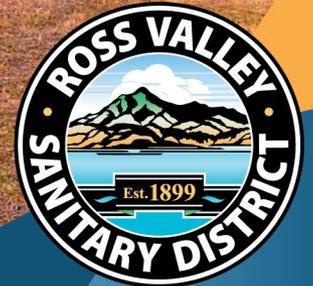


*Putting Your Dollars to Work –*  
Protecting Public Health  
and the Environment

**San Anselmo Sewer Improvements  
Butterfield/Meadowcroft-Arroyo Project  
Open House  
March 28, 2019**



***Ross Valley Sanitary District***

# Ross Valley Sanitary District (RVSD)

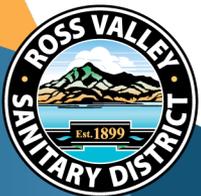
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Established in 1899.

Dedicated to protecting public health  
and preserving the environment.

RVSD service area includes:

Fairfax, San Anselmo, Ross,  
Larkspur, Bon Air, Sleepy Hollow,  
Kentfield, Kent Woodlands,  
Oak Manor and Greenbrae.



# Infrastructure & System Overview

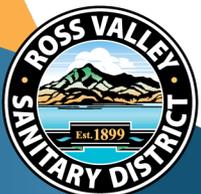
200 miles of collection sewer lines  
and 19 pumping stations  
***collect, pump and transport***  
approximately ***4 million gallons***  
***of wastewater per day*** to the  
Central Marin Sanitation Agency  
(CMSA) for treatment.

19 pump stations:  
5 major pump stations  
2 minor pump stations  
12 lift stations

5,293 manholes  
5,653 pipes

173 mi of small diameter gravity sewer  
11.9 mi of trunk sewer  
12.5 mi of large diameter gravity sewer  
7.83 mi of force mains

Average age:  
64 years



# Capital Improvement Program (CIP)

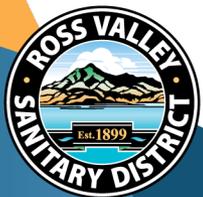
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Much of this infrastructure is over 100 years old.

RVSD is working to rehabilitate underground wastewater pipelines through a construction program that is spread out over more than ***34 miles of road throughout Ross Valley.***

Capital Improvement Program (CIP) construction projects protect public health and the environment by reducing the risk of sewer overflows.

Since 2013, construction has been underway on projects to replace outdated system infrastructure and enhance local wastewater system reliability and efficiency.



**1 Fairfax, Larkspur, San Anselmo Sewer Rehabilitation Projects**  
FY 2016/17 Gravity Sewer Rehabilitation Projects



**2 Kentfield Pump Station 15 Improvements**



**3 Larkspur Pump Stations 12 (Bon Air Center) & 13 (Greenbrae) Rehabilitation**



**4 Ross Common/Upper Shady Lane Sewer Improvements**  
Large Diameter Gravity Sewer Project II-3A



**5 San Anselmo (Nokomis & Meadowcroft) Sewer Improvements**  
FY 2016/17 Gravity Sewer Improvements



## MAP LEGEND

### Gravity Sewer Improvement Projects

#### Project Areas

- FY 2015/16 Gravity Sewer Improvements
- FY 2016/17 Gravity Sewer Rehabilitation Projects

#### Project Pipes

- FY 2015/16 and 2016/17 Rehabilitation
- FY 2016/17 Gravity Sewer Improvements

### Large Diameter Gravity Sewer Rehabilitation Projects

- Large Diameter Gravity Sewer Project II-1
- Large Diameter Gravity Sewer Project II-2
- Large Diameter Gravity Sewer Project II-3A

### Gravity Sewer System

- Gravity Sewer
- Large Diameter Gravity Sewer
- Manholes, Rodholes, Other

### Pump Station Projects

- Larkspur Pump Stations 12 (Bon Air Center) & 13 (Greenbrae) Rehabilitation
- Kentfield Pump Station 15 Improvements

### Pump Stations

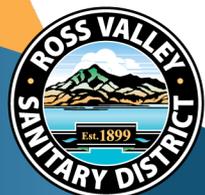
- Major Pump Station
- Minor Station
- Lift Station

### Force Mains

- Major Pump Station
- Minor Pump Station
- Bypass
- Lift Station
- District Boundary



