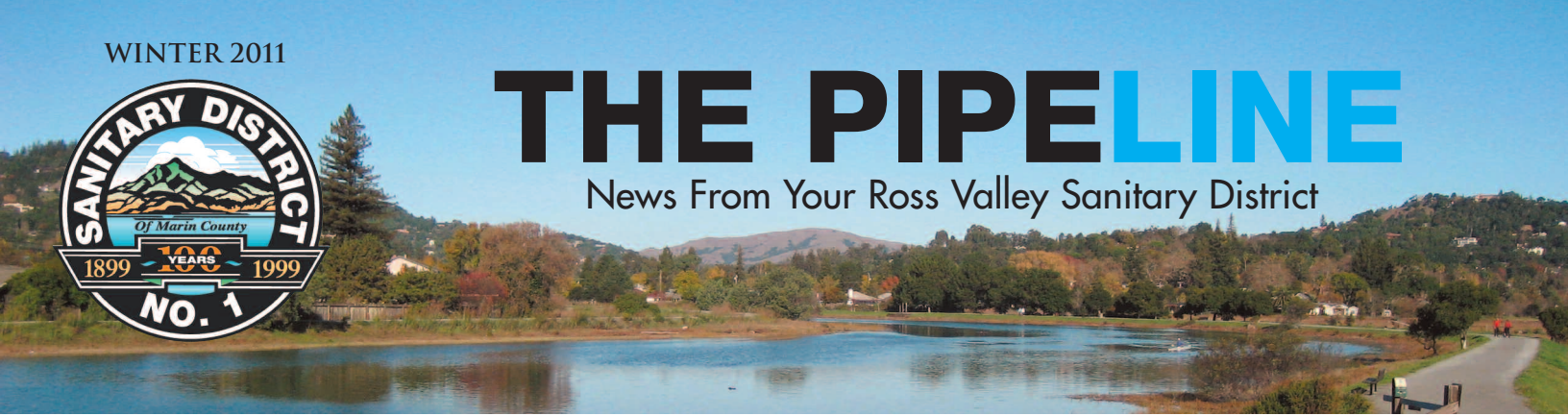


# THE PIPELINE

News From Your Ross Valley Sanitary District



## District's Innovative Pipe Bursting Program Receives National Attention!

The December issue of *Municipal Sewer and Water* magazine features our innovative, in-house Pipe Bursting program that promises to save our ratepayers literally millions of dollars.

As we have been reporting to you, your District's board of directors approved a pilot program last spring to evaluate a new technology to replace old pipe. In the last issue of *The Pipeline*, the early results of the pilot program were better than expected - in fact quite dramatic - as our crew put in a record amount of pipe at a significant savings over traditional methods.

Our success is good news for agencies around the nation that are struggling with the costs and the desperate need to replace old water infrastructure.

The pipe replacement technique pulls a steel bursting head through the old pipe using a hydraulic pulling system. As the old pipe is shattered, new pipe is pulled behind the head to replace the old pipe. There is no need to dig a trench to remove the old pipe, which is where significant savings occur.

Pipe Bursting has been employed by plumbers for years to repair smaller pipe, but using the technology to repair sewer mains and bringing the system in-house are exciting breakthroughs!

Pipe Bursting will also allow us to put more pipe in the ground each year. This is important as there are many miles of public pipe that are ready for repair now. Keep an eye out for us when we are in your neighborhood. We would love to show you how the technology works!



## Big Sewer Spills: An Unexpected Way to End a Good Year

The District's considerable momentum in repairing aging sewer pipes this past year was marred by two unexpected events in December that resulted in large sewer spills.

Fortunately nobody was hurt and while there is no such thing as a good spill, these events may have caused little damage to the environment as the sewage was heavily diluted with rainwater and flushed by high tides. WildCare reported to the *Marinscope* newspapers that no wildlife had been brought into its care facility as a result of the spills.

