

FREQUENTLY ASKED QUESTIONS about on-site wastewater (septic) systems

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PART ONE: New Construction and Adding Bedrooms

I want to build a new home served by a septic system. What do I need to do?

You need to obtain an OWTS Construction Permit from San Juan Basin Public Health (SJBPH). A construction permit currently costs \$1023 including the cost of design review and the cost of all on-site inspections. To obtain a permit:

1. Apply for a permit using the OWTS Permit Application form available from any SJBPH office location or sjbpublichealth.org/septic. The property owner must sign the form. Applications may be submitted in person or online. See the Application Instructions for more information.
2. Save your copy of your permit application and keep it for when you are ready to submit more information.
3. Have a Site and Soil Evaluation conducted by a Registered Soil Technician. This evaluation determines the characteristics of the soil on your property and what type and size of system is suitable. A list of Registered Soil Technicians is available at sjbpublichealth.org/septic or at any SJBPH office location.
4. Determine if an engineer design is required or optional. An engineered design is required in clay soils, rocky soils, on steep slopes, and over high groundwater or high bedrock. See the list of Registered Soil Technicians for more information.
5. If an engineer design is required, contact any professional engineer licensed in Colorado to submit a design. Many engineers are also Registered Soil Technicians. Otherwise, anyone may submit a design- you, your contractor, anyone. SJBPH does not design systems.
6. Submit the Site and Soil Evaluation and design to SJBPH at eh@sjbpublichealth.org. Reference your permit application number (2019-XXX) in your email.
7. SJBPH will then review the information provided to see if your proposed design meets the requirements of applicable laws and regulations. Design review takes about two weeks in the busy summer construction season.
8. **DO NOT BEGIN CONSTRUCTION** of the septic system until SJBPH issues you a signed permit authorizing construction. Once you receive the permit, a licensed System Contractor may begin installing the system immediately.

I would like to install my own septic system. How can I do that?

You need to obtain an annual System Contractor License from SJBPH. If you have never been licensed before and are not licensed elsewhere in Colorado, take the quarterly System Contractor class offered

by SJBPH. Contact the environmental team at 970-335-2060 or eh@sjbpublichealth.org to register for the class. The class currently costs \$120.

Do I need to pay an engineer to design my septic system?

Possibly. Engineered designs are required in rocky soils (greater than 35% rock), clay soils (Types 3A, 4, 4A and 5), on steep slopes (greater than 30%), where groundwater or bedrock are within four feet of the surface, or where you need reduced setbacks to surface water or groundwater. A Site and Soil Evaluation by a Registered Soil Technician is the only way to determine if these conditions are present. If they are not, then anyone may design your system, including you.

Can I get a percolation test to determine suitability of my soil?

Percolation tests were the standard metric for OWTS suitability for many years, but they do not reveal what happens to wastewater below the surface. Percolation tests are accepted by SJBPH only as supporting information in a Site and Soil Evaluation.

Can I submit a soil analysis for a foundation for suitability of my soil?

Most foundation soil analyses do not meet the standards for a Site and Soil Evaluation for a septic system, and, even if they did, they probably wouldn't be in the right place unless you plan to build your septic system *very* close to your house.

How much does a new septic system cost?

Many variables influence the cost of a new system. The most important are the number of bedrooms it serves and the type of soil present on the property. With more bedrooms and/or poorer soil, the required size of the system increases, as does the cost. Contact a licensed System Contractor for cost estimates.

Can I install a holding tank instead of a complete septic system?

Holding tanks, also known as vaults, are allowed only where the property cannot accommodate a complete OWTS with a soil treatment area ("leach field"). SJBPH permits a small number of vaults each year for this reason. Vaults must meet a certain size requirement and have an alarm that indicates it is time to pump out the vault.

I want to add bedrooms to my existing home. Do I need to expand the septic system?

In most cases, yes. Systems are sized based on the number of bedrooms and designed for maximum reasonable use, so even if a bedroom is not going to be frequently used, the system needs to have the capacity to handle the additional people that could stay in the new bedroom. These cases are handled through an OWTS Alteration Permit from SJBPH. See the Application Instructions for more information.

In a few cases, expanding the system is not necessary. Generally, this is true only when the original system was overbuilt in the first place. Many lagoon-type systems are suitable for one extra bedroom *if* the lagoon is functioning well and does not present a risk to public health.

If the system is already suitable for the extra bedroom, you should request a Permit Amendment (\$120, the request form is available on our website or at either of our office locations). An evaluation of the

system by a professional engineer is required. For lagoon-type systems, a site visit from SJBPH is also required (an additional \$120 for a total of \$240).

I want to add bathrooms to my existing home. Do I need to expand the septic system?

No. Systems are sized based on the number of bedrooms (a proxy for the maximum number of people expected to regularly use the system). The number of bathrooms does not matter.

Can I reuse an existing unused system for a newly built home?