Map is Not to Scale



# Upcoming Project – San Anselmo Butterfield/Meadowcroft-Arroyo

<p><b>INDEX OF DRAWINGS</b></p> <table border="1"> <thead> <tr> <th>SHEET NO.</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td>1</td><td>T-01 TITLE SHEET</td></tr> <tr><td>2</td><td>N-01 NOTES, LEGENDS AND ABBREVIATIONS</td></tr> <tr><td>3</td><td>K-01 KEY MAP</td></tr> </tbody> </table> <p><b>BUTTERFIELD-MEADOWCROFT SEWER PROJECT</b></p> <table border="1"> <tbody> <tr><td>4</td><td>PP-01 MEADOWCROFT DR; STA BEGIN TO 29+00</td></tr> <tr><td>5</td><td>PP-02 MEADOWCROFT DR; STA 29+00 TO 33+00</td></tr> <tr><td>6</td><td>PP-03 BUTTERFIELD RD; STA 33+00 TO 36+50</td></tr> <tr><td>7</td><td>PP-04 BUTTERFIELD RD; STA 36+50 TO 40+00</td></tr> <tr><td>8</td><td>PP-05 BUTTERFIELD RD; STA 40+00 TO 44+00</td></tr> <tr><td>9</td><td>PP-06 BUTTERFIELD RD; STA 44+00 TO END</td></tr> <tr><td>10</td><td>PP-07 WILLOW WAY; STA 10+00 TO 12+00</td></tr> <tr><td>11</td><td>PP-08 WILLOW WAY; STA 12+00 TO END</td></tr> <tr><td>12</td><td>PP-09 BROADMOOR AND BUTTERFIELD RD; SIDE SEWER PROFILES</td></tr> </tbody> </table> <p><b>CONSTRUCTION DETAILS</b></p> <table border="1"> <tbody> <tr><td>13</td><td>D-01 CONSTRUCTION DETAILS</td></tr> <tr><td>14</td><td>D-02 CONSTRUCTION DETAILS</td></tr> <tr><td>15</td><td>TC-01 TRAFFIC CONTROL PLANS PHASE 1</td></tr> <tr><td>16</td><td>TC-02 TRAFFIC CONTROL PLANS PHASE 2</td></tr> <tr><td>17</td><td>TC-03 TRAFFIC CONTROL PLANS PHASE 3</td></tr> <tr><td>18</td><td>TC-04 TRAFFIC CONTROL PLANS PHASE 4</td></tr> </tbody> </table>	SHEET NO.	DESCRIPTION	1	T-01 TITLE SHEET	2	N-01 NOTES, LEGENDS AND ABBREVIATIONS	3	K-01 KEY MAP	4	PP-01 MEADOWCROFT DR; STA BEGIN TO 29+00	5	PP-02 MEADOWCROFT DR; STA 29+00 TO 33+00	6	PP-03 BUTTERFIELD RD; STA 33+00 TO 36+50	7	PP-04 BUTTERFIELD RD; STA 36+50 TO 40+00	8	PP-05 BUTTERFIELD RD; STA 40+00 TO 44+00	9	PP-06 BUTTERFIELD RD; STA 44+00 TO END	10	PP-07 WILLOW WAY; STA 10+00 TO 12+00	11	PP-08 WILLOW WAY; STA 12+00 TO END	12	PP-09 BROADMOOR AND BUTTERFIELD RD; SIDE SEWER PROFILES	13	D-01 CONSTRUCTION DETAILS	14	D-02 CONSTRUCTION DETAILS	15	TC-01 TRAFFIC CONTROL PLANS PHASE 1	16	TC-02 TRAFFIC CONTROL PLANS PHASE 2	17	TC-03 TRAFFIC CONTROL PLANS PHASE 3	18	TC-04 TRAFFIC CONTROL PLANS PHASE 4	<p><b>SANITARY DISTRICT NO. 1</b> MARIN COUNTY, CALIFORNIA</p> <p><b>PLANS</b></p> <p>FOR THE CONSTRUCTION OF <b>GRAVITY SEWER IMPROVEMENTS PROJECT BUTTERFIELD-MEADOWCROFT TO ARROYO</b></p>	<p>TITLE SHEET</p>
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<p><b>DATUM</b></p> <p>HORIZONTAL DATUM IS NAD 83, CALIFORNIA COORDINATE SYSTEM ZONE 3, IPRF 2011 VERTICAL DATUM IS NAVD 88</p>  <p><b>VICINITY MAP</b></p>	<p><b>BOARD OF DIRECTORS</b> DOUG KELLY – PRESIDENT THOMAS GAFFNEY – SECRETARY MARY SYLLA – TREASURER PAMELA WELLS – ALTERNATE SECRETARY MICHAEL BOORSTEIN – ALTERNATE TREASURER STEVE MOORE – GENERAL MANAGER</p> <p>INFRASTRUCTURE ASSETS MANAGER KATHERINE HAYDEN, P.E.</p> <p>DESIGN ENGINEER JASMINE CUFFEE, P.E.</p> <p>DATE _____</p> <p>Prepared By: <b>Harris &amp; Associates</b></p> <p>100% NOT FOR CONSTRUCTION</p> <p>PROGRESS SET</p> 	<p>ROSS VALLEY SANITARY DISTRICT FY2016/17 GRAVITY SEWER IMPROVEMENTS PROJECT</p>  <p>Harris &amp; Associates</p> <p>150-0553.001</p> <p><b>T-01</b></p>																																						



