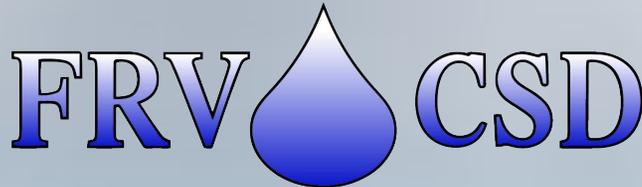




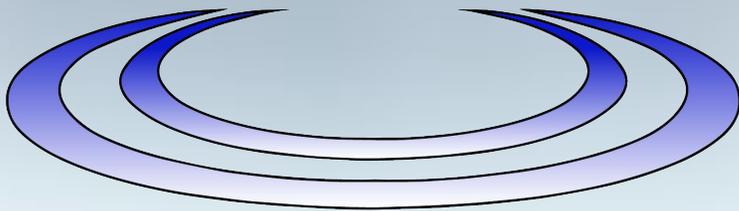
Fall River Valley CSD Special Community Meeting Pumped Sewer Properties

by

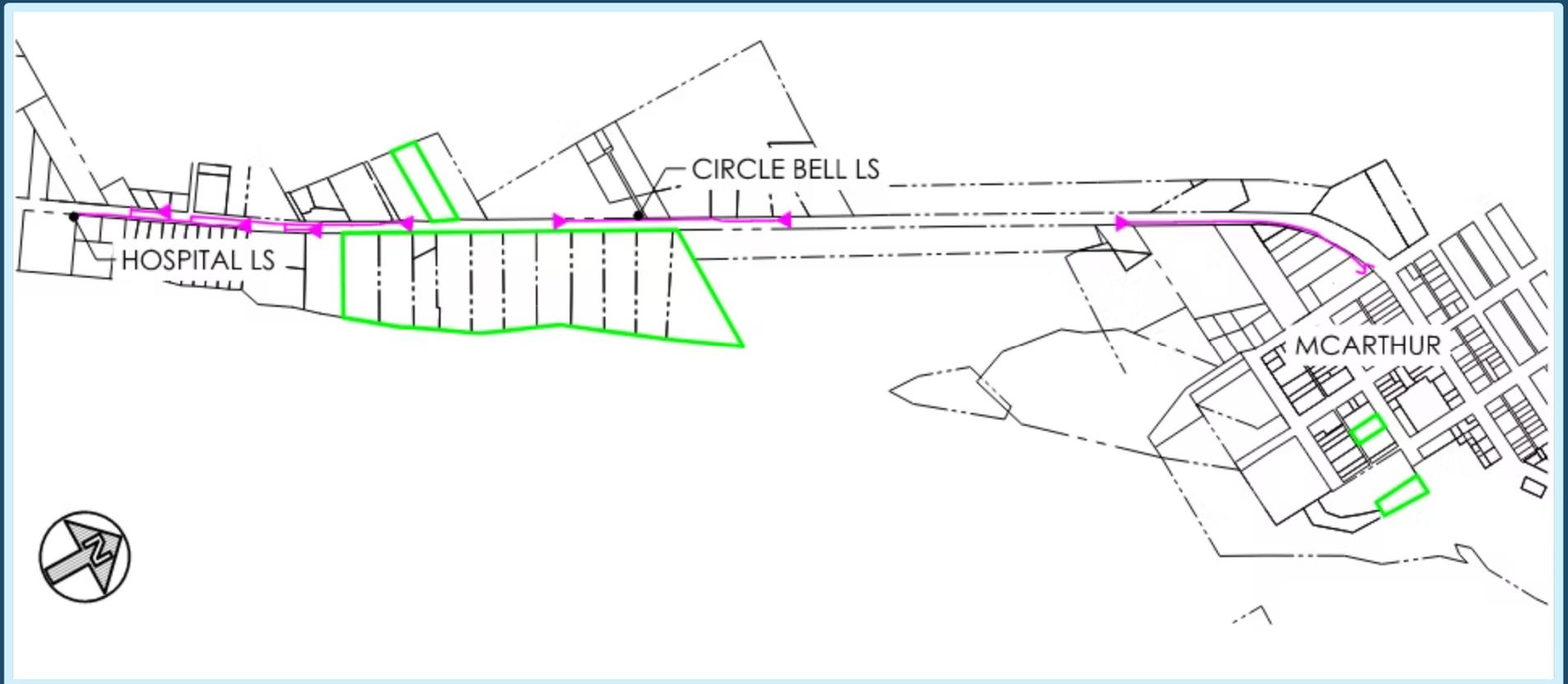
PACE Engineering, Inc.
March 27, 2026



FALL RIVER VALLEY COMMUNITY SERVICES DISTRICT



Why is Pumping Required?



Why is Pumping Required – continued...

