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September 9, 2019

Paul Hutchins
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Onsite Wastewater Treatment System (OWTS) Inspection
6762 Hwy 82
Garfield County, Colorado

Paul,

As requested, CBO Inc. performed an Onsite Wastewater Treatment System (OWTS) inspection at 6762 Hwy 82, Glenwood Springs, Colorado on August 22, 2019. The legal description of the 42,250 square foot property is as follows:

Section: 1 Township: 7 Range: 89 TR IN LOT 8 42250 SQUARE FEET
Parcel ID: 2395-011-00-011

No records on the existing OWTS were available from Garfield County Community Development Department. The property owner did provide a sketch (enclosed) and information from recent pumping and access to the seepage pits. The subject OWTS consists of two, two-compartment concrete septic tanks connected in series. The size of these septic tanks were not verified, but we speculate they are between 1000 and 1250-gallons each. Effluent gravity flows to a distribution box and then to three seepage pits.

The system serves four buildings, each with 2 bedrooms each, for a total of 8 bedrooms. Although the OWTS has been upgraded from the original construction of the residences, according to the Garfield County Assessor information, the residences were constructed in 1965. We recommend utilizing a camera to verify material and condition of sewer lines from the residences to the septic tanks. These lines could be cast iron which are prone to deterioration and clogging.

The septic tanks are located east of the most southeastern residence. All septic tank lids were accessible from grade. Liquid levels in both septic tanks appeared normal at the time of our inspection. Randy Hughes, representative of the property owner, reported the tanks were last pumped December 7, 2018 by Kelly Gessele.

We attempted to take photographs inside the tanks; however, we were unable to verify sanitary tees on either septic tank and the concrete above the liquid levels appeared to be in poor condition.

There was no access to either the distribution box or the seepage pits at the time of our inspection. Mr. Hughes reported that in December 2018 they discovered the seepage pits had various levels of saturation. The eastern most seepage pit was dry, middle seepage pit was $\frac{1}{2}$ full of effluent, and western most seepage pit was $\frac{1}{4}$ full. He reported the distribution box was excavated and either replaced or leveled to assure equal distribution to all three seepage pits. He reported that the distribution box is fiberglass.

While the system appeared to be functioning with no signs of surface saturation or failure, the age and condition of the components for long-term use with high occupancy should be considered. There are also very few options for replacement of the soil treatment area(s) if failure were to occur.

We recommend the following:

- Explore sewer lines from residences to septic tank. If found to be in poor condition or cast iron, consider replacement.
- Pump septic tanks frequently (annually).
- Gain access to distribution box and make accessible from grade for future inspection and maintenance.
- Gain access to all three seepage pits. Install cast iron manhole lids that are accessible from grade for future inspection and maintenance.
- Consider replacement of septic tanks with two new, minimum 1250-gallon septic tanks with an effluent filter on the outlet tee of the second tank in the series. This would better protect the seepage pits.

This evaluation is not a guarantee of future system performance.

Disclaimer: *This inspection is intended only as an evaluation of the present condition of the OWTS based upon what was observed and the Licensed Inspector's expertise in onsite wastewater technology. The Inspector has not been retained to warrant or guarantee the proper functioning of the system for any period of time in the future. Because of numerous factors which may affect the operation of an OWTS, as well as the inability of the Inspector to supervise or monitor the use or maintenance of this OWTS, this report shall not be construed as a warranty by the Inspector that the system will function properly for any particular prospective buyer, and the Inspector disclaims any warranty, either expressed or implied, arising from the inspection of the OWTS or this report. The evaluation does not ascertain the impact the system is having on groundwater.*

Please call with questions.

Sincerely,

Carla Ostberg

Carla Ostberg, MPH, REHS
NAWT Certified Inspector
Certification # 11044ITC Exp. April 2020



View of septic tank lids





Looking from driveway toward septic tanks



View of inside septic tanks – note deterioration of concrete





Inside tank



Poor condition of concrete





View of parking area where seepage pits are located. No access at time of inspection.