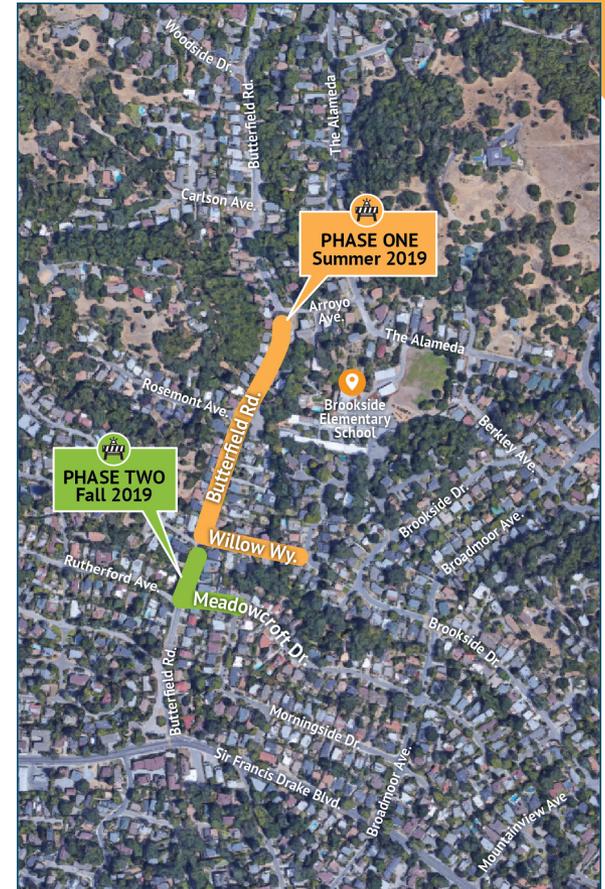
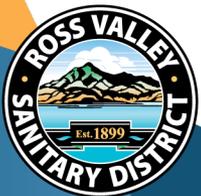
# San Anselmo Butterfield/Meadowcroft-Arroyo

## Project Schedule: Summer 2019 – Fall 2019

Work Hours: Summer—8 AM to 5 PM, Monday – Friday  
Fall—7 AM to 7 PM, Monday – Friday

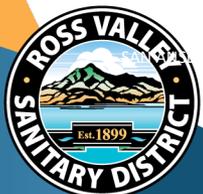
Install 2,300 linear feet (LF) of 8 to 18 inch sewer pipeline to:

- Replace old or outdated system infrastructure
- Enhance wastewater system reliability and efficiency
- Improve system performance during wet weather