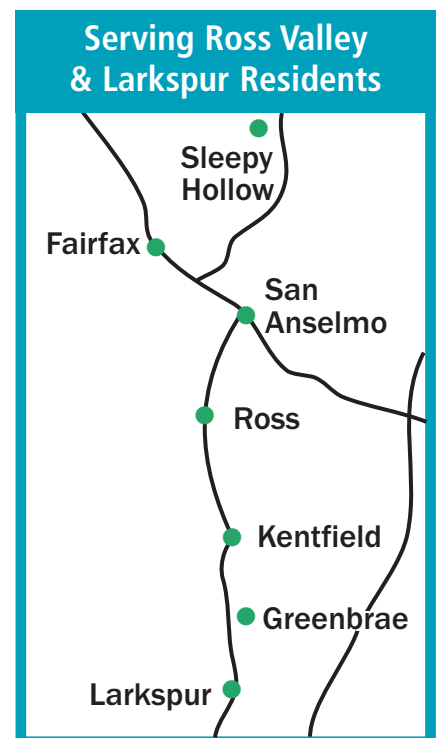
As a responsible agency, we want to provide you with accurate information about what we have learned about the cause of the spills and answer concerns

raised by some people about the spill notification (see notification on page 3).

To understand the two December spills, we need to look back at events a month earlier that set the stage for the spill events. As you may have noticed, the District was wrapping up its construction season in November having completed its Woodland-College-Goodhill capital improvement project and Segment One of its Kentfield Force Main (KFM) project.

Everything had gone quite well with both projects, which was gratifying if not surprising considering the size (about \$8.5 million) and scope of the work that was accomplished, but developments on the final day of the KFM project would change this picture quickly.

(Continued on page 2)



## Spills From Page 1

The KFM project involved replacing a major pressurized pipe that runs under South Eliseo Drive and along the berm next to Corte Madera Creek. The pipe serves 60% of the community and was scheduled for replacement over a two-year period. The original pipe was installed in the 1970s using what was then believed to be a state-of-the-art pipe material called Techite. Years after the pipe material was installed throughout the U.S. and well before it should need to be replaced, it began to fail resulting in numerous nationwide spills and lawsuits.

With Segment One of the Techite pipeline replaced (the South Eliseo section), the final step for the year was to connect the new pipe to the old pipe running under the berm along the creek that was scheduled for repair in 2011, and repressurize it. In completing this last step, the old pipe began failing catastrophically in multiple locations.

The failures clearly indicated that waiting until next year to complete the KFM project was not an option. On December 6, 2010 the RVSD Board of Directors approved an emergency repair plan that would complete the Techite pipe replacement immediately and a press release on the emergency plan was issued.

In the following weeks the emergency plan to finish the KFM project progressed at an unprecedented pace thanks to the near around-the-clock work by Marin contractor Maggiora-Ghilotti. In replacing the balance of the Techite under the berm along Corte Madera Creek, the District was able to shut down and bypass the pipe by relying on its 30-inch Ross Valley Trunk Line that runs under Creekside Park and Greenbrae.

### December 17-18: The First Spill

The first of the two major sanitary sewer overflows (SSO) began Friday evening on December 17 in Kentfield. RVSD crews were onsite prior to the spill to monitor the bypass that was handling wastewater flows while the KFM was shutdown. While engineers estimated that the bypass was capable of handling

12-million gallons of wastewater per day and it had already easily handled 5 1/2 inches of rain just 60 days earlier, it was still prudent to verify that the bypass system was running smoothly during the weekend storm (predicted to be lighter).

At about 9:30 p.m. a Category 2 SSO



*A 3 1/2 foot piece of Kent School's track was just some of construction debris pulled from District pipes during the spill cleanup.*

began on Stadium Way in Kentfield, which was a first clue that something was not right. Category 2 spills are less than 1,000 gallons and because they often do not pose a serious threat to public health and the environment, reporting the spill in most cases is required within 30 days. While crews were able to manage and clean up the spill that evening, what surprised and concerned them was that the SSO had occurred where the District's extensive Woodland-College-Goodhill capital improvement project had recently been completed.