Photographs provided by property owner from maintenance conducted previously



Seepage pits

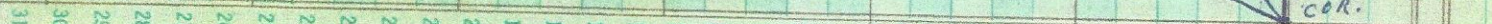


Effluent in seepage pits



Effluent in seepage pits is a sign of future failure

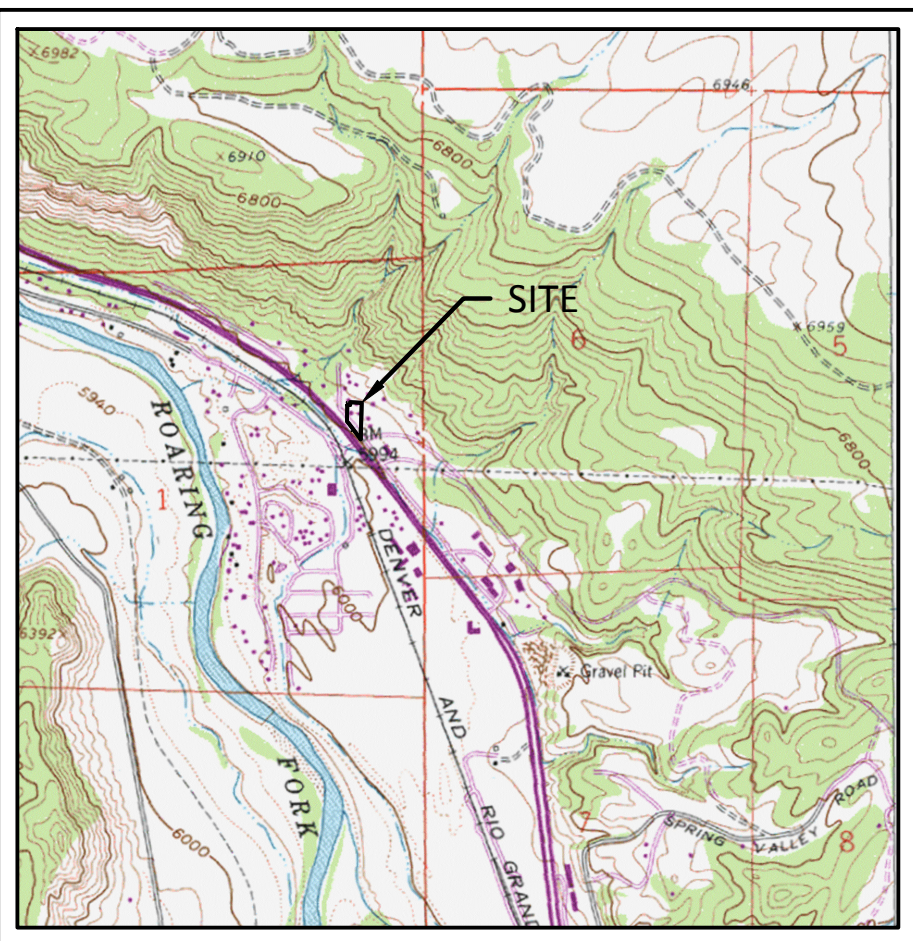




IMPROVEMENT SURVEY PLAT OF:
**6762 HIGHWAY 82,
GLENWOOD SPRINGS**

A PARCEL OF LAND SITUATED IN LOT 8 OF SECTION 1,
TOWNSHIP 7 SOUTH, RANGE 89 WEST OF THE 6th P.M.
COUNTY OF GARFIELD, STATE OF COLORADO

SHEET 1 OF 1



VICINITY MAP
SCALE: 1" = 2000'

TITLE PROPERTY DESCRIPTION

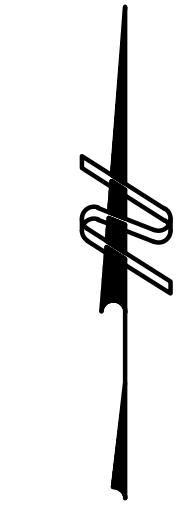
A PARCEL OF LAND SITUATED IN LOT 8 OF SECTION 1, TOWNSHIP 7 SOUTH, RANGE 89 WEST OF THE SIXTH PRINCIPAL MERIDIAN, LYING NORTHERLY OF THE NORTHEASTERLY RIGHT-OF-WAY LINE OF STATE HIGHWAY NO. 82, SAID PARCEL OF LAND IS DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT WHENCE THE NORTHEAST CORNER OF LOT 9 OF SAID SECTION 1 BEARS: 12°14'44" W. 643.60 FEET;
THENCE S. 87°06'00" E. 30.00 FEET;
THENCE N. 01°14'00" E. 30.14 FEET;
THENCE S. 87°06'00" E. 120.06 FEET;
THENCE S. 01°14'00" W. 378.24 FEET TO A POINT ON THE NORTHEASTERLY RIGHT-OF-WAY LINE OF SAID HIGHWAY;
THENCE N. 37°25'00" W. 204.12 FEET ALONG THE NORTHEASTERLY RIGHT-OF-WAY LINE OF SAID HIGHWAY;
THENCE N. 45°08'00" W. 31.10 FEET ALONG THE NORTHEASTERLY RIGHT-OF-WAY LINE OF SAID HIGHWAY;
THENCE N. 01°14'00" E. 171.59 FEET TO THE POINT OF BEGINNING.