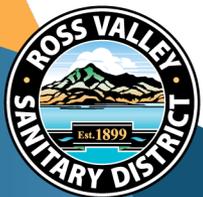


# Open Trench



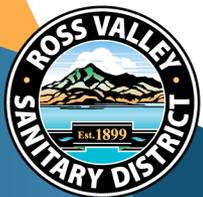


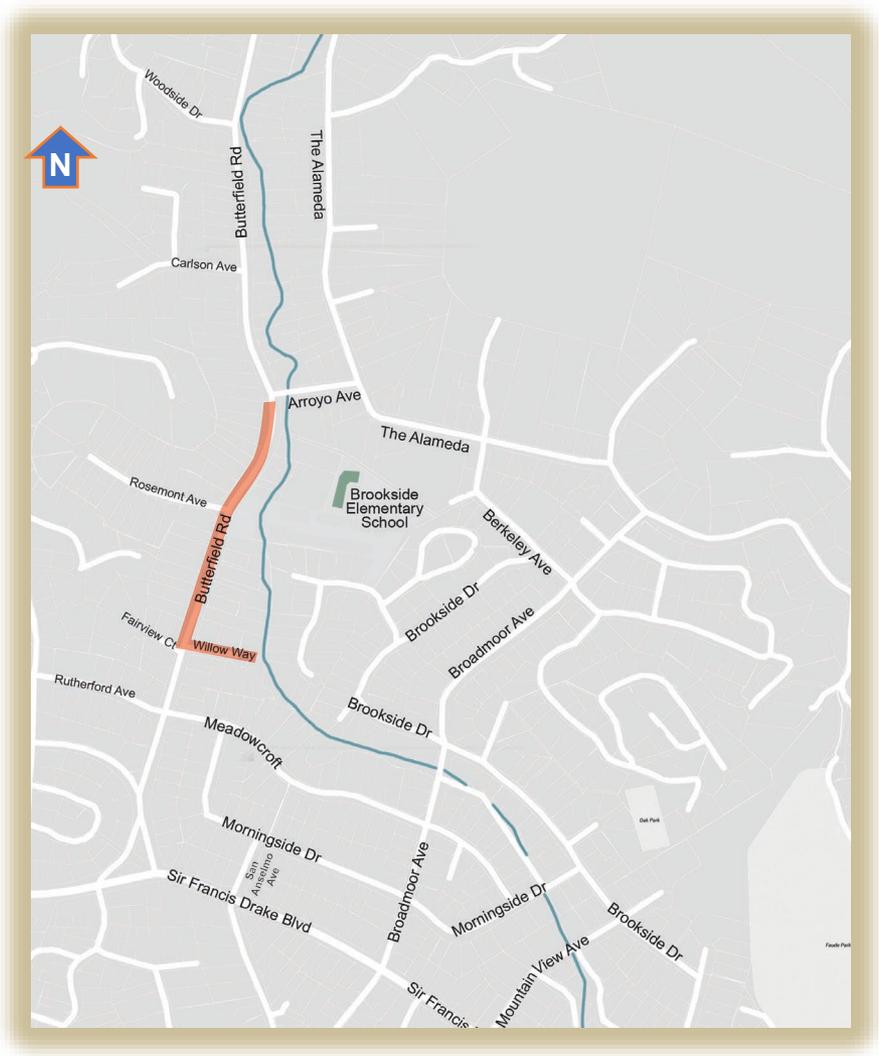
# Pilot Tube Guided Boring





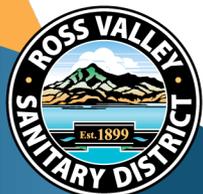
# Bypass Pumping

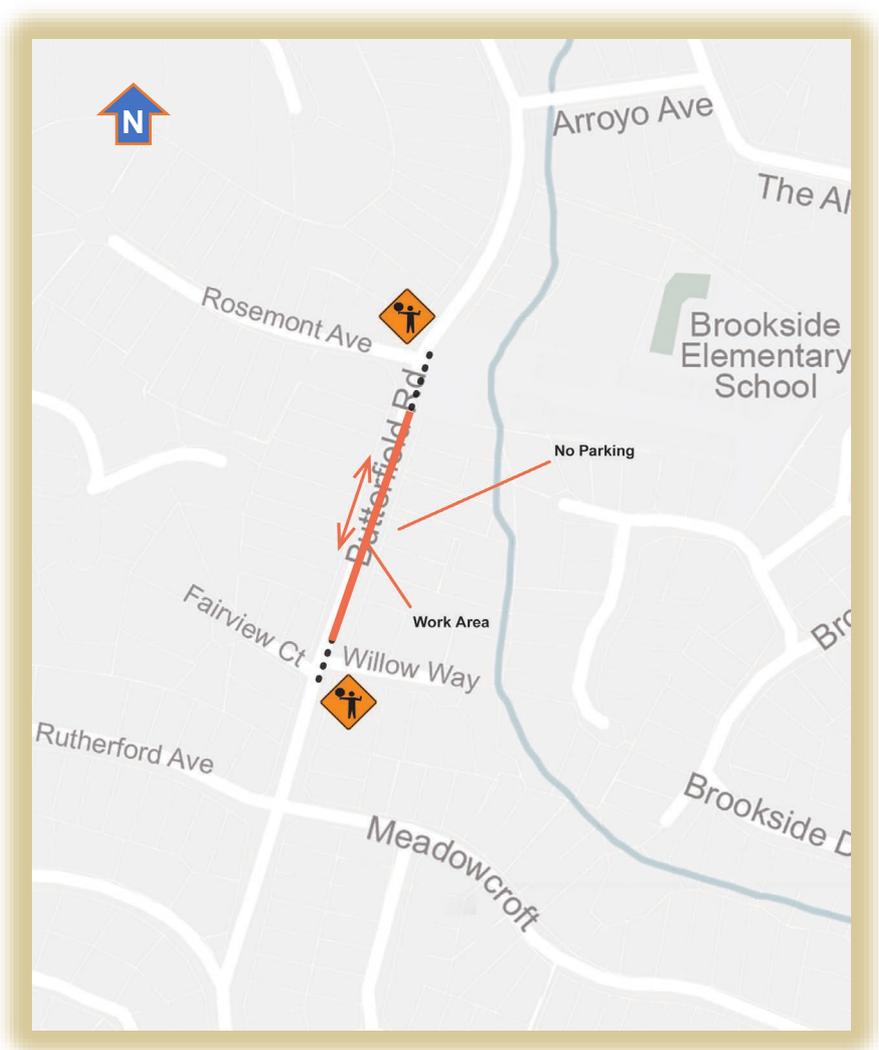




# Phase 1 – Summer 2019

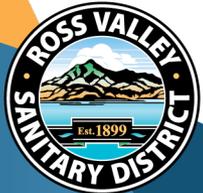
- Work Hours Mon. — Fri.  
7AM - 4 PM
- Approximate Duration:  
Nine Weeks
- Flagged, 2-way Traffic  
Control
- Parking Restrictions

