

CITY OF SANTA ROSA
BOARD OF PUBLIC UTILITIES

TO: BOARD OF PUBLIC UTILITIES
FROM: JENNIFER BURKE, DEPUTY DIRECTOR WATER RESOURCES
WATER DEPARTMENT

SUBJECT: PLAN FOR LIFTING THE ADVISORY IN THE FOUNTAINGROVE
AREA

AGENDA ACTION: MOTION

RECOMMENDATION

It is recommended by the Water Department that the Board, by motion, accept the report on the plan for lifting the advisory from the Water Quality Advisory area in a portion of Fountaingrove.

EXECUTIVE SUMMARY

On November 10, 2017, Santa Rosa Water issued a Water Quality Advisory for an isolated area of Fountaingrove due to contamination that was caused by the October fires. In collaboration with State Water Board Division of Drinking Water (DDW) and US EPA regulators as well as water quality experts, Water Department staff has conducted a thorough investigation to confirm that the fire caused the contamination, to identify the sources of the contamination, and guided by the data, determined that targeted replacement of the system would likely restore water quality. The City has completed replacement of all water service lines and blow off valves, as well as targeted replacement of three mainlines in the Water Quality Advisory Area. Working in collaboration with DDW, the Water Department has developed a plan for lifting the water quality advisory in the Fountaingrove Area, which consists of sampling to confirm water quality has been restored as well as post advisory flushing and monitoring to ensure the contamination has been remediated and will not re-occur over time.

BACKGROUND

On October 8th and 9th, 2017, the Tubbs wildfire burned through large portions of the City of Santa Rosa destroying approximately 3,000 residential and commercial structures. The burned areas, including the Fountaingrove neighborhood, were mandatorily evacuated and residents were not allowed to return to their properties until the beginning of November.

On November 8th, Santa Rosa Water received a taste and odor complaint from one of the residents in the burned area of Fountaingrove. In response, Santa Rosa Water staff took water samples and found a volatile organic compound (VOC) contamination, including benzene. Benzene was detected at levels above the allowable regulatory limit (the maximum contaminant level or MCL) or 1 part per billion (ppb). Working with the State Water Resources Control Board Division of Drinking Water (DDW), the City immediately isolated the area and issued an advisory water quality notice for the advisory area (Advisory Area). The Advisory Area includes 352 properties, of which 13 homes remained after the fire.

Santa Rosa Water staff, working in collaboration with the DDW, the United States Environmental Protection Agency (USEPA), Sonoma County Health Services, APEX Forensics, and a UC Berkeley professor, conducted an extensive investigation and determined the contamination was caused by the wildfires that burned through the affected area that produced ash, soot, and other debris and caused thermal degradation (i.e., melting, burning, and pyrolysis) of plastic pipes which contained contaminants. These contaminants were then back-siphoned into the distribution system where they adsorbed onto and/or absorbed into components of the water infrastructure, with highest concentrations of contamination being found in the water service lines, the line from the water main to the meter.

In mid-January, upon determining that the highest concentrations of contamination were found in the water service lines, Santa Rosa Water staff isolated the water services lines to burned homes from the water supply that is serving the 13 surviving homes. Due in part to isolating the water service lines, the weekly sampling of the water being provided to the 13 homes showed the water was below the MCL of 1 ppb for benzene since mid-January and since mid-May the weekly sampling of the 13 homes shows no contamination and that the water is meeting all regulatory drinking water requirements.

Guided by the data and working with our expert partners, DDW and USEPA, Santa Rosa Water implemented a phased approach to resolving the water contamination issue, replacing the contaminated water service lines to all 352 properties in the Advisory Area as well as replacing all the blowoff valves in the Advisory Area. In addition to replacing parts of the water system in the Advisory Area, Santa Rosa Water has been routinely flushing the system and sampling all 65 hydrants within the Advisory Area on a weekly basis. The weekly sample results from 51 hydrants show no detects of benzene. Eleven of the hydrants have shown minimal levels of benzene, on an infrequent basis, below 0.5 ppb which is below the MCL of 1 ppb. Three hydrants located at Stony Oak Court, Foxtail Court and Blue Sage Court have shown consistent levels of benzene around 0.5 ppb, which is below the MCL of 1 ppb. To address this, the main segments on the three courts was replaced.

