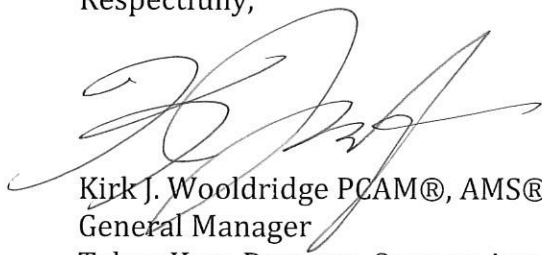
	<p>reasonable to assume that the plume began during Century 73's ten year ownership of the Site. At a conservative movement rate of 1 foot per day, the PCE plume could have migrated 13,100 feet during the past 36 years since 1979. Based upon partial plume containment by pumping water supply wells in the 1980s and 1990s, the plume could still have potentially reached the Tahoe Keys #2 well, 5,820 feet to the north, during the past 20 years.</p>	
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CLOSING

Resolution of the PCE contamination in the groundwater in the vicinity of the South Lake Tahoe Y area is of critical importance to the health of the Tahoe Keys residents and its non-member water customers and to the future of the Tahoe Keys. TKPOA is both interested and willing to work with LRWQCB and other impacted water purveyors to effectively address the issue of PCE contamination of the groundwater.

If you have any questions regarding this letter or need any additional information please contact John Larson (925.360.6600 or jlarscon.com).

Respectfully,



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