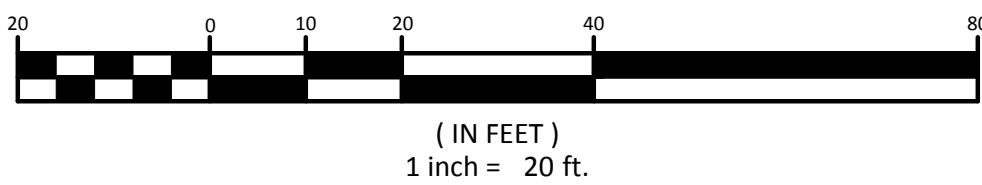
COUNTY OF GARFIELD
STATE OF COLORADO

EXISTING CONDITIONS LEGEND

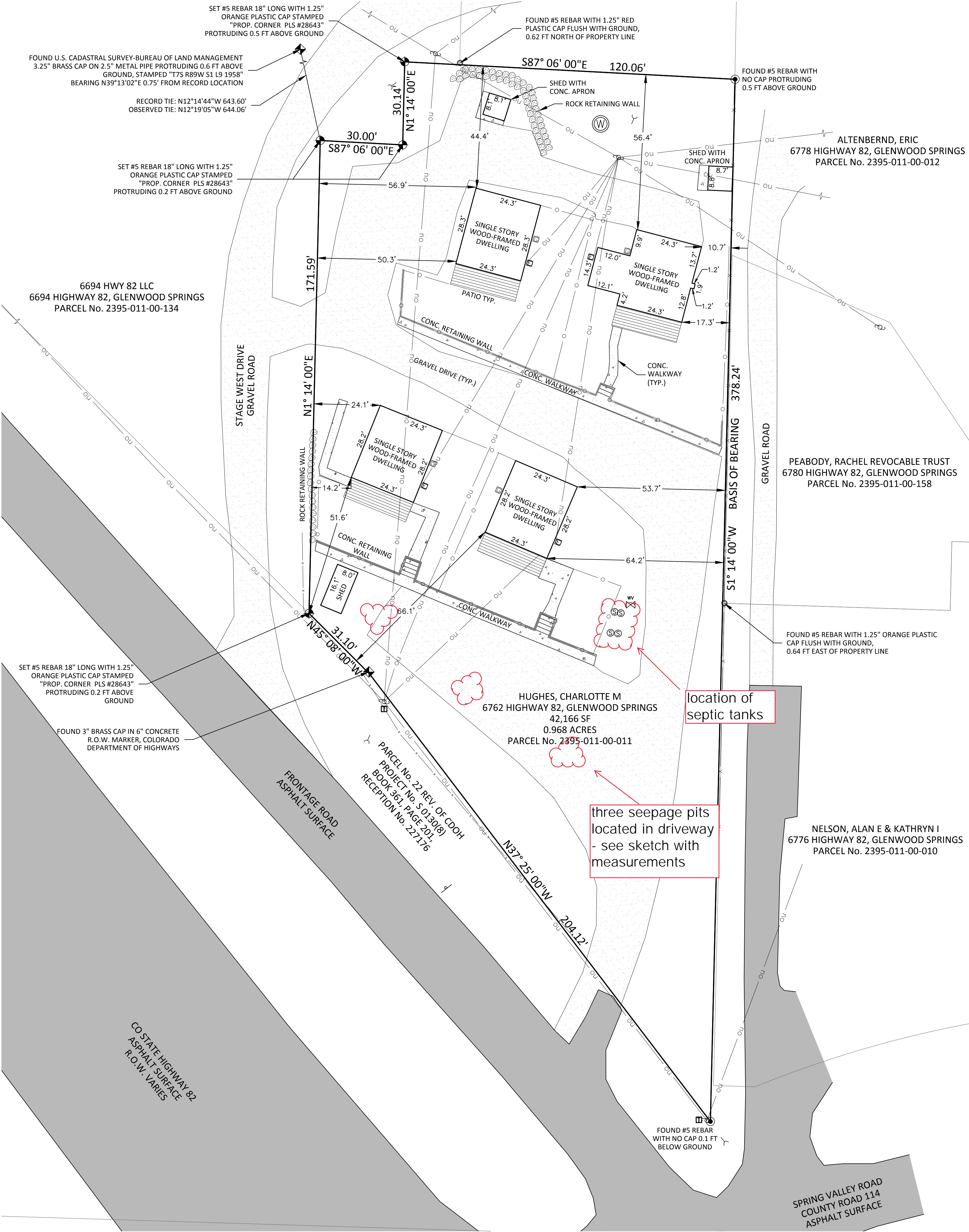
	TELEPHONE PEDESTAL
	ELECTRIC METER
	GAS METER
	SEPTIC MANHOLE
	WATER VALVE
	GUY WIRE
	POWER POLE
	OVERHEAD UTILITIES
	CHAINLINK FENCE
	WIRE FENCE
	WELL
	SIGN



GRAPHIC SCALE



NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF CERTIFICATION SHOWN HEREON.