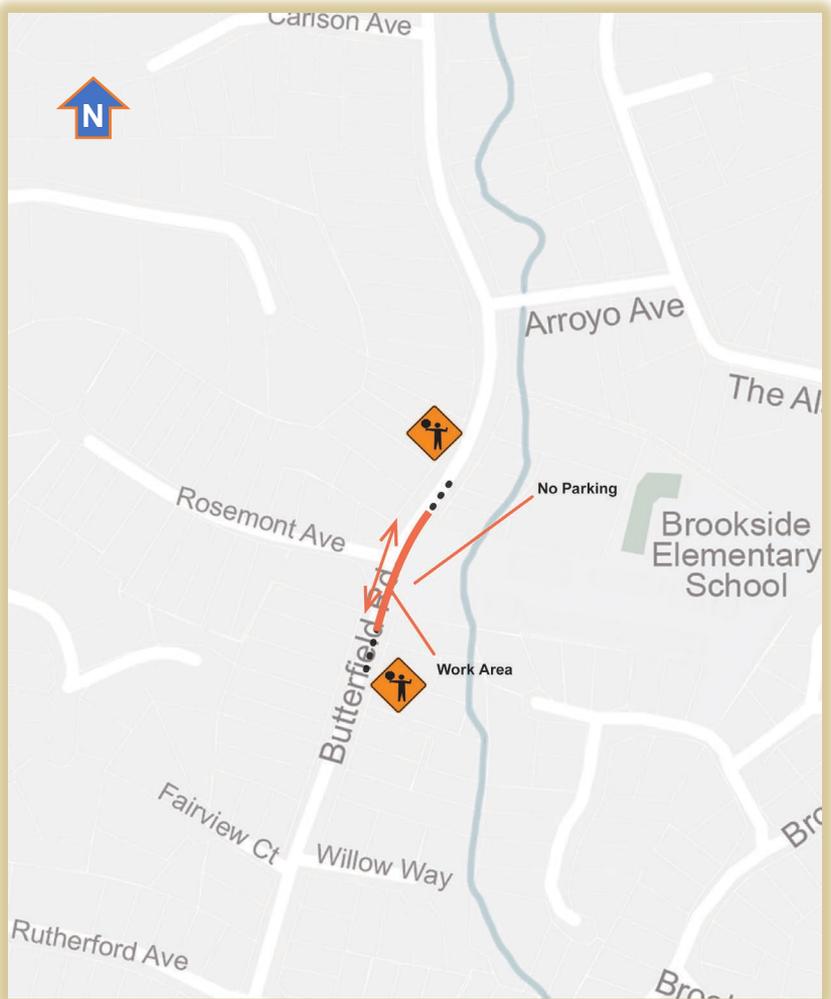




# Phase 1a – Summer 2019

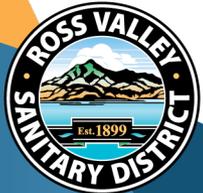
- Work Hours Mon. — Fri.  
7AM - 4 PM
- Approximate Duration:  
Three Weeks
- Flagged, 2-way Traffic  
Control
- Parking Restrictions