Distance from Infrastructure

Distance from homes to Hwy 299 is (800'+/-):

4" pipe requires 16' of drop;

6" pipe requires 5' of drop.

Sewer Main Depth

Sewer mains in Hwy 299 cannot be deepened due to:

- Depth limitation of Hospital Lift Station*
- Cost of deep sewers in Caltrans ROW*

Existing Ground Profile in Hwy 299

A natural dip in the grade along Hwy 299 prevents continuous gravity collection north and south

Proposed Facilities

The project will pay for the following:

- Packaged Sewer Lift Station

- Septic Tank Abandonment

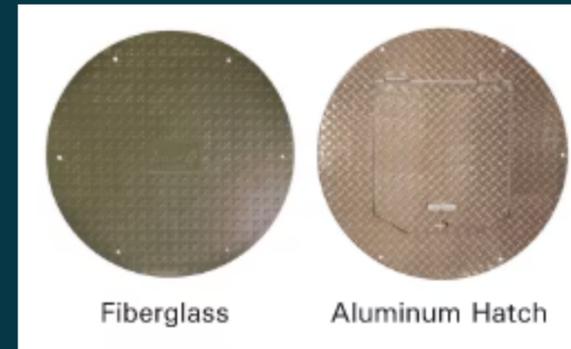
- 1-1/4" pressurized sewer lateral

- Permits, except for electrical

Homeowner is responsible for:

Permitting and cost to extend electrical power to the new lift station

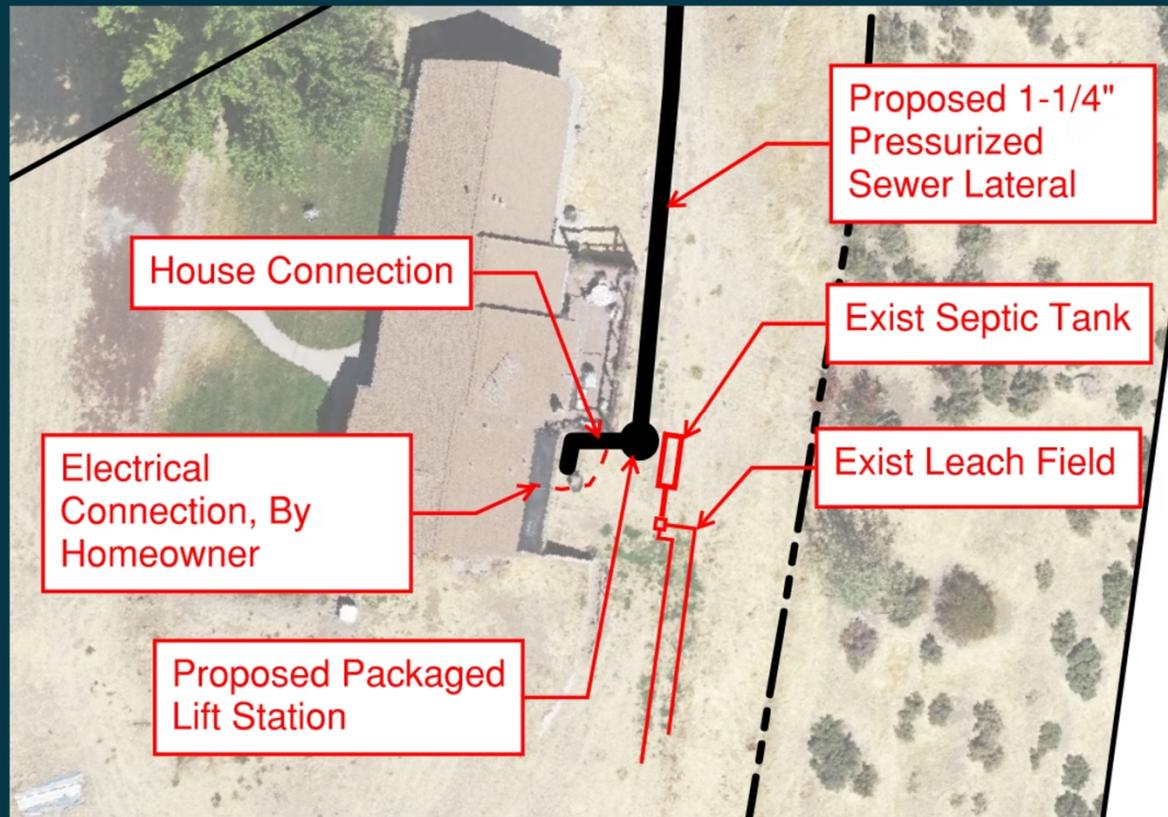
Proposed Facilities – continued...



Proposed Facilities – continued...



Typical Installation



Frequently-Asked Questions?

Frequently-Asked Questions

SYSTEM DESIGN AND REQUIREMENTS

1 Do I really need a pump, or can this be done with gravity?

Unfortunately, due to terrain and limitations within the existing and proposed collection system, your houses cannot successfully be served by gravity to the proposed sewer main.

