Preliminary & Field Evaluation Form

www.SepticResource.com vers 12.4

Owner Information

Date	5/13/2021	Sec / Twp / Rng	
Parcel ID	24-1-074100	LUG (county, city, township)	Aitkin
Property Owner:	Dale Findell	Owners address (if different)	
Property Address:	30520 376th Ave	34925 Raven St NW	
City / State / Zip:	Aitkin, MN 56431	Cambridge, MN 55008	

Flow Information and Waste Type / Strength

Estimated Design flow: 300 gpd

Comments:

2 Bedroom Cabin - covnert to holding tank only

Anticipated Waste strength	☐ Hi Strength	☑ Domestic
Any Non-Domestic Waste	☐ Yes (class V)	☑ No
Sewage ejector/grinder pump	☑ Yes	☐ No
Water softener	☐ Yes	☑ No
Garbage Disposal	☐ Yes	☑ No
Daycare / In home business	☐ Yes	☑ No

Site Information

Existing & proposed lot improvements located (see site map)	☑ Yes	☐ No	Well casing depth	>50'
Easements on lot located (see site map)	☐ Yes	☑ No	Drainfield w/in 100' of residential well	☐ Yes ☑ No
Property lines determined (see site map)	☑ Yes	☐ No	Site w/in 200' of transient noncommunity water supply (TNCWS)	☐ Yes ☑ No
Req'd setbacks determined (see site map)	☑ Yes	☐ No	Site w/in an inner wellhead mgmt zone (CWS/NTNCWS)	☐ Yes ☑ No
Utilities located & identified (gopher state one call)	☐ Yes	☑ No	Buried water supply pipe w/in 50' of system	☐ Yes ☑ No
Access for system maintenance (shown on site map)	☑ Yes	☐ No	Site located in Shoreland (w/in 1000' of lake, 300' of river)	☑ Yes ☐ No
Soil treatment area protected	☐ Yes	☐ No	Site map prepared with previous items included	☑ Yes ☐ No

Construction related issues

Soil Information

Evidence of site:

Cut	☐ Yes	☑ No
Filled	☐ Yes	☑ No
Compacted	☐ Yes	☑ No
Disturbed	☐ Yes	☑ No

Original soils ☑ Yes ☐ No

Soil logs completed and attached ☐ Yes ☑ No

Perk test completed and attached (if applicable) ☐ Yes ☑ No

Soil loading rate (gpd/ft^2) NA

Percolation rate (if applicable) NA

Depth/elev to SHWT NA

Flooding or run-on potential (comments) ☐ Yes ☑ No

Depth to system bottom maximum (or elev minimum) NA

Flood elevation (if applicable) NA

Depth/elev to standing water (if applicable) NA

Elevation of ordinary high water level (if applicable) NA

Depth/elev to bedrock (if applicable) NA

Soil Survey information determined (see attachment) ☐ Yes ☑ No

Floodplain designation and elev - 100 yr/10 yr (if applicable) NA

Differences between soil survey and field evaluation (if applicable) Not Applicable

I hereby certify this evaluation was completed in accordance with MN 7080 and any local req's.

Designer Signature	Septic Check	2624
	Company	License #

Holding Tank Design
Additional Information

SEPTIC CHECK

Property Owner: Dale Findell – 30520 376th Ave Aitkin, MN 56431

Proposed Update Summary:

This Type II holding tank design is for a two-bedroom class I home. A compliance inspection was completed on 12/23/20; the drainfield did not meet compliance requirements due to soil separation. The tank was not pumped at the time, so we hired Gobles on 4/29/21 to inspect the tank. It meets requirements for reuse; documentation attached. For this design we will be disconnecting the 1,000-gallon tank from the drainfield to use as a holding tank only. The property does not have an undisturbed location for a new Type I system.

Sewage from the home flows into a 30-gallon lift basin to the 1,000 gallon tank that is to be converted into the holding tank. The pump, floats and any other components must be removed and disposed of properly. The outlet pipe will need to be dug up, cut off and permanently sealed. An inspection is required by the county prior to covering the pipe. The installer must also take a photo of it to include with the As-Built drawing for the county. A new manhole cover equipped with a visual bobber alarm will be installed.

It is the installer's responsibility to make sure the tank area is seeded and mulched prior to final completion.

Keep all vehicles and construction equipment off any septic area desired for future use. Rutting and/or compacting the soil will change the percolation rates.