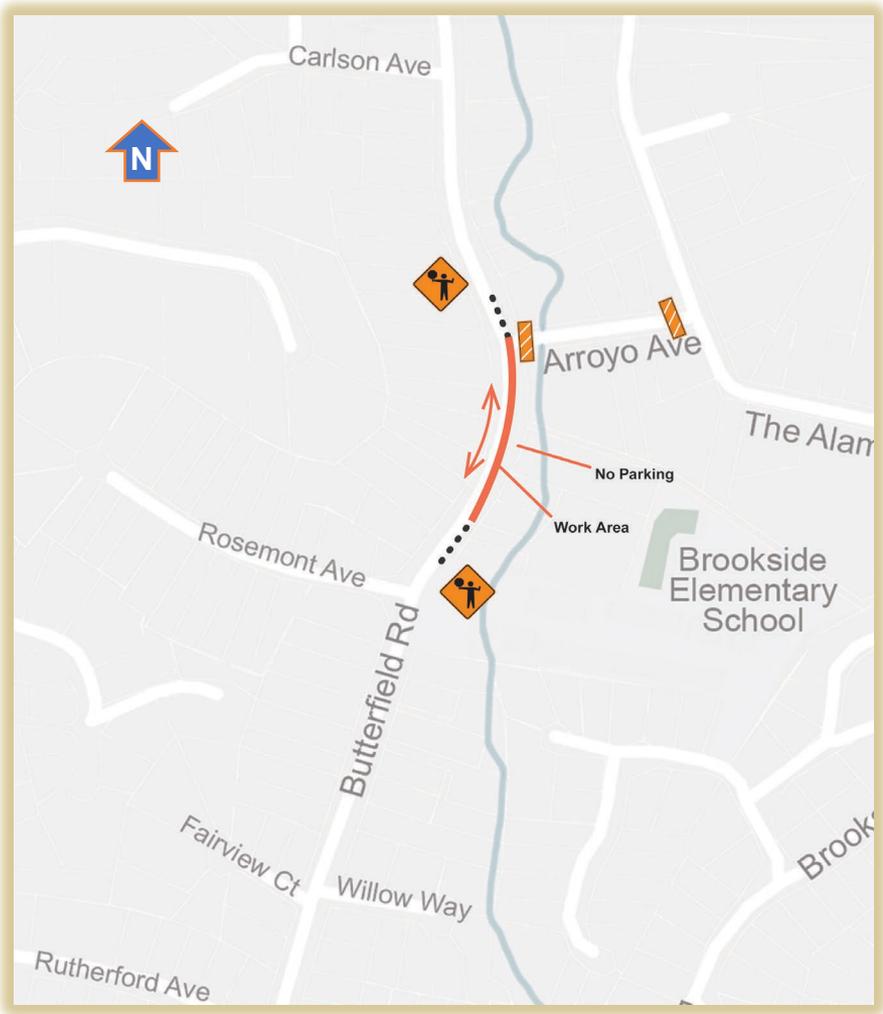




# Phase 1c – Summer 2019

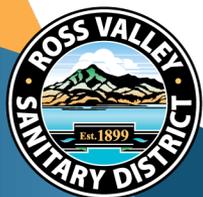
- Work Hours Mon. — Fri.  
7AM - 4 PM
- Approximate Duration:  
Three Weeks
- Flagged, 2-way Traffic  
Control
- Parking Restrictions