2 What type of pump system is required?

The proposed facility is a packaged lift station consisting of a fiberglass wet well, rail-mounted grinder-style pump, piping, valves, and integral controls. The grinder pump macerates (grinds) the wastewater to allow conveyance through a smaller-diameter pipeline.

Frequently-Asked Questions

SYSTEM DESIGN AND REQUIREMENTS

3 What size pump and tank do I need for my home?

A 1-horsepower (HP) pump is recommended for all but one house. A 2 HP pump will be needed at 43749 U.S. Highway 299, due to an increased pumping head condition.

4 Where will the lift station be located on my property?

The lift station needs to be placed so that it can be reasonably connected to, 1) electrical power and 2) the existing sewer discharge pipe from the house. The placement is somewhat flexible, and our team is willing to coordinate with the property owner to accommodate the preferred location, within practical limitations.

Frequently-Asked Questions

SYSTEM DESIGN AND REQUIREMENTS

5 What are the local codes and permitting requirements?

The District will be obtaining building permits to install the new pressurized force main and lift station, as well as abandoning the septic tank on your property. Permits for electrical improvements to power the lift station are the property owner's responsibility.

6 Will the District specify the equipment I must use?

The specific equipment required to serve each home will be included in the project bid documents. If the contractor finds another product that can meet all the requirements at a similar or lower cost, we will consider using that product.

Frequently-Asked Questions

COST AND INSTALLATION

7 Who is responsible for installation—the property owner or the District?

The District's contractor will provide and install the packaged lift station and all piping, at no cost to the property owner. The property owner is responsible for connecting electrical power to the lift station control panel. It is recommended that a professional electrician be retained to assess the home's current power usage and determine specific improvements required for connection.

8 Are there connection fees or impact fees?

If you agree to connect to the municipal sewer as part of this project, there will be no connection or development impact fees.

Frequently-Asked Questions

COST AND INSTALLATION

9 Will I need electrical upgrades to support the lift station?

This will be dependent on, 1) the size of your electrical service and 2) current power usage of your home. All but one property will require a 115-volt, 20-amp, 1-pole dedicated breaker. One home will require a 230-volt, 20 amp, 2-pole dedicated breaker.

10 How much will trenching and conduit/conductors cost?

Costs will depend on whether the property owner performs the work or hires a contractor. Costs will include the following:

- Electric Permit: \$120 to \$200
- Conduit/Wiring: \$5 to \$7 per linear foot
- 20-amp Breaker (1-pole or 2-pole): \$15 to \$30
- Labor (if installed by contractor): \$100 to \$200 per hour

Frequently-Asked Questions

COST AND INSTALLATION

11 Will I pay the same monthly bill as someone who does not have to pump?

Yes. The rationale is you are contributing the same volume and strength of waste into the wastewater system as someone who does not have to pump.

Frequently-Asked Questions

POWER AND RELIABILITY

12 What happens if the power goes out? Do I need a backup generator or battery system?

There is no backup power provision that comes with this system. For the pump to run during a power outage, a backup generator or battery storage system is required. It will be the responsibility of the property owner to ensure that any backup generator used will meet the power needs of the pump. If the system loses power or quits operating due to malfunction, there should be at least 100 gallons of storage capacity in the basin, which is equivalent to about 10 hours of normal wastewater usage.

Frequently-Asked Questions

POWER AND RELIABILITY

13 How often does the pump run, and how loud is it?

For homes with tight (not leaky) plumbing fixtures, the lift station will likely not run for more than 20 to 30 minutes combined, over an entire day, at typical wastewater contributions. The pump is located in a buried fiberglass basin, so any sound transmitted above ground should be minimal. Envision a submerged garbage disposal running inside a below-ground vault.

14 What alarms or alerts are included if the system fails?

The system includes a control panel that has an audible alarm and visible red-light alarm to indicate a failure. There are also indicators inside the panel to let the user know what specifically has failed in the system. Additionally, if desired by the homeowner, there is an option to add WI-FI output from the control panel to send messages to an app on your phone as an additional alert. The WI-FI signal at your home would need to be able to accommodate this feature, which we are not able to test before installation. Unless there is majority interest in this option, we will not be pursuing this capability.

Frequently-Asked Questions

MAINTENANCE AND RESPONSIBILITY

15 Does the property owner or the District own and maintain the lift station?

The property owner is responsible for maintenance of the lift station in its entirety and the pressurized sewer line from the house to the property line after installation is complete.

16 How often does the lift station need servicing?

While regular servicing is not necessarily expected (such as an oil change on a car), it is recommended to visually inspect the lift station once every 6 to 12 months. The pump is installed on rails and can be easily removed from the basin if needed. A garden hose or power washer can also be used to spray down the lift station to loosen debris/buildup and aid in visual inspection.

