

Be Sewer Savvy:

Notes, tips & tricks to help keep your sewer pipes in tip-top shape.

- ✓ Protect your home
- ✓ Protect your business
- ✓ Avoid costly repairs



And prevent
water pollution,
too!



Be Sewer Savvy!

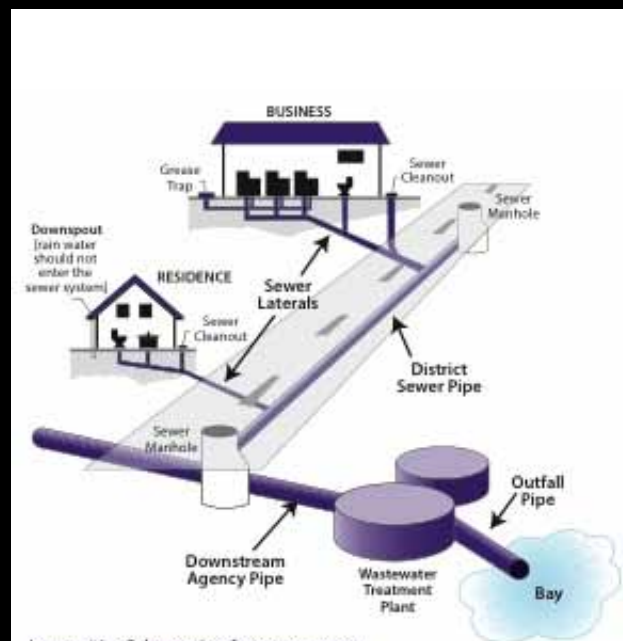
As homeowners, renters, or business owners and employees in San Mateo County, we all depend on a well functioning sewer system. Invisible to most of us, this complex array of underground pipes carries away raw sewage to its destination at the sewage treatment plant, keeping our communities healthy and free of odor, and protecting the environment.

But the sewer system is also vulnerable to damage that impairs its ability to work properly. The consequence: sewer pipe backups and overflows that can put humans and animals at risk of disease, damage private property, and harm the environment. Cleanups and repairs are usually costly and can lead to increased sewer service rates for everybody.

This booklet offers best practices to prevent some of the most common causes of sewer overflows, and help you keep your sewer pipes in tip-top shape.

As a property owner, you own—and are responsible for maintaining—the sewer lateral (pipe) that connects your house to the sanitary sewer mains in the street or on the easement. See schematic at right.

Sewer pipes are designed to carry only three types of waste: wastewater, human body wastes, and toilet paper. If it ain't one of these, it doesn't belong in the sewer!



The wastewater goes through the pipes in your house or business, then flows into a sewer lateral and drains into the district sewer pipes (typically located in the street or an easement). It travels from the district sewer pipes to the pipes maintained by the city or town located between the district and the treatment plant. Eventually, the wastewater flows into a wastewater treatment plant to have harmful chemicals removed before being discharged into the Bay.

Sewer Pipe Hazard #1: Tree Roots

What's the problem?

Tree roots can be very aggressive in their search for moisture, especially during dry weather. Often sewer pipes are the nearest source of water. Tree roots are attracted by water vapor that escapes from the pipes to the cold soil surrounding them, especially near small cracks and loose joints. Once the roots have pried their way into the sewer system, they can fill pipes completely with hair-like root masses. Tissue paper, grease and other debris in the sewage get caught in the roots, eventually leading to a complete obstruction or even breakage of the sewer pipe. Severe cases of root damage require costly replacements.



Sewer Savvy Practices

- Be aware of the location of the sewer pipe laterals on your property. Before planting any trees or hedges near the sewer pipes, consult with an arborist or a local gardening center about suitable choices based on the plants' expected root growth.
- Choose piping materials that are more resistant to roots entering the pipe, such as concrete or polyvinylchloride (PVC) pipe. PVC also has the advantage of fewer joints, reducing the risk of root intrusion.
- Schedule regular inspections and cleanings of your sewer pipes. Professional plumbing companies can video your sewer lateral to determine the condition and if any repairs are needed.
- Tools commonly used to remove tree roots from sanitary sewer pipes include augers, root saws and high-pressure flushers. Contact a local plumbing company for more information.