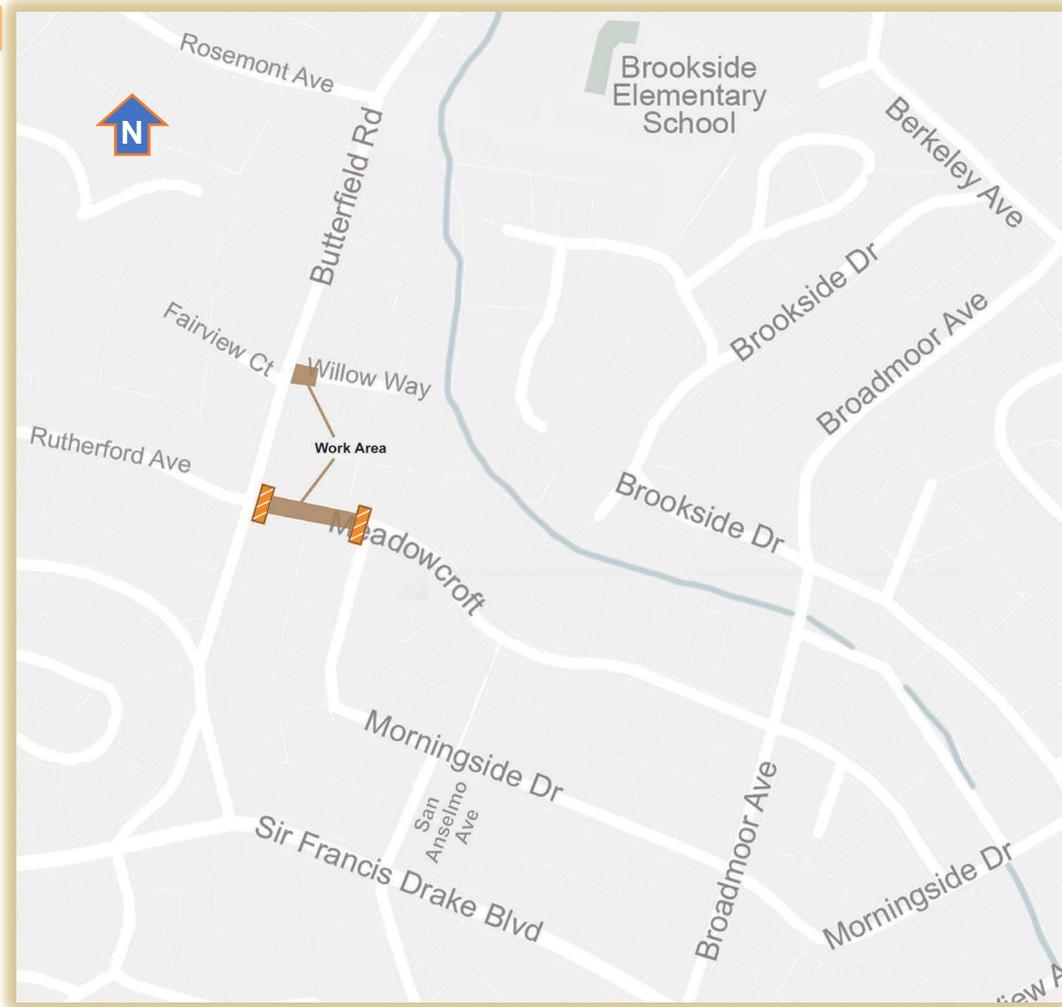




## Phase 1d – Summer 2019

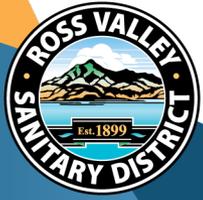
- Work Hours Mon. — Fri.  
7AM - 4 PM
- Approximate Duration:  
Three Weeks
- Flagged, 2-way Traffic  
Control
- Parking Restrictions





## Phase 2 – Fall 2019

- Work Hours: Mon. — Fri.  
7AM - 7 PM
- Approximate Duration:  
Nine Weeks
- Road Closed to Through  
Traffic
- Local Access Subject to Delay

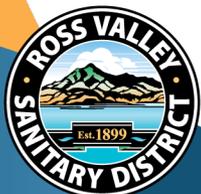


# Completing this work is vital to achieving our goals:

---

- Protect public health and the environment by reducing the risk of sewer overflows.
- Continue working with the community to replace the 80-90% of outdated sewer laterals that still remain.
- Help RVSD ensure that service is provided at the “lowest sustainable cost.”
- More information about lateral grant and loan programs is at [www.RVSD.org/LRGP](http://www.RVSD.org/LRGP).

An  average of **600** homeowners replaced their laterals in FY 16/17 & FY 17/18



# More Information:

Ads in the Marin IJ and PacSun News; Construction Notices mailed out; Project site street banners to inform the community; Online CIP Updates; GM Bulletins.



Protecting Public Health and the Environment

## PROJECT INFORMATION SHEET

### Gravity Sewer Improvements San Anselmo - Butterfield / Meadowcroft - Arroyo



As part of maintaining the 200 miles of collection sewer lines operated by Ross Valley Sanitary District (RVSD), a Capital Improvement Program (CIP) is underway with construction projects needed to protect public health and the environment by reducing the risk of sewer overflows. Work to replace outdated system infrastructure and enhance system reliability is taking place in your neighborhood.

The **San Anselmo - Butterfield/Meadowcroft - Arroyo Sewer Improvements** will replace old or outdated system infrastructure and enhance local wastewater system reliability and efficiency. Construction to improve system performance during wet weather will involve installation of 2,300 (LF) of sewer pipelines ranging in size from 8 to 18 inches in diameter and work on associated structures.

**PROJECT COORDINATION**  
RVSD, the Marin Municipal Water District (MMWD), the Town of San Anselmo (Town), and Marin County are coordinating to reduce construction impacts. A partnership between the Town, MMWD, and RVSD allowed narrow sections of The Alameda to be widened, providing a safer route and enhanced fire and police access. RVSD will complete improvements that are already under way on Sir Francis Drake Blvd., Broadmoor Ave., and Meadowcroft Dr. in spring 2019.

Coordinated project planning with the Town, local schools, and transit and fire districts will help to reduce traffic impacts from the upcoming Butterfield/Meadowcroft - Arroyo project. Sewer pipelines in Butterfield Rd., from Arroyo Ave. to Calata Ave. are planned for replacement in summer 2020.

**RVSD PROJECT CONSTRUCTION WILL INCLUDE**

- Sanitary sewer construction on public and private property.
- Sewer pipeline installation via open-cut removal and replacement, pilot tube guided bore construction, pipe lining methods, and pumping of sanitary sewer flow as-needed.
- Excavation, shoring and backfill, saw cutting and lateral replacement, pipe and manhole repairs and pavement restoration.

[www.RVSD.org](http://www.RVSD.org)




## Your dollars at work –

Protecting Public Health and the Environment

We have started construction on projects to replace outdated infrastructure and enhance local wastewater system reliability.