Rains increased into the night and by about 11 p.m. manholes in the same area were filling up very quickly (surcharging) and began overflowing. This unusual situation suggested a serious blockage of some kind had occurred and the problem was dramatically impacting the capacity of the bypass. With the system suddenly and mysteriously overwhelmed, the District was forced to divert wastewater flows into the Kentfield Force Main system that was under repair.

The Category 2 SSO that began earlier was now declared a Category 1 (1,000 gallons or more), and District staff con-

tacted the Office of Emergency Services immediately (see notification on page 3).

"Our crews worked through the weekend to mitigate and clean up the spill and in doing so discovered construction debris in the pipes including large pieces of road asphalt, rubber from the Kent Middle

School track, wire, and more," said Brett Richards, General Manager of Ross Valley Sanitary District.

Based on this discovery, it seemed clear that the debris played a significant role in causing the spill but what was unclear (and very troubling) was how the debris got into the pipes. As the District investigation continued between the

Christmas and New Years holidays (after the second spill), another dramatic discovery was made. An existing 27-inch pipe, which runs parallel to a newly installed 30-inch pipe, was crushed in two places under the running track at Kent Middle School next to the work site of the Woodland-College-Goodhill improvement project.

While we believe that either the debris or the damage found to the 27-inch pipe was great enough to cause the first spill, we expect that together these two problems were responsible for the 842,000-gallon SSO that flowed into storm drains and then into the Corte Madera Creek.

### December 22: The Second Spill

As mentioned above, the Kentfield Force Main was bypassed while undergoing emergency repair using the 30-inch Ross Valley Trunk Line, but it had to be brought back into service once the first spill on December 17/18 became a Category 1. The KFM held up over the weekend and into the next week while crews worked to solve the problem upstream at the first spill, but on Wednesday, December 22, the old Techite pipe failed once again.

The second spill required that the KFM be shut down, but unfortunately this

*(Continued on next page)*

caused the upstream site where the first spill occurred to become active again. At the end of the event 1.8 million gallons of wastewater spilled into Corte Madera Creek and the adjacent wetlands from the same locations as the first spill.

While this second spill can be looked at as a separate event, the Kentfield Force Main was in fact offline (not in use) when the first spill occurred and the District intended to keep it offline until it was fully repaired. The first spill forced the District to bring the force main back online.

Crews were able to recover about 346,000 gallons of the mixture of sewage and rainwater from the two spills and posted dozens of signs along Corte Madera Creek and its adjacent communities warning the public of the potential health danger of contact with the water. Unfortunately, almost as fast as crews were placing signs someone was removing them.

The emergency plan for the KFM was completed ahead of schedule on December 24. It has performed perfectly and will continue to play an important role in securing the sewer system.

#### **Gaining Perspective and Moving Forward**

These SSOs were unfortunate and unexpected to say the least. The

*(Continued on back page )*

## Spill Notification: Answering Concerns and Providing Solutions

Concerns about the District's spill notification were expressed following the recent spills. While there is no doubt that the District can improve its notification procedures, it is important for our community to understand our efforts to meet existing requirements for spill notification and what steps are being taken to improve communication in the future.

Existing spill notification has two basic requirements that reflect the spill size. A Category 2 spill, which is defined as less than 1,000 gallons and does not come into contact with a body of water, must be reported within 30 days. A Category 1 spill, which is 1,000 gallons or more, must be reported within two (2) hours.

When the first spill on December 17 became a Category 1, the District's first notification responsibility was to contact the Office of Emergency Services (OES). The OES logs show that the District contacted it at 11:35 p.m., December 17th. According to OES representatives, a spill notification triggers the OES to immediately notify the Regional Water Quality Control Board (RWQCB) and County Department of Environmental Health as

well as other state, regional and local agencies. Redundant notification by the District to RWQCB and to the County is also required, and while we are working to confirm if these calls were made during the two-hour timeframe, amid the battle to remediate the spill, there is a chance they were not.