Homeowner to verify all property lines.

Installer to verify all elevations, dimensions, and ensure proper fall to pipes.

Establish turf to prevent erosion and freezing.

Each tank is to be pumped through the maintenance cover when serviced. Do not pump through inspection pipes.

Homeowner is responsible for all costs involved in servicing, monitoring, and mitigating the system.

All construction to be performed in accordance with MN Rule 7080 and the Aitkin County septic ordinance.

Maintenance Requirements

See attached operating permit or management plan for details.

2011 purple code

Holding tank Design

www.SepticResource.com (vers 19.2)

Property Owner: Dale Findell **Date:** 5/13/2021

Site Address: 30520 376th Ave Aitkin MN 56431 **PID:** 24-1-074100

Comments:

instructions: = site specific input = adjust if desired [x] = self-calculated (DO NOT ADJUST)

1) [2] bedroom Type [II] Residential System

2) [300] GPD design flow

[ ] Lift station to holding tank (lift basket < 100 gal treat as sewer line, > 100 gal treat as tank)

3) [1000] Gallon Holding tank (minimum) at [25.00] gpi

4) [32] inches from bottom of tank to "Hi Level" float (75% full when alarm activates)

5) [250] gallons reserve capacity (after High Level Alarm is activated)

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

Designer Signature	Company	License#	Date
	Septic Check	2624	5/13/2021

INSPECTOR CHECK LIST - Holding Tank

30520 376th Ave Aitkin MN 56431

- ☐ WELL setbacks: 20'-50' to sewer line req's MDH pressure test form (5 psi for 15 min)
  50' to everything
- ☐ PROPERTY LINES setback: 10' to everything
- ☐ Road setback: platted : 10' prop line. Metes & bounds : out of road easement, or outer ditch
- ☐ LAKE / BLUFF setback: 20' for bluff. Lakes: GD ___, RD ___, NE ____. Protected wetland ___.
- ☐ Building setbacks: 10' for everything.
- ☐ WATER LINE under pressure 10' to tank & sewer line. (else sewer line > 12" below)

- ☐ Sewer line & tank connection (no hard 90's, long sweep 90 or 2- 45's, slope minimum 1" in 8' = 1%)
  (no depth req's, clean out every 100', Sch 40 pipe)
- ☐ 0 Lift station to Holding tank (lift basket < 100 gallons treat as sewer line, >100 gal treat as tank)