PRIOR BOARD OF PUBLIC UTILITIES REVIEW

On February 1, 2018, the Board conducted a study session to review the water quality issue in Fountaingrove. On February 15th, March 1st, March 15th, May 24th, June 7th, and August 2, 2018 staff provided staff briefing updates on the water quality issue in Fountaingrove.

On March 27, 2018 the Council and the Board held a special joint meeting to review the water quality issue in Foutaingrove.

On May 17, 2018, the Board approved construction contract No. C02213 with North Pacific Corporation for replacement of water services affected by the Tubbs Fire (outside the advisory).

On May 24, 2018, the Board approved construction contract No. C02222 with Terracon Constructors, Inc. for replacement of water services affected by the Tubbs Fire inside the advisory zone. On August 16, 2018 the Board, by motion, approved a Change-of Scope contract change order and additional contingency for contract No. C02222 to replace 8" Water Mains on Foxtail Court, Stony Oak Court and Blue Sage Court.

ANALYSIS

Working in collaboration with DDW, the Water Department has developed a plan for lifting the water quality advisory in the Fountaingrove Area. The plan for lifting the advisory consists of:

- Sampling all service lines for Volatile Organic Compounds (VOCs) after they have been replaced. Service lines will be replaced, flushed and will sit for seven days before being sampled. Samples will be first draw samples.
- Re-sampling 10% of the service lines to confirm results. Service lines will sit for seven days before being sampled and samples will be first draw samples.
- Once all service line and blow off replacement is complete, conduct weekly sampling of hydrants for 4 weeks. Samples will be post flush samples.
- All results meet State and Federal regulations, lift advisory, tentatively beginning of October.

The City shared the water quality data and the above plan with the public at a Special City Council meeting on Friday, September 7, 2018 and at a community meeting on September 19, 2018 at the City's Utilities Field Office.

Once all requirements of the above plan are met and the advisory is lifted, the City will issue press releases informing that the advisory has been lifted, as well as inform the community through our e-newsletter, post on the City's dedicated water quality advisory website – srcity.org/WQAdvisory, and on the City's social media sites. The City will provide a problem corrected notice to each of the homes in the advisory area as a door hanger and will send the notice to each of the properties in the Advisory Area.

After the advisory has been lifted, to ensure the contamination has been remediated and will not re-occur over time, Santa Rosa Water will conduct post advisory flushing and monitoring as follows:

Monitoring

- The first two months following lifting of the advisory - sample all 65 hydrants and three sample stations in the advisory area for VOCs every two weeks.
- Months three through six following lifting of the advisory - sample all 65 hydrants and three sample stations in the advisory area for VOCs once per month
- Month six through twelve following the lifting of the advisory - sample all 65 hydrants and three sample stations in the advisory area for VOCs once per quarter
- One year following the lifting the of the advisory – return to regulatory requirement of quarterly sampling of VOCs, which will include a sample from two sample stations in the advisory area.

Flushing

- All flushing will be done in accordance with the Best Management Practices (BMP) for Flushing Mains thru Blow-offs or Hydrants Inside the Fire Impacted Areas
- All flushing activity shall be documented, including metered water loss.
- Water volumes flushed shall be in accordance of the BMP and consist of twice the volume of water replacement per segment flushed.
- Flushing frequency shall be done in a manner that maintains adequate chlorine residuals for water quality.

FISCAL IMPACT

Not applicable – there are no fiscal impacts to the Water Department from lifting the advisory.

ENVIRONMENTAL IMPACT

This action is exempt from the California Environmental Quality Act (CEQA) because it is not a project which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, pursuant to CEQA Guideline section 15378.

BOARD/COMMISSION/COMMITTEE REVIEW AND RECOMMENDATIONS

Not applicable.

ATTACHMENTS

- Attachment 1 – Plan for Lifting the Water Quality Advisory in the Fountaingrove Area

CONTACT

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