



# Fact Sheet

## ***Frequently Asked Questions:*** **Addressing Ground Water Contamination in Ripon**

### **Background**

Nestlé USA, Inc., previously owned and operated a plant in Ripon, San Joaquin County, that manufactured coffee. In the decaffeinating process, the company from 1957 to 1970 used Trichloroethylene (TCE), an organic compound later linked to some cancers and other health effects.

Around 1986, investigations conducted by Nestlé revealed that TCE had been released into soil and groundwater at the plant, via the city's industrial wastewater pond, and through a suspected leak in the sewer line near the intersection of Stockton Avenue and Fourth Street.

The company responded with several remedial measures, including groundwater and soil vapor extraction. Groundwater remediation was undertaken at the former Industrial Avenue facility and a parcel owned by Nestlé near the Stockton Ave./Fourth Street corner. Soil vapor extraction was conducted at both properties and completed by 2008. Wells that allowed for TCE migration into deeper groundwater were closed.

Based on the most recent testing, there appears to be no threat from TCE to any of the neighborhoods near the city's schools. Other areas of concern, including the possible presence of other volatile organic compounds, have led to additional and ongoing investigations.

The findings of the most recent sampling were presented at a [community open house on Tuesday, Nov. 19, from 5:30-7:30 p.m. at the Ripon Police Department](#). As more information is developed, these results will be shared in future open house events.

### **What is TCE?**

It is a clear, colorless liquid frequently used as a solvent for dry cleaning, automotive repairs, metals degreasing, paint and stain removal and in consumer products such as glue, disinfectants and dyes. Exposure raises several public health concerns, including



cancer, and irritation of the respiratory and nervous systems. Also, exposure to TCE in the first trimester of pregnancy may increase the risk of heart defects in the baby.

### **What remedial actions has Nestlé been ordered to undertake?**

The Central Valley Water Board is continually overseeing Nestlé's cleanup of the TCE contamination to ensure that it proceeds as expeditiously as possible. Since 1993, the Board has issued numerous orders directing the company to detail the nature and extent of the contamination and to develop and implement a remediation plan. These orders include [Cleanup and Abatement](#) orders issued in 1993 and 2006, [Waste Discharge Requirements](#) (permits) issued in 1999 and 2015 and [monitoring and reporting orders](#) issued in 2005 and 2017. Furthermore, the Central Valley Water Board also requires Nestlé to regularly conduct extensive monitoring of their cleanup efforts and report their progress to the Board. Monitoring and reporting orders are updated every three to five years, as needed, and impose requirements that include the sampling of Nestlé's groundwater monitoring and extraction wells, the City of Ripon's drinking water supply wells, local school water supply wells, and private water supply wells.

### **What are some specifics of the remediation?**

Since 1986, Nestlé's remedial actions include the following: Operation of groundwater and soil vapor extraction and treatment; removal of wells that could allow TCE migration; operation of three water treatment systems that restrict the chemical's movement and remove it from groundwater; and soil vapor extraction at its properties. The latter was undertaken in 2008 after extensive sampling indicated residual soil vapor concentrations were below the screening levels in effect at that time. Nestle also is investigating migration of the groundwater plume in the northern part of Ripon's downtown. If the movement of the plume threatens any drinking water wells, the company must implement a remedial workplan.

### **What is the timeline for completion of the cleanup?**

Complete remediation of large, complex plumes can take 50 to 75 years. Currently, the efforts are at about the halfway point. The hydrogeochemistry of the city's groundwater varies considerably in depth and location. Additionally, the numerous pumping supply wells and the adjacent Stanislaus River are a powerful influence on TCE movement. Predicting an exact timeframe for completed remediation thus is virtually impossible, which makes it incumbent upon Nestle to constantly monitor and reassess the workplan, and when necessary, install new extraction wells and treatment systems.

### **Since TCE poses a health risk, is vapor intrusion testing being conducted?**

The Central Valley Water Board always pursues soil vapor testing at chlorinated solvent sites. Nestlé conducted a comprehensive soil vapor investigation from 2006 to 2008 that included testing numerous soil vapor samples and the collection of indoor air samples from a building believed to be most at risk. The results did not indicate a risk to public health. Additional evaluation in 2016 of vapor intrusion pathways using state and federal guidance in effect at that time also concluded there was no risk from TCE to the public.

### **Is the state taking any additional steps regarding screening levels for vapor intrusion?**

The vapor intrusion guidance currently is being updated in accordance with US EPA standards. In January 2019, the San Francisco Bay Regional Water Board developed stricter environmental screening levels for TCE in soil vapor. Other regional boards also have been using the stricter screening levels.

### **Have the new screening levels produced any findings of concern?**

Vapor intrusion occurs when volatile organic compounds in groundwater or shallow soil move into above-ground structures. In the first sampling under the new guidelines, the findings confirm that TCE in shallow groundwater has not migrated extensively beneath downtown Ripon and suggests vapor intrusion is not occurring there. But there are two areas near the former Nestlé plant – that closed in 1994 - where additional investigation is warranted. The sampling also detected elevated concentrations of tetrachloroethylene (PCE), an organic compound toxic to humans and commonly used in dry cleaning and automotive products. Exposure can damage respiratory and nervous systems and possibly cause cancer. The PCE is likely associated with former dry cleaners or commercial and industrial activities in the downtown area.

### **Why hasn't the State Water Boards pursued more federal assistance?**

At the recommendation of the state, the US EPA investigated the Nestlé site in the 1990's, but after assessing and evaluating the risks, determined the plant did not qualify for their Superfund Program. That does not preclude the Central Valley Water Board from requiring the cleanup under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Porter-Cologne Water Quality Act. Further, under both state and federal laws governing the investigation and cleanup of a

hazardous materials discharge, the polluter is required to absorb the cost of all cleanup and oversight activities.

## **Are the Water Boards satisfied with the remediation progress to date?**

Our goal is to protect the quality of all waters of the state and to protect human health and the environment. Addressing contamination in our supply systems by any harmful chemicals is at the core of our mission. Our technical experts are diligently overseeing Nestlé's efforts to ensure that Ripon's drinking water is not contaminated by chemicals originating at the plant.

## **Additional Resources**

More information on this Project can be found on the Water boards [GeoTracker website page specific to this project](#). Tabs at the [top of this page](#) show the viewer all the recent reports, as well as community outreach efforts.

- **Central Valley Regional Water Quality Control Board** - Stewart Black, (916) 464-4842, [stewart.black@waterboards.ca.gov](mailto:stewart.black@waterboards.ca.gov)
- **City of Ripon** - Kevin Werner, (209) 599-0235, [kwerner@cityofripon.org](mailto:kwerner@cityofripon.org)
- **State Water Boards Division of Drinking Water**, District 10 - Bhupinder Sahota, (209) 948-7696
- **Nestlé** - Megan Villarreal, [Megan.Villarreal@us.nestle.com](mailto:Megan.Villarreal@us.nestle.com)

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