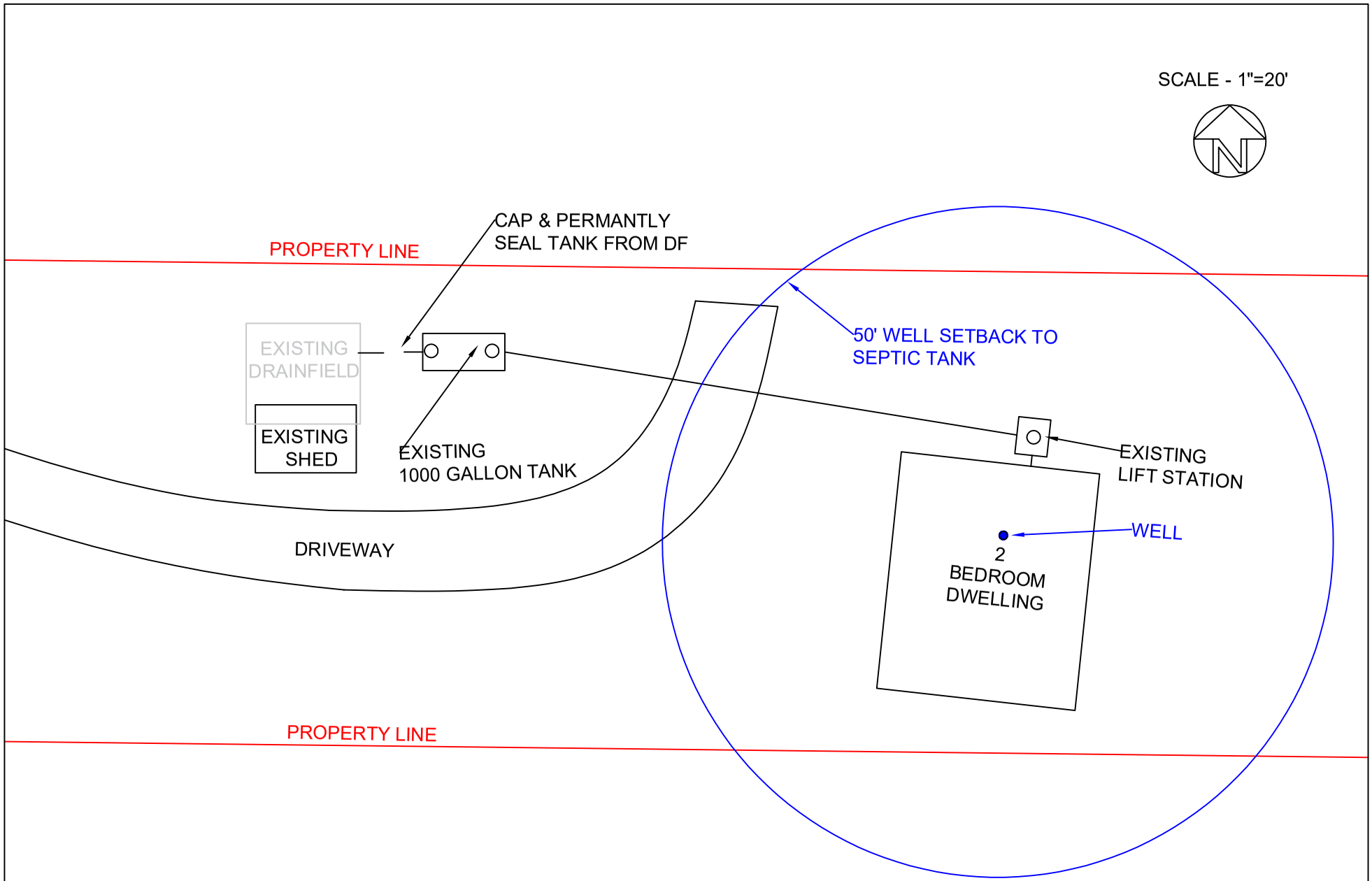
- ☐ Holding tank and risers (water tight risers, insulated, proper depth, existing verified by pumping)
  mfg_____ 1000 gallons

- ☐ Riser within 12" of grade, 6"+ access pipe to grade.

- ☐ High Level Alarm (set at 75% capacity) (electrical or mechanical) 32 inches from bottom of tank

- ☐ Water tight testing form

- ☐ Re-use existing tank certification
- ☐ Abandon existing system if necessary
- ☐ monitoring plan and type _____
- ☐ well abandonment form if necessary



PREPARED FOR:	PROPERTY LOCATION	LEGAL DESCRIPTION			PAGE TITLE	SHEET NUMBER
Dale Findell	30520 376th Ave Aitkin, MN 56431	Aitkin County, Minnesota PID# 24-1-074100	*SEPTIC CHECK* 6074 KEYSTONE RD MILACA, MN 56353 (320)-983-2447 (FAX) (320)-983-2151	I hereby certify that this site plan was prepared by me or under my direct supervision. *Melissa Besser M. P. C. A. License # 2024* DATE 5/17/21	SITE MAP	1 OF 1

Goble's Sewer Service inc.

1037 1st Street NW
Aitkin, MN 56431 License # 455
927-6175 800-713-5234
MPCA registered company

Septic tank fact sheet: Septic Check
System inspector or installer

Current septic tank owner: FINDELL, DALE

Site address: 30520 376th Ave
Aitkin MN 56431

Phone number:

Tank type: Precast Concrete

Approx. size (gallons): 30 gallon Lift to 1000 Gallon Septic Tank

Approx. age:

Lift station (how many): Yes(1)

Our procedure for inspecting a septic tank is as follows.

Open the access cover.

Clean the septic and lift tanks removing all of the solid and liquid waste.

Do a fresh water rinse (not available during cold winter months).

Look at the septic & or lift tank from the access opening looking for cracks, breaks or other signs of deterioration.
Check to see if the baffles are still functional.

Replace the access cover.

Defects are listed below:
NONE

Recommendations or comments:
Tank is ok and does not appear to leak.

Observed by:
Dan Swanson

Observation date:
April 29, 2021

Note: This tank appears water tight within the normal operating range of the tank, there are no guarantees that it will keep ground water out.

Note: This is a septic tank fact sheet, not a complete sewer system inspection form and does not replace a complete sewer inspection for transfer of property. In some instances, this form may be used in conjunction with a sewer inspection.