NOTES

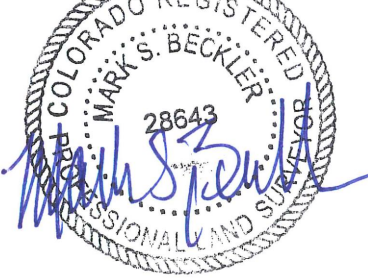
- 1) Date of Survey: November 27-28, 2018, December 3-5, 2018.
- 2) Date of Preparation: December 6, 2018.
- 3) Basis of Bearing: A bearing of S 1°14'00" W between the Southeast boundary corner of subject property, monumented by a found #5 rebar with no cap, to the Northeast boundary corner of subject property, monumented by a found #5 rebar with no cap, as shown.
- 4) Basis of Survey: The Deed recorded with the Garfield County Clerk and Recorder's Office on December 30, 1975, in Book 481, Page 640 as Reception No. 270767, and the Colorado Department of Highways' Deed recorded with the Garfield County Clerk and Recorder's Office on October 5, 1964, in Book 361, Page 201 as Reception No. 227176, as well as various other documents of record, and the found survey monuments, as shown.
- 5) This survey does not constitute a title search by Sopris Engineering, LLC (SE) to determine ownership or easements of record. For all information regarding easements, rights of way and/or title of record, SE relied upon the above said deeds described in note 4, and the title commitment prepared by Land Title Guarantee Company, at Order No. AB564002231-4 with an effective date of November 2, 2018.

SURVEYOR'S CERTIFICATE

I hereby state that this Improvement Survey Plat was prepared by Sopris Engineering, LLC (SE) for

Alan E. Nelson and Kathryn I. Nelson
& Land Title Guarantee Company.

I furthermore state that the improvements on the above described parcel on this date, December 5, 2018, except utility connections are entirely within the boundaries of the parcel except as shown, that there are no encroachments upon the described premises by improvements on any adjoining premises, except as indicated, and that there is no apparent evidence or sign of any easement crossing or burdening any part of said parcel, except as noted. I furthermore state that this property is subject to reservations, restrictions, covenants and easements of record or in place.



Mark S. Beckler L.S. #28643

SOPRIS ENGINEERING - LLC

CIVIL CONSULTANTS

502 MAIN STREET, SUITE A3

CARBONDALE, COLORADO 81623

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Do Your Part, Be SepticSmart:

The Do's and Don'ts of Your Septic System

Learn these simple steps to protect your home, health, environment and property value:



Protect It and Inspect It:

Do:

- Have your system inspected (in general) every three years by a licensed contractor and have the tank pumped, when necessary, generally every three to five years.

Think at the Sink:

Don't:

- Pour cooking grease or oil down the sink or toilet.
- Rinse coffee grounds into the sink.
- Pour household chemicals down the sink or flush them.

Do:

- Eliminate or limit the use of a garbage disposal.
- Properly dispose of coffee grounds & food.
- Put grease in a container to harden before discarding in the trash.

Don't Overload the Commode:

Don't:

- Flush non-degradable products or chemicals, such as feminine hygiene products, condoms, dental floss, diapers, cigarette butts, cat litter, paper towels, pharmaceuticals.

Do:

- Dispose of these items in the trash can!

Shield Your Field:

Don't:

- Park or drive on your drainfield. The weight can damage the drain lines.
- Plant trees or shrubs too close to your drainfield, roots can grow into your system and clog it.

Do:

- Consult a septic service professional to advise you of the proper distance for planting trees and shrubs, depending on your septic tank location.

Don't Strain Your Drain:

Don't

- Concentrate your water use by using your dishwasher, shower, washing machine, and toilet at the same time. All that extra water can really strain your septic system.

Do:

- Stagger the use of water-generating appliances. This can be helpful especially if your system has not been pumped in a long time.
- Become more [water efficient](#) by fixing plumbing leaks and consider installing bathroom and kitchen faucet aerators and water-efficient products.

For more SepticSmart tips, visit: www.epa.gov/septicSMART