



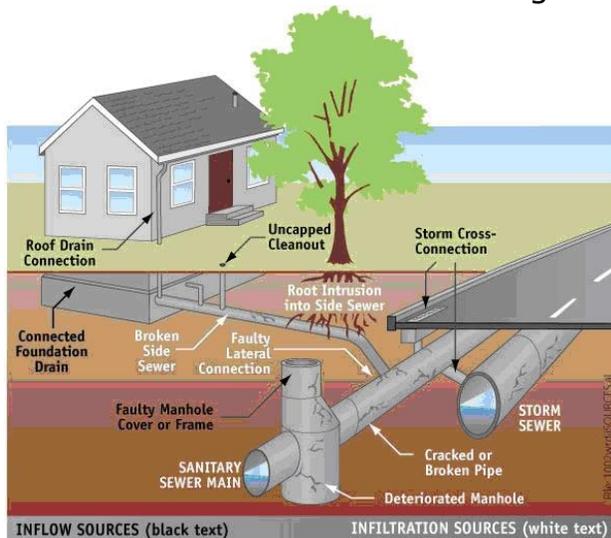
## CALAVERAS COUNTY WATER DISTRICT

120 Toma Court • PO Box 608 • San Andreas, CA 95249 • (209) 754-3543 • ccwd.org

### Information Regarding Smoke Testing of CCWD's Sewer Systems

#### What is the purpose of smoke testing?

A wastewater system or sanitary sewer system is designed to transport wastewater from your home to a treatment facility. In dry weather it usually does so without issue. However, in wet weather, storm-related runoff may leak into the sewer system, resulting in an increased volume of flow the system wasn't designed to handle. This is called inflow and infiltration (I&I) and involves storm water runoff getting into the sanitary sewer system.



*Inflow such as depicted here can result in an overburdening of the sanitary sewer system, which may result in Sanitary Sewer Overflows (SSOs).*

Smoke testing is one of the most cost-effective ways to locate defects in CCWD's main sewer line and service laterals that connect to residents. This is why CCWD uses smoke testing programs as a cost-effective method to assess the condition of its sanitary sewer system.

#### What is a smoke test?

Smoke testing is the process of injecting artificially produced smoke into a blocked off sewer pipeline segment to see where the smoke emerges. If the sewer is in good condition, the forced smoke will emerge from manhole lids

along the line and house vents on the roof. If the line has defects, the smoke will find the breaks and escape through the problem areas.



*High-capacity blowers are used to pump smoke into manholes.*

It is not unusual to see plumes of smoke issuing up from peculiar places, such as cracks in the street, or in residential yards during smoke testing. Each member of CCWD's crew conducting the smoke testing will have proper identification and use well-marked vehicles.

While smoke is being injected into the sewers, crews fan out around the area to observe and flag the places smoke escapes. Technicians document and/or mark up the location(s) where defect(s) are found for repairs. CCWD will generalmake all repairs on District infrastructure. Customer's will be immediately notified should repairs on personal property be necessary. found even on a customer's service lateral.

### **Is the smoke hazardous?**

The smoke utilized during smoke testing is commonly used in the industry. The smoke is not harmful to you, your pets or house plants. It will not harm or stain clothes, drapes or furniture. It is not flammable and does not create a fire hazard. While the smoke is not considered harmful, it is recommended to avoid prolonged periods of exposure. If smoke appears from a drain inside your residence, please open windows and ventilate well to dissipate the smoke.

### **Will I have smoke coming into my house?**

Probably not, but it is possible that smoke could enter a residence through a drain trap which has dried out or some other plumbing defect such as an un-trapped washing machine drain, cracked pipe, garbage disposal or dishwasher not installed correctly.

Please note that if smoke can enter your home, dangerous sewer gases can also. If smoke gets inside of your home, please call a plumber or locate one of CCWD's smoke-testing crew members and they may be able to assist you in locating where the smoke entered your home.

### **What if I see smoke in my yard or venting out of my neighbor's roof?**

That may indicate a break or other defect in the sewer line.



*In this photo, a defect in an underground sewer pipe is allowing smoke to escape up through the ground.*

Roof vents are where the smoke should be released or seen. This is good! However, smoke doesn't always originate at the spot the smoke plume emerges. Sometimes smoke will escape through a defect in the sanitary sewer line, then travel or migrate along the pipe until it finds a way to rise to the surface.



### **What if I don't see any smoke at all?**

This may be good. If the sanitary sewer line is in good condition, the smoke will migrate along the sewer network and appear at a distant manhole or

some other area. CCWD staff expects to observe smoke appearing in locations such as the sewer vent pipe on top of a residence. But in some cases, the smoke doesn't reappear at all.

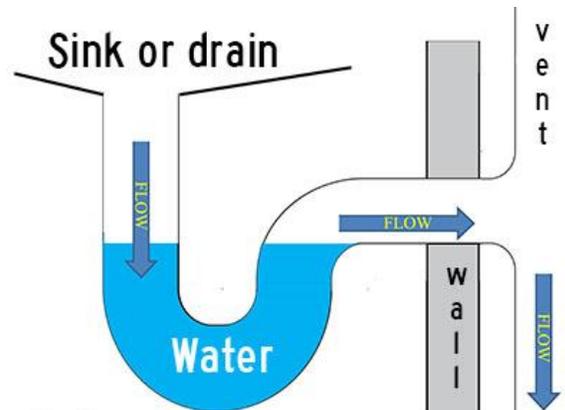
### **Should I do anything to prepare?**

During smoke testing, field crews force smoke into the sewer system. The possibility exists for smoke to enter a residence, due to infrequently used drains or a defect in the personal sewer plumbing.

A drain trap is the S-shaped elbow in the pipe typically found under sinks. Its purpose is to capture and hold water in the trap's curve.

This water in the trap creates a type of seal and blocks smelly gases from rising up through the sewer and into the home. This trap should also keep the smoke from entering your home.

A dry drain trap could be found in drains which are not used regularly and the water has evaporated. Water should be run in these isolated areas monthly to maintain the drain seal in proper operating condition.



### **Do I have to be home when smoke testing is performed?**

Homeowners do not need to be home and at no time will a field crew member need to enter your home.

### **Can the smoke activate the smoke alarm?**

Yes, smoke alarms may be activated during smoke testing. If smoke enters your home, open windows and doors for ventilation. If you are not sure or have any doubts about the smoke call 911.

### **Will the smoke harm pets?**

The smoke is not harmful to pets, but you can place your pet in an area of the home that has no plumbing, or leave windows cracked for good ventilation. If your plumbing is properly connected and all the drain traps are sealed, no smoke should enter your home.

### **Where can I get more information?**

Those with additional questions or concerns may contact the Calaveras County Water District Customer Service Department at (209) 754-3543 or [customerservice@ccwd.org](mailto:customerservice@ccwd.org). More information is available at [www.ccwd.org](http://www.ccwd.org).