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

Sewage tank integrity assessment form

Subsurface Sewage Treatment Systems (SSTS) Program

Purpose: This form **may** be used to certify the compliance status of the sewage tank components of the SSTS. **This form is not a complete SSTS inspection report, only a tank integrity assessment, and may only certify sewage tank compliance status when entirely completed and signed by a qualified professional.** SSTS compliance inspection report forms can be found at: https://www.pca.state.mn.us/water/inspections.

Instructions: This form may be completed, and signed, by a Designated Certified Individual (DCI) of a licensed SSTS inspection, maintenance, installation, or service provider business who personally conducts the necessary procedures to assess the compliance status of each sewage tank in the system. A copy of this information should be submitted to the system owner and be maintained by the licensed SSTS business for a period of five (5) years from the assessment date.

When this form is signed by a qualified certified professional, it becomes *necessary supporting documentation* to an Existing System Compliance Inspection Report: Compliance inspection form - Existing system (wq-wwists4-31b). This form can be found on the MPCA website at https://www.pca.state.mn.us/water/inspections.

The information and certified statement on this form is **required** when existing septic tank compliance status is determined by an individual other than the SSTS Inspector that submits an inspection report. This form represents a third party assessment of SSTS component compliance and is allowable under Minn. R. 7082.0700, subp. 4 Item (B) subitem (1). This form is valid for a period of three years beyond the signature date on this form unless a new evaluation is requested by the owner or owner's agent or is required according to local regulations. Additional Administrative Rule references for this activity can be found at Minn. R. 7082.0700, subp. 4 Items B, C, and D; 7083.0730 Item C.

☒ **Certificate of sewage tank compliance**

Affirm all three statements:

- ☒ The SSTS does not contain a seepage pit, cesspool, drywell, leaching pit, or other pit.
- ☒ It does not contain a sewage tank that was designed to be watertight, but subsequently leaks below the designed operating depth.
- ☒ It does not represent an imminent safety threat by reason of unsecured, damaged, or weak maintenance hole cover(s) or other unsafe condition.

☐ **Notice of sewage tank non-compliance**

Select all that apply:

- ☐ The SSTS has a seepage pit, cesspool, drywell, leaching pit, or other pit – "**Failure to Protect Groundwater.**"
- ☐ It has a sewage tank that was designed to be watertight, but subsequently leaks below the designed operating depth – "**Failure to Protect Groundwater.**"
- ☐ It presents a threat to public safety by reason of unsecured, damaged, or weak maintenance hole cover(s) or other unsafe condition – w"**Imminent Threat to Public Health or Safety.**"

Company information

Company name: Gobles Sewer Service Inc

Business license number: L455

Designated Certified Individual (DCI) information

Print name: Dan Swanson

Certification number: C6023

I personally conducted the work described above as a Designated Certified Individual of a Minnesota-licensed SSTS inspection, maintenance, installation, or service provider Business. I personally conducted the necessary procedures to assess the compliance status of each sewage tank in this SSTS.

***By typing/signing my name below**, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing this form.*

Designated Certified Individual's signature: Dan Swanson
(This document has been electronically signed.)

Date (mm/dd/yyyy): 4/29/2021

UNIVERSITY OF MINNESOTA

Septic System Management Plan for Holding Tank Systems

The goal of a septic system is to protect human health and the environment by properly treating wastewater before returning it to the environment. Your holding tank system is designed to store your used water before it is recycled back into our lakes, streams and groundwater.

This **management plan** will identify the operation and maintenance activities necessary to ensure compliance with applicable rules and regulations. Some of these activities must be performed by you, the homeowner. Other tasks must be performed by a licensed septic maintainer. However, it is YOUR responsibility to make sure all tasks get accomplished in a timely manner.

The University of Minnesota's *Septic System Owner's Guide* contains additional tips and recommendations designed to extend the effective life of your system and save you money over time.

Proper septic system design, installation, operation and maintenance means safe and clean water!

