



Preliminary Evaluation Worksheet



v 04.01.2021

1. Contact Information

Property Owner/Client: Date Completed:

Site Address: Project ID:

Email: Phone:

Mailing Address: Alt Phone:

Legal Description:

Parcel ID: SEC: TWP: RNG:

2. Flow and General System Information

A. Client-Provided Information

Project Type: New Construction Replacement Expansion Repair

Project Use: Residential Other Establishment:

Residential use: # Bedrooms: Dwelling Sq. ft.: Unfinished Sq. Ft.:

Adults: # Children: # Teenagers:

In-home business (Y/N): If yes, describe:

Water-using devices: (check all that apply)

<input type="checkbox"/> Garbage Disposal/Grinder	<input type="checkbox"/> Dishwasher	<input type="checkbox"/> Hot Tub*
<input type="checkbox"/> Sewage pump in basement	<input checked="" type="checkbox"/> Water Softener*	<input type="checkbox"/> Sump Pump*
<input type="checkbox"/> Large Bathtub >40 gallons	<input type="checkbox"/> Iron Filter*	<input type="checkbox"/> Self-Cleaning Humidifier*
<input type="checkbox"/> Clothes Washing Machine	<input type="checkbox"/> High Eff. Furnace*	<input type="checkbox"/> Other: <input type="text"/>

* Clear water source - should not go into system

Additional current or future uses:

Anticipated non-domestic waste:

The above is complete & accurate:

Client signature & date

B. Designer-determined flow Information *Attach additional information as necessary.*

Design Flow: GPD Anticipated Waste Type:

BOD: mg/L TSS mg/L Oil & Grease mg/L

3. Preliminary Site Information

A. Water Supply Wells

#	Description	Mn. ID#	Well Depth (ft.)	Casing Depth (ft.)	Confining Layer	STA Setback	Source
1							
2							
3							
4							

Additional Well Information:



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Site within 200' of noncommunity transient well (Y/N)	<input type="text" value="No"/>	Yes, source: <input style="width: 100%;" type="text"/>
Site within a drinking water supply management area (Y/N)	<input type="text" value="No"/>	Yes, source: <input style="width: 100%;" type="text"/>
Site in Well Head Protection inner wellhead management zone (Y/N)	<input type="text" value="No"/>	Yes, source: <input style="width: 100%;" type="text"/>
Buried water supply pipes within 50 ft of proposed system (Y/N)	<input type="text" value="No"/>	
B. Site located in a shoreland district/area?	<input type="text" value="Yes"/>	Yes, name: <input style="width: 100%;" type="text"/>
Elevation of ordinary high water level:	<input style="width: 50%;" type="text"/> ft	Source: <input style="width: 100%;" type="text"/>
Classification: <input style="width: 150%;" type="text"/>	Tank Setback: <input style="width: 50%;" type="text" value="50"/> ft.	STA Setbk: <input style="width: 50%;" type="text" value="100"/> ft.
C. Site located in a floodplain?	<input type="text" value="No"/>	Yes, Type(s): <input style="width: 100%;" type="text" value="N/A"/>
Floodplain designation/elevation (10 Year):	<input style="width: 50%;" type="text" value="N/A"/> ft	Source: <input style="width: 100%;" type="text" value="N/A"/>
Floodplain designation/elevation (100 Year):	<input style="width: 50%;" type="text" value="N/A"/> ft	Source: <input style="width: 100%;" type="text" value="N/A"/>
D. Property Line Id / Source:	<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Survey <input checked="" type="checkbox"/> County GIS <input type="checkbox"/> Plat Map <input type="checkbox"/> Other: <input style="width: 100%;" type="text"/>	
E. ID distance of relevant setbacks on map:	<input type="checkbox"/> Water <input type="checkbox"/> Easements <input type="checkbox"/> Well(s) <input type="checkbox"/> Building(s) <input type="checkbox"/> Property Lines <input type="checkbox"/> OHWL <input type="checkbox"/> Other: <input style="width: 100%;" type="text"/>	