SEWERprising fact:

As a general rule, tree roots will extend up to 2.5 times the height of the tree, some species even 5 to 7 times.

Sewer Pipe Hazard #2: Fats, Oils and Grease (FOG)

What's the problem?

Fats, Oil and Grease are not just a problem for your arteries and your waistline: they're bad for sewers, too!

Fats, Oils and Grease come from:

- Meats
- Lard
- Cooking oil
- Shortening
- Butter and margarine
- Food scraps
- Baked goods
- Sauces and gravy
- Dairy products

Fats, oil and grease can get into the plumbing system. Over time, they can build up inside the pipes, even blocking the pipes entirely. This build-up can lead to sewer overflows, which create health hazards, damage your home, and threaten the environment.

First Signs of a Sewer Pipe Problem

Are you noticing gurgling noises from toilet bowls and wet areas forming around floor drains after you've completed the laundry? These first signs may indicate that your sewer pipes are obstructed or otherwise impaired and need your attention.

Doing this...



can lead to this!



Be Sewer Savvy and Stop the FOG!

The answer to the Fats, Oils and Grease (FOG) problem is to keep it out of the drains:

1. Never pour Fats, Oils or Grease down your sink or tub drains or into toilets.
2. Scrape grease and food scraps from trays, plates, pots, pans, utensils, grills and cooking surfaces into a container and put it in the garbage. Or, if your area has a curbside compost collection program, you can wipe the grease with napkins or paper towels, then put the towels and grease into your compost cart. Do not put containers of FOG into your compost cart.
3. Do not put grease down garbage disposals. Put baskets/strainers in sink drains to catch food scraps and other solids, and empty the drain baskets/strainers into the garbage.
4. Tell your family, friends, and neighbors about not putting Fats, Oils and Grease in the drains.
5. Call your local Sewer District if you have any questions.



Pour grease into a can and when full, toss the jar into the trash.



Let bacon grease and other fats harden.



Wipe the grease off with paper towels and discard the towels in the trash or food scrap bin.

For Commercial Property Owners

Restaurants, large commercial buildings such as apartment complexes, and other commercial properties must have grease traps or interceptors that keep grease out of the sewer system. For a grease trap or interceptor to work correctly, it should be properly designed, installed and maintained.

Need help?

There are many companies in the Bay Area that will come and service your traps and interceptors and recycle the oil for bio-fuel. Check with your local recycling program.



See www.recycleworks.org/recycled_oil.html for more details.

Sewer Pipe Hazard #3: Water Inflow & Infiltration*

*That's just a fancy way of saying rain and groundwater can leak or seep into the sewer system.

What's the problem?

Our sanitary sewer systems are designed to transport wastewater to the treatment facility. Separate from the sewer pipes, storm drains are meant to capture rainwater, which doesn't need treatment. However, rainwater can enter the sewage system through illegally connected downspouts, damaged or uncapped lateral cleanouts and defective manholes. This is called "inflow." In addition, groundwater can seep into the sewer system through cracks, joints and voids in the pipes, known as "infiltration."

Although sanitary sewer systems are designed to accommodate some excess water, too much of it can overwhelm the systems, especially when it is raining. This can cause sewage overflows that back up into homes and businesses without backflow prevention devices, and spill into roads, creeks and onto beaches. Cleanup costs as well as increased operational costs from pumping and treating the additional water can lead to higher sewer service charges. Excess water also deteriorates the sewer system, potentially causing pipe collapses and sinkholes in your neighborhood.