Frequently-Asked Questions

MAINTENANCE AND RESPONSIBILITY

17 What is the expected lifespan of the lift station?

The fiberglass basin, piping, valves and appurtenances should have a useful service life of 30 or more years. The grinder pump and electrical controls have an expected service life of about ten years or more, if not abused.

18 What is the estimated cost to replace a grinder pump?

The current retail cost for a replacement grinder pump is about \$1,500 - \$2,000, depending on source.

Frequently-Asked Questions

MAINTENANCE AND RESPONSIBILITY

19 What are common failure issues?

Clogs or debris buildup in the pump are the most common issues. Flushable wipes, feminine hygiene products, grease, and other fibrous materials should be avoided.

20 How much does maintenance typically cost per year?

Other than periodic property owner inspections and prevention of flushing unsuitable materials into the sewer, annual maintenance costs should be minimal.

Frequently-Asked Questions

MAINTENANCE AND RESPONSIBILITY

21 Is there a warranty for this system?

Yes, there is a 12-month warranty for equipment and installation defects from the time the system is put into beneficial use.

Afterward, the property owner is responsible for maintaining and repairing the system.

Frequently-Asked Questions

USAGE RESTRICTIONS

- 22** What can and cannot be flushed into the system (especially with a grinder pump)?

The only items that should be discharged into the system are human waste, toilet paper, and wash water from cleaning fixtures, i.e. showers, baths, sinks, dishwashers, etc.

- 23** Will the system handle garbage disposals, wipes, grease, etc.?

Even though you will have a sewage grinder pump, you should still adhere to general guidelines regarding what can and what should not be placed down the garbage disposal. Fats, oils, grease, eggshells, coffee grounds, bones, starchy foods, fibrous foods, or garbage should not be placed down the disposal. These contents can lead to pump blockages.

Frequently-Asked Questions

USAGE RESTRICTIONS

24 Are there penalties for misuse?

There are no monetary penalties; however, the property owner is responsible for the impacts caused by misuse of the system.

Frequently-Asked Questions

RISKS AND EMERGENCIES

25 What happens if the pump fails or the tank fills up?

Pump failure will lead to the basin filling with wastewater. The failure will need to be corrected as soon as possible by the property owner. If the basin continues to fill before a repair can be implemented, the waste in the basin will need to be removed safely to avoid back-up into plumbing fixtures in the home. The services of a sewage pump truck (like what would be used for pumping a septic tank) will need to be enlisted.

26 Can sewage back up into the house?

Assuming the pump fails and/or the power goes out:

There will be a check valve to keep any sewage that has entered the tank from exiting toward the house. However, if the tank is completely full and wastewater is still being directed to the tank, the pipe itself will continue to fill and eventually back up into the house—usually the lowest plumbing fixture, which is often a bathtub.

Frequently-Asked Questions

RISKS AND EMERGENCIES

27 Is there an overflow or emergency storage capacity?

No. Raw wastewater cannot be discharged onto the ground.

28 Who do I call in an emergency?

Any local plumber should be qualified to help during an emergency, or for repair work.

Frequently-Asked Questions

PROPERTY AND RESALE IMPACT

29 Will having a lift station affect property value?

It has been shown that properties that are connected to a municipal sewer system typically have higher resale value than those served by an on-site septic system.

30 Are there easements or access requirements for maintenance?

There are no easements since maintenance and ownership of the lift station is the responsibility of the property owner. The District is only responsible for the line from the sewer main to your property line.

Frequently-Asked Questions

LEGAL/UTILITY COORDINATION

31 What agreements do I need to sign with the District?

A Sewer Service/Right-of-Entry agreement has been prepared by the District that outlines the terms and conditions for accepting sewer service and allowing a contractor to perform the work on your property. You will need to sign this agreement prior to 1) being accepted into the project and 2) any work taking place on your property. If no agreement is signed by May 1, 2026, your property will be deemed to not be included in the project.

32 Are there inspection requirements before connection?

The District's engineering consultant and/or District staff will provide construction observation services throughout construction and will deem the installation ready for hook up to the system.

Frequently-Asked Questions

LONG-TERM CONSIDERATIONS

33 How energy-efficient is the pump?

Grinder pumps are less efficient compared to a liquid only water pump because some of the energy being provided to the pump is used for cutting/grinding of the waste.

35 Will future sewer upgrades eliminate the need for pumping?

In this case, it is not likely because the depth and associated cost to deepen infrastructure to facilitate gravity service is cost prohibitive.

34 Are there ongoing utility costs for running it?

Yes, the property owner is responsible for electricity costs for running this system. Based on the needs of each home and an energy cost of \$0.50 per kWh, we estimate the electrical power cost will be less than \$5 per month for a typical household discharge of about 250 gallons per day.