A news article about the spills (*San Anselmo-Fairfax Patch 1/6/11*) reported Sandy Potter of the RWQCB as saying that the District had met all requirements by a wide margin, but as reported by the County, the only notification about the spill it received was a fax sent by the District on Monday, December 20.

While clarifying who got contacted and responded is important, the OES was notified, a photo shows a Marin County Sheriff patrol car was on the scene at 11:57 p.m., and our crews posted warning signs in the area to alert the public.

At this point, more notification to the public and other agencies is not required. In the same *Patch* news article, both Sandy Potter and Rebecca Ng of the Marin County Department of Health said that beyond posting signs around the affected areas, the District isn't required to notify residents. In fact, the article stated that neither of them had heard of any districts having a type of standard notification system – email, phone, or mail – to let residents know about spills.

Like most organizations that have experienced an emergency, we have retraced our steps to evaluate our response to these events and are working with others at ways to enhance our notification procedures. The City of Larkspur is actively looking at how we can work together to improve public notification, the Marin County Department of Health has produced a new form that will improve the communication about spills, and an RVSD board member has a proposal to improve public spill notification that will be reviewed soon. To learn more about the District's response visit [rvsd.org](http://rvsd.org), and under "Meetings" see the Agenda Packet for the January 26, 2011 meeting. Please note the next board meeting as well and plan on joining us!

## Watershed Model On Display

### Friends of Corte Madera Creek Lend Model to District



The beauty of the Ross Valley watershed is on display at your District's headquarters on Kerner Boulevard in San Rafael and we encourage you to stop by and see it!

The model gives you an idea of the flow of creeks, influence of tides on the watershed, and the challenge we all face in protecting this remarkable ecosystem.

Many things we do as a community can have big impacts on the health of the watershed. We can all help by repairing leaky sewer pipes, picking up after your pet, not using harmful pesticides in your garden and properly disposing of pharmaceuticals, oil and other toxins.

Visit [FriendsofCorteMaderaCreek.org](http://FriendsofCorteMaderaCreek.org) and consider joining an organization that is leading the way in protecting our watershed. There are opportunities to adopt a creek, work on habitats, and much more.



# THE PIPELINE

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## Ross Valley Sanitary District

2960 Kerner Boulevard  
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### In The Pipeline

Update on Recent  
Sewer Spills

Grant Dollars to Fix  
Your Sewer Pipe

District Receives  
National Attention

Watershed Model  
On Display

## Get Your Sewer Pipe Fixed with Grant Dollars!

Your leaky or damaged sewer pipe could be causing both of us problems! Older private lateral pipes (the pipes that



run from homes or businesses to the public sewer mains) are often damaged by

roots, earth settling or just plain old age. These pipes not only cause dangerous backups, but during storms tremendous amounts of water flow into the public sewer pipes and cause spills.

If you've got a problem with your pipe, you may qualify for a grant of up to \$4,000 to make repairs! Get full details at [rvsd.org](http://rvsd.org) or by calling our office at 259-2949.

### Spills From Page 3

Environmental Protection Agency is investigating the spills and we look forward to their report. Hopefully these events will draw more attention to the challenge of managing and rehabilitating the ageing infrastructure that we simply can't live without.

As you may be aware, Ross Valley Sanitary District is in the midst of a very aggressive capital improvement plan that is addressing serious infrastructure problems that also afflict cities and towns across America. In short, the sewer pipes in our community and around the country were put in the ground up to 100 years ago and up until about the last 10 to 20 years they have not received adequate attention.

Please invest some time reading other articles in this newsletter to learn more about your wastewater system. The District is submitting a technical report to the Regional Water Quality Control Board and we will have it available for your review once the investigation is concluded. In the meantime, please plan on joining us for an upcoming board meeting. We would appreciate your input and support.



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*Fairfax Resident*

**Dr. Peter Wm. Sullivan - Secretary**

*Larkspur Resident*

**Pat Guasco - Treasurer**

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**Pamela Meigs**

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**Website: [www.rvsd.org](http://www.rvsd.org)**