Possibly. If the existing system has a valid permit for the correct number of bedrooms, you may put it back in use if it is still functioning properly. SJBPH will sign building permit applications and mobile home applications for this scenario upon completing an inspection of the existing system (\$240, find an Inspection Request Form on our website or at any SJBPH office location). If the system fails inspection, a minor repair permit (\$373) or alteration permit (\$973) may be required.

Do I need to build a new septic system just to accommodate an RV or trailer on my property?

Each county requires sewage connection on an RV after a different length of time. As of September 2018, these are:

- San Juan County: 14 days (longer with a renewable permit)
- La Plata County: 90 days
- Archuleta County: 120 days

If you plan to stay in your RV or trailer permanently, or for longer than the county requirement, you must obtain a permit and build a septic system. Systems for RVs and trailers are generally smaller than conventional systems for homes, but are otherwise similar.

PART TWO: Buying and Selling Property

I'm interested in buying a piece of vacant land. How do I know if I can build a septic system there?

The ability to accommodate a septic system on a property is the product of multiple factors. The most important are the number of bedrooms you want to build, the soil type, the proposed water supply, and the size of the property. While there is no minimum acreage requirement in the OWTS Regulations, very small properties (less than one acre) may be difficult to accommodate a septic system while meeting required setbacks, especially if there is also going to be a well or cistern on the property.

The setbacks to water lines are less than the setbacks to wells and cisterns, so properties on central water supply may be easier to accommodate a septic system.

Furthermore, it is very rare that an OWTS permit application is completely denied for a piece of property. If soil is unsuitable, unconventional engineered septic systems may be an option. If setbacks are a problem, advanced waste treatment can be designed by an engineer to reduce the required setbacks. If all other options are unsuitable, SJBPH can permit a vault system (essentially a holding tank that gets periodically pumped out).

I'm interested in buying or selling a house served by a septic system. What do I need to do?

Beginning January 1, 2019, most OWTS must be inspected prior to sale. The point of this requirement is twofold:

1. To quickly identify and repair failing or otherwise unsafe systems before they can contaminate drinking water supplies
2. To disclose information about the system to buyers and sellers to reduce unexpected future repairs or other surprises

Inspections for this purpose must be completed by an inspector certified by the National Association of Wastewater Technicians (NAWT). Inspection reports are valid for twelve months. During this time, the report should be submitted to SJBPH for "Transfer of Title Acceptance." SJBPH's acceptance is valid for a further twelve months. In other words, up to 2 years might pass between inspection and sale.

Prior to scheduling an inspection of your OWTS, you should obtain a copy of your existing OWTS permit to verify that the system was properly permitted and you do not need to make any improvements separate from repairing malfunctions identified during inspection.

How do I get an inspection done of my septic system?

Transfer of title inspections will be done by certified third-party inspectors. Find inspectors at nawt.org/search. SJBPH will also provide an unofficial list of local inspectors. Around the same time, you should have the septic tank serviced by a licensed System Cleaner. SJBPH maintains a list of local System Cleaners at sjbpublichealth.org/septic.

How do I get the transfer accepted by SJBPH?

You will submit an application for acceptance to SJBPH along with an inspection report from the last twelve months and a septic tank servicing report from the last twelve months. SJBPH will review the inspection report, servicing report, and all existing permits for the OWTS. If everything is performing acceptably and matches the permit(s) for the property, SJBPH will issue an Acceptance Document and the transfer may then be completed. Acceptance Documents will be valid for twelve months. SJBPH's fee for acceptance will be \$60, and SJBPH plans to issue Acceptance Documents within two business days of application if all items are satisfactory.

What happens if the system fails inspection or doesn't match its permit?

The property owner must apply for a new permit to fix any problems or expand the system as necessary. The smallest repairs- adding a fence, replacing a tank lid, etc., do not require a new permit. SJBPH will inspect the repairs and a new Transfer of Title inspection does not need to be performed.

What about winter sales and inspections?

If the inspection cannot be performed or repairs cannot be completed due to snow cover or frozen ground, SJBPH can issue a Conditional Acceptance Document if the buyer agrees in writing to complete the necessary inspections and/or repairs within a reasonable timeframe. SJBPH recommends getting inspections done in advance during fairer weather to avoid this possibility.

Are there any exceptions to the Transfer of Title Inspections requirement?

Certain properties are exempt from the Transfer of Title regulations. These are:

1. If a final permit exists for the OWTS that was signed by SJBPH within four years of closing date
2. Non-arms-length transactions, such as adding children, spouses, etc. to the title
3. Creating or ending joint ownership as long as one original owner remains on the title
4. Creating or disbanding trusts and LLCs in the name of the owner
5. Foreclosure (NOTE: sales of bank-owned properties are NOT exempt)
6. OWTS already undergoing expansion or repairs under an active permit, IF the requirement to complete the permitted improvements is disclosed to the buyer

What if I need to sell my property on short notice and cannot complete the necessary repairs?

SJBPH will issue a Conditional Acceptance Document if the buyer agrees in writing to obtain all necessary permits and complete all necessary repairs or improvements within ninety days of closing (or occupancy, at SJBPH discretion).

How much will inspections cost?