Property Owner: Dale Findell

Property Address: 30520 376th Ave Aitkin, MN Property ID: 24-1-074100

System Designer: Septic Check License #: 2624

System Installer: Septic Check License #: 2624

Service Provider/Maintainer: Phone:

Permitting Authority: Aitkin Phone: 218-927-7342

Permit #: Date Inspected:

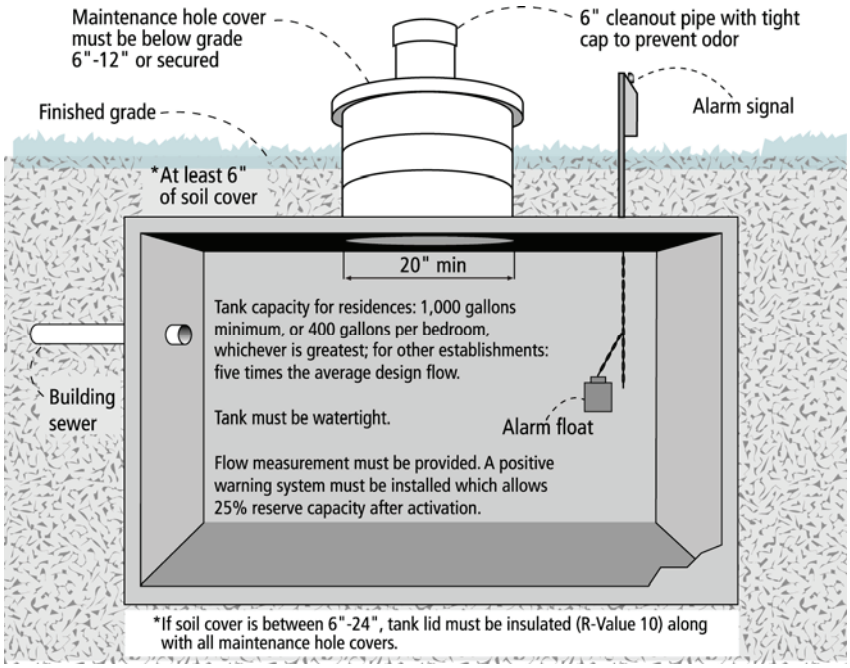
Keep this Management Plan with your Septic System Owner's Guide. The Septic System Owner's Guide includes a folder to hold maintenance records including pumping, inspection and evaluation reports. Ask your septic professional to also:

- Attach permit information, designer drawings and as-builts of your system, if they are available.
- Keep copies of all pumping records and other maintenance and repair invoices with this document.
- Review this document with your maintenance professional at each visit; discuss any changes in product use, activities, or water-use appliances.

For a copy of the *Septic System Owner's Guide*, call 1-800-876-8636 or go to http://shop.extension.umn.edu/

http://septic.umn.edu

Your Holding Tank



Dwelling Type	Well Construction
Number of bedrooms: 2	Well depth (ft): Deep
System capacity/ design flow (gpd): 300	☑ Cased well Casing depth: _____
Anticipated average daily flow (gpd): <300	☐ Other (specify): _____
Comments_____	Distance from septic (ft): >50'
In-home business? ___ What type? _____	Is the well on the design drawing? ◉ Y ○ N
Number of occupants _____	

Holding Tank	
◉ One tank: *Tank volume:* 1000 *gallons*	☐ Flow measurement device: Bobber
○ Two tanks: *Tank volume:* _____ *gallons*	☐ Location: MH cover of tank
☐ Tank is constructed of Concrete	☐ Alarm ✓ visual _____ audible
	☐ Reserve %: 25
☐ Service contract held by: _____	
☐ Service contract is attached to this management plan	

Homeowner Management Tasks

These op*eration and maintenance ac*tivities are your responsibility. *Use the chart on page 6 to track your activities.*

Identify the service intervals recommended by your system designer and your local government. The tank assessment for your system will be the **shortest interval of these three intervals**. Your pumper/maintainer will determine if your tank needs to be pumped.

Tank capacity ÷ (# of occupants X 50 Gallons/day) = # of days between cleaning

OR

Within 24 hours of alarm signal

System Designer: check every 30_____ days

Local Government: check every _____ days

My tank needs to be emptied every _____ days

Seasonally

- ❑ *Monitor alarm daily – make sure the alarm has not signaled.* Alarms signal when your holding tank is nearly full; contact your maintainer.
- ❑ *Measure* and note your average daily water usage on page 5. Conserving water saves you money!
- ❑ *Leaks.* Check (listen, look) for leaks in toilets and dripping faucets. Repair leaks promptly.