**These projects are needed** to protect public health and the environment by reducing the risk of sewer overflows.

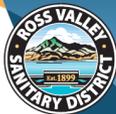
We will continue to work with the community to complete replacement of the 80-90% of outdated sewer laterals that still remain.



### MORE INFORMATION ABOUT CONSTRUCTION IN YOUR AREA

Visit: [www.RVSD.org/construction](http://www.RVSD.org/construction)  
 Email: [Construction@rvsd.org](mailto:Construction@rvsd.org)  
 Call: Construction Hotline (415) 413-7805

[www.RVSD.org](http://www.RVSD.org)



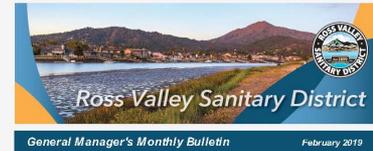
## Ross Valley Sanitary District Construction Project – Protecting Public Health and the Environment

### PS 15 Kentfield Pump Station Improvements Project

CONTRACTOR:  
Anderson Pacific  
andpac.com

IRE INFORMATION:  
 it: [www.RVSD.org/construction](http://www.RVSD.org/construction)  
 all: [Construction@rvsd.org](mailto:Construction@rvsd.org)  
 E: Construction Hotline  
 (415) 413-7805

[www.RVSD.org](http://www.RVSD.org)



General Manager's Monthly Bulletin February 2019

Ross Valley Sanitary District provides this monthly news bulletin of current notable activity and events to stay connected to the community we serve. We welcome your feedback on any information in the bulletin and if at any time you no longer prefer to receive this information, simply unsubscribe using the link below.

For more information, visit [www.RVSD.org](http://www.RVSD.org).

**Rainy Season Update** - RVSD weathered three large storms in February and experienced no storm-related sanitary sewer overflows (SSOs). Peak rainfall was at its highest February 25-27, when the San Anselmo rain gauge hit a one-day peak of 6.02 inches on Feb 26 and logged a total of 10 inches over two days - a new daily and storm peak for this year. During the February 13-14 storm, the San Anselmo rain gauge hit 5.2 inches in one day and 8.5 inches over two days. Both February storms were larger than the one where the SSO occurred at a capital project construction site during the 4.44-inch storm on January 6.

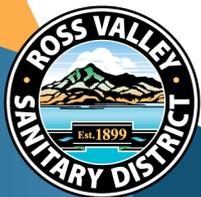
At Lakeside we avoided 200,000 gallon SSOs on February 13 and 26 through bypass-pump planning and rapid response based on our SMART manhole cover flow monitoring. Our SMART manhole covers measure the wastewater level remotely. When waters rise to levels of concern, we receive an alarm, mobilize and deploy a bypass pumping system if needed.



We did respond to several storm water overflows and localized flooding this month but are pleased to report they were from storm drains not sewers.

We have completed our investigation into the January 6 SSO that occurred at our 1517 Grady Sewer Improvement Project (Meadowcroft and Nikomin) on Broadmoor Avenue at Morningside Lane, and submitted the 45-day technical report to the Regional Water Quality Control Board on February 19. [Click here](#) to see the report.

The earlier 10-day SSO estimate of 245,700 gallons has been revised downward to 225,742 gallons. Of that amount, approximately 100,700 gallons was captured before it reached surface waters. An additional 79,800 gallons were prevented from overflowing by trucks pumping it out of the overflowing manhole and transporting it downstream back into the system.

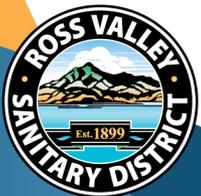


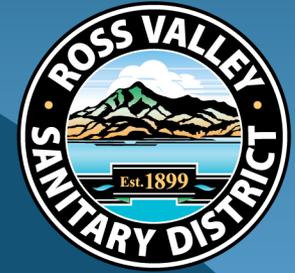
[www.RVSD.org](http://www.RVSD.org)

# More Information:

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- **Visit** [www.RVSD.org/construction](http://www.RVSD.org/construction) to find out if there will be any construction in your neighborhood.
- **Visit** [www.RVSD.org/LRGP](http://www.RVSD.org/LRGP) to learn more about our lateral replacement grant and loan programs.
- **Email** [Construction@rvsd.org](mailto:Construction@rvsd.org) for general inquiries or to request being added to the project email list.
- **Call RVSD at 415-259-2949.** RVSD office staff are available Monday - Friday from 7:30 a.m. to 4 p.m. We can assist you with emergency service 24 hours a day, seven days per week.





*Thank you!*

RVSD APPRECIATES your patience during construction as we fulfill our commitment to making strategic long-term infrastructure improvements.