Inspectors are independent businesses and individuals. The market will set the price for inspection. A large component of inspection cost is mileage and travel time; SJBPH recommends contacting multiple inspectors for a price quote and working with those based close to the property needing inspection.

PART THREE: Complaints and Enforcement

How can I make a complaint about a neighbor's septic system?

If you believe that a neighbor's septic system is failing or otherwise endangering public health or water quality, SJBPH wants to hear about it. Please call 970-335-2060 to make a detailed complaint, including the address of the property in question and the nature of the complaint. SJBPH does not accept anonymous complaints, but we do not inform the responsible party of the complainant's identity except as required by law.

Is my neighbor required to have a septic system?

This is a more complicated question than it might seem. Three basic rules apply:

1. It is illegal to construct, maintain or occupy a dwelling with no facilities to manage sewage (either a septic system, a connection to a wastewater treatment plant, or, rarely, an alternative management system).
2. Recreational vehicles, travel trailers and tents are allowed for limited occupancy of a property. The length of time these are allowed without having to be connected to a septic system differ by county. As of September 2018, these time limits are:
 - a. San Juan County: 14 days (longer with a renewable permit)
 - b. La Plata County: 90 days
 - c. Archuleta County: 120 days
3. Sewage or greywater can never be discharged onto the surface of the ground, into ditches or creeks, or into unpermitted holding tanks

If you believe a neighbor or other property has no septic system and is in a permanent dwelling, please call SJBPH at 970-335-2060. If you believe a neighbor or other property has no septic system and is living

in a recreational vehicle or trailer for longer than the time listed above, AND if you have not witnessed dumping of sewage or greywater, call your county Code Enforcement Officer. If you witness dumping of sewage or greywater in any circumstance, report it to SJBPH.

What actions does SJBPH take on complaints?

SJBPH investigates all complaints that may be violations of wastewater regulations and/or present a risk to public health. SJBPH prioritizes complaints that present higher risks to public health, including sewage dumping and failing systems. SJBPH investigation generally includes multiple site visits and contact with relevant property owners. SJBPH always attempts to gain voluntary compliance from property owners, but, if necessary, SJBPH will begin formal enforcement proceedings that may result in civil court action or criminal prosecution. SJBPH does not have the power to arrest individuals, condemn property, or evict residents.

If SJBPH does not have jurisdiction over a complaint, it will refer the complaint to the appropriate agency. In most cases, you will need to speak directly to the referred agency.

What about complaints other than septic systems?

SJBPH is a local public health agency with specific powers under state law to protect public health in various ways. Many complaints about private property are not considered public health hazards under Colorado law. These include:

1. Trash and motor vehicle storage on private property
2. Excessive noise or light pollution
3. Domestic animals on private property
4. Excessive occupancy of private residences IF the septic system continues to perform well and is properly permitted (including vacation rentals not allowed by zoning or land use codes)

All of these items are more likely to be violations of county land use codes rather than the wastewater or public health regulations. Contact your county Code Enforcement Officer.

PART FOUR: Operation and Maintenance

How do I keep my septic system functioning well?

Contrary to popular belief, septic systems cannot be left alone and continue to treat wastewater indefinitely. Fortunately, the maintenance required is common-sense and easy to do on a regular schedule. The most important items are:

1. Have the septic tank(s) pumped by a licensed System Cleaner, about every four years. At pumping, a Cleaner may advise you that pumping more often is necessary, or that pumping less often is appropriate (generally for systems used seasonally). You can find a list of currently licensed System Cleaners at sjbpublichealth.org/septic.
2. If you have an effluent filter (most septic tanks installed since about 2003, and all installed since 2011), clean the effluent filter once a year by washing it with a hose. Clean it such that the solids in the filter fall back into the tank.

3. Once a year, after snowmelt is complete, check to see that your soil treatment area is drying out and does not have excess moisture compared to the surrounding areas. Certain types of shallow soil treatment areas are designed to have more moisture below the surface, but there should *never* be effluent pooling on the ground surface.
4. If you have inspection ports (vertical pipes coming out of the ground in the soil treatment area), check their water level every summer. The water level should be even and at least 6 inches
5. If you have a lagoon, keep it in maximum sunlight by removing vegetation about once a year. Check on the integrity of the berm and the fence regularly.

How do I know if my septic system is malfunctioning?

There are two tell-tale signs of serious system malfunction: water pooling on or running across the surface and waste backing up into the house. Either of these situations is a malfunction requiring immediate system evaluation by a professional, and most likely a repair or alteration permit.

Other more minor malfunctions (high water levels that do not present water at the surface, leaking septic tanks, clogging leach fields) may not be noticeable without regular inspection (see the previous question).

What should I do if I have a malfunction?

Contact SJBPH to obtain a copy of your existing permit, and then call a wastewater industry professional. SJBPH recommends contacting a certified inspector or a professional engineer as the first step of evaluating a malfunctioning system, but in the case of most major malfunctions, any licensed System Contractor can identify the needed repairs. Lists of certified inspectors and licensed System Contractors are available at sjbpublichealth.org/septic.