Annually

- ❑ Establish a contract for tank cleaning services with a state licensed maintenance business.
- ❑ *Caps.* Make sure that all caps and lids are intact and in place. Inspect for damaged caps at least every fall. Fix or replace damaged caps before winter to help prevent freezing issues.
- ❑ *Water conditioning devices.* See Page 5 for a list of devices. When possible, discharge clear water sources to another location. Program the recharge frequency based on *water demand (gallons)* rather than *time (days)*. Recharging too frequently will result in increased pumping costs.
- ❑ *Review your water usage rate.* Review the Water Use Appliance chart on Page 5. Discuss any major changes with your pumper/maintainer.

During each visit by a pumper/maintainer

- ❑ Ask if your pumper/maintainer is licensed in Minnesota.
- ❑ Make sure that your pumper/maintainer has clear access to the holding tank and completely empties the tank
- ❑ Ask your pumper/maintainer to accomplish the tasks listed on the Professional Tasks on Page 4.

Professional Management Tasks

These are the operation and maintenance activities that a pumper/maintainer performs to help ensure long-term performance of your system. Professionals should refer to the O/M Manual for detailed checklists for tanks, pumps, alarms and other components. Call 800-322-8642 for more details.

- ❑ Written record provided to homeowner after each visit.

Plumbing/Source of Wastewater

- ❑ Review the Water Use Appliance Chart on Page 5 with homeowner. Discuss any changes in water use and the impact those changes may have on the frequency of maintenance.
- ❑ Review and document water usage rates with homeowner.

Holding Tanks

- ❑ *Maintenance hole lid*. A riser is recommended if the lid is not accessible from the ground surface. Insulate the riser cover for frost protection.
- ❑ *Liquid level*. Check to make sure the tank is not leaking.
- ❑ *Inspection pipes*. Replace damaged caps.
- ❑ *Alarm*. Verify that the alarm works and that there is at least 25% reserve capacity.
- ❑ *End of year seasonal property pumping*. Remind homeowner of most frequent causes of tank and building sewer freeze-ups. Ensure that there are no "micro-sources" of water such as a high efficiency furnace or other dripping devices. Determine a logical winter water use plan that will not result in need for emergency visit(s).

All other components – inspect as listed here:

Water-Use Appliances and Equipment in the Home

Appliance	Impacts on Holding Tank	Management Tips
Garbage disposal	• Uses water and increases pumping frequency and expense.	• Use of a garbage disposal is not recommended. • Minimize garbage disposal use. Compost instead.
Washing machine	• Uses water and increases pumping frequency and expense.	• Choose a front-loader or water-saving top-loader, these units use less water than older models. • Wash only full loads. • Do laundry off site.
Dishwasher	• Uses water and increases pumping frequency and expense.	• Wash only full loads.
Large bathtub (whirlpool)	• Uses water and increases pumping frequency and expense.	• Take short showers to conserve water.
Clear Water Uses	**Impacts on Holding Tank**	**Management Tips**
High-efficiency furnace	• Drip may result in frozen pipes during cold weather.	• Re-route water into a sump pump or directly out of the house. Do not route furnace recharge to your holding tank.
Water softener Iron filter Reverse osmosis	• Uses water and increases pumping frequency and expense.	• These sources produce water that is not sewage and should not go into your holding tank. • Reroute water from these sources to another outlet, such as a dry well, drain tile or old drainfield. • When replacing, consider using a demand-based recharge vs. a time-based recharge. • Check valves to ensure proper operation; have unit serviced per manufacturer directions
Surface drainage Footing drains	• Uses water and increases pumping frequency and expense.	

Maintenance Log

Track maintenance activities here for easy reference. See list of management tasks on pages 3 and 4.

Activity	Date accomplished/measured water usage									
Check daily for a period of time and weekly once average use is determined:										
Water usage rate (gallons per day)										
Leaks: check for plumbing leaks										
Annually:										
Establish and maintain contract for holding tank pumping services										
Water use appliances – review use										

Water Meter Reading and Tank Evacuation Schedule			
Date	**Water Meter Reading (in gallons)**	**Tank Contents Removed?**	**Total Gallons Removed**

Notes:

Mitigation/corrective action plan:

Check for and repair any leaks into the system including indoor plumbing or any water using fixtures.

"As the owner of this SSTS, I understand it is my responsibility to properly operate and maintain the sewage treatment system on this property, utilizing the Management Plan. If requirements in this Management Plan are not met, I will promptly notify the permitting authority and take necessary corrective actions.

Property Owner Signature: Dal Fuhrmann Date 5/19/21

Management Plan Prepared By: Melissa Besser Certification # C691

Permitting Authority: Aitkin