SEWERprising fact:

Plumbing companies use remotely controlled camera "tractors" to film sewer pipes from the inside. The footage reveals defects such as cracks, root intrusions and leaky joints.

inflow: water entering sewer pipes



through cracks and loose connections



sewer overflow due to infiltration

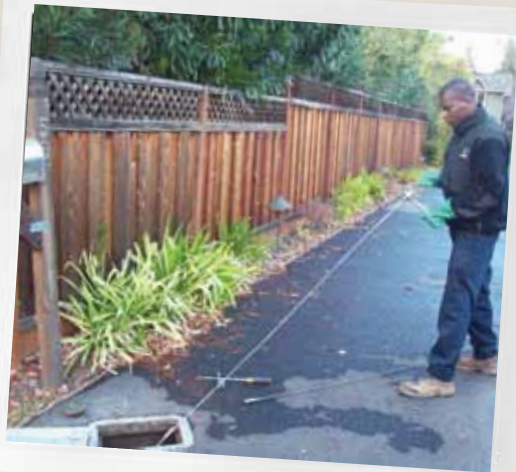
If you see an overflowing sewer manhole cover like this, please notify us immediately!

CALL 650-363-4100

Sewer Savvy Practices:

Preventing Inflow & Infiltration

- Check your gutters and drains to ensure they are not connected to the sanitary sewer system. If they are, contact a plumber to disconnect the gutter and/or drain from the sanitary sewer system.
- Keep your lateral cleanout caps tightly closed and replace any missing caps.
- Avoid planting trees and shrubs over sewer pipes, as roots can damage the pipes.
- Schedule regular inspections and cleanings of your sewer pipes. Professional plumbing companies can use various methods including video and dye testing to determine the condition of your sewer lateral and if any repairs are needed.
- Replace any broken, leaky or problem sections of your sewer lateral (pipe).



A qualified contractor can use various methods to inspect and clean your sewer pipes.

Sewer vs. Storm Drains: Do You Know the Difference?



The **Sanitary Sewer System** is designed to collect wastewater from plumbing systems inside buildings, such as toilets, showers, sinks, washing machines and floor drains. Pipes transport the wastewater to a treatment plant for processing, before releasing the treated water into San Francisco Bay or the ocean.



The **Storm Drain System** is designed to collect rainwater from the street, driveways, building roofs and foundation drains to prevent flooding in urban areas. Anything that flows or is discharged into the storm drain system goes directly into local creeks or San Francisco Bay without any treatment.

Inside this edition...

Be Sewer Savvy: Notes, tips & tricks to help you avoid costly repairs.

(And, prevent water pollution, too!)



REPORT SEWER OVERFLOWS!
CALL 650-363-4100
Please notify us immediately!

HELPFUL PHONE NUMBERS & WEBSITES

Sewer Districts..... 650-363-4100

- Burlingame Hills Sewer Maintenance District
- Crystal Springs County Sanitation District
- Devonshire County Sanitation District
- Edgewood Sewer Maintenance District
- Emerald Lake Heights Sewer Maintenance District
- Fair Oaks Sewer Maintenance District
- Harbor Industrial Sewer Maintenance District
- Kensington Square Sewer Maintenance District
- Oak Knoll Sewer Maintenance District
- Scenic Heights Sewer Maintenance District

Building and Planning—County Code Compliance Enforcement 650-363-4825

Environmental Health—Toxics and Hazardous Waste..... 650-372-6200

Sheriffs Office—Non Emergencies, Report Illegal Dumping 650-363-4911

Sewer Smart www.sewersmart.org

California Association of Nurseries and Garden Centers..... www.cangc.org

IMPORTANT INFORMATION
ABOUT YOUR SEWER SERVICES.
Your help is needed to protect
the Bay, and prevent costly repairs
to the sewer system.
Please read and keep this handy
guide for future reference.

County of San Mateo
Sewer Maintenance Districts
555 County Center, 5th Fl.
Redwood City, CA 94063
www.co.sanmateo.ca.us/sewers