4. Preliminary Soil Profile Information From Web Soil Survey (attach map & description)

Map Units: <input style="width: 150%;" type="text"/>	Slope Range: <input style="width: 50%;" type="text"/> %
List landforms: <input style="width: 150%;" type="text"/>	
Landform position(s): <input style="width: 150%;" type="text"/>	
Parent materials: <input style="width: 150%;" type="text"/>	
Depth to Bedrock/Restrictive Feature: <input style="width: 50%;" type="text"/> in	Depth to Watertable: <input style="width: 50%;" type="text"/> in
Map Unit Ratings	Septic Tank Absorption Field- At-grade: <input style="width: 150%;" type="text"/>
	Septic Tank Absorption Field- Mound: <input style="width: 150%;" type="text"/>
	Septic Tank Absorption Field- Trench: <input style="width: 150%;" type="text"/>

5. Local Government Unit Information

Name of LGU:	<input style="width: 150%;" type="text" value="aitkin county"/>
LGU Contact:	<input style="width: 150%;" type="text" value="kevin"/>
LGU-specific setbacks:	<input style="width: 150%;" type="text"/>
LGU-specific design requirements:	<input style="width: 150%;" type="text"/>
LGU-specific installation requirements:	<input style="width: 150%;" type="text"/>

Notes:



Field Evaluation Worksheet



v 04.01.2021

1. Project Information

Property Owner/Client: Project ID:

Site Address: Date Completed:

2. Utility and Structure Information

Utility Locations Identified Gopher State One Call # Any Private Utilities:

Locate and Verify (see Site Evaluation map) Existing Buildings Improvements Easements Setbacks

3. Site Information

Vegetation type(s): Landscape position:

Percent slope: % Slope shape: Slope direction:

Describe the flooding or run-on potential of site:

Describe the need for Type III or Type IV system:

Note:

Proposed soil treatment area protected? (Y/N): If yes, describe:

4. General Soils Information

Filled, Compacted, Disturbed areas (Y/N):

If yes, describe:

Soil observations were conducted in the proposed system location (Y/N):

A soil observation in the most limiting area of the proposed system (Y/N):

Number of soil observations: Soil observation logs attached (Y/N):

Percolation tests performed & attached (Y/N):

5. Phase I. Reporting Information

	Depth	Elevation	
Limiting Condition*:	<input type="text"/> in	<input type="text"/> ft	*Most Restrictive Depth Identified from List Below
Periodically saturated soil:	<input type="text"/> in	<input type="text"/> ft	Soil Texture: <input type="text"/>
Standing water:	<input type="text"/> in	<input type="text"/> ft	Percolation Rate: <input type="text"/> min/inch
Bedrock:	<input type="text"/> in	<input type="text"/> ft	Soil Hyd Loading Rate: <input type="text"/> gpd/ft ²
Benchmark Elevation:	<input type="text"/>	ft	Elevations and Benchmark on map? (Y/N): <input type="text"/>
Benchmark Elevation Location:	<input type="text"/>		
Differences between soil survey and field evaluation:	<input type="text"/>		
Site evaluation issues / comments:	<input type="text"/>		
Anticipated construction issues:	<input type="text"/>		

1. PROJECT INFORMATION

Property Owner/Client: Project ID:

Site Address: Date:

Email Address: Phone:

2. DESIGN FLOW & WASTE STRENGTH

Attach data / estimate basis for Other Establishments

Design Flow: GPD Anticipated Waste Type:

BOD: mg/L TSS: mg/L Oil & Grease: mg/L

Treatment Level: *Select Treatment Level C for residential septic tank effluent*

3. HOLDING TANK SIZING

Minimum Capacity: Residential = 400 gal/bedroom, Other Establishment = Design Flow x 5.0, Minimum size 1000 gallons

Code Minimum Holding Tank Capacity: Gallons in Tanks or Compartments

Recommended Holding Tank Capacity: Gallons in Tanks or Compartments

Type of High Level Alarm: (Set @ 75% tank capacity)

Comments:

4. SEPTIC TANK SIZING

A. Residential dwellings:

Number of Bedrooms (Residential):

Code Minimum Septic Tank Capacity: Gallons in Tanks or Compartments

Recommended Septic Tank Capacity: Gallons in Tanks or Compartments

Effluent Screen & Alarm (Y/N): Model/Type:

B. Other Establishments:

Waste received by: GPD x Days Hyd. Retention Time

Code Minimum Septic Tank Capacity: Gallons in Tanks or Compartments

Recommended Septic Tank Capacity: Gallons in Tanks or Compartments

Effluent Screen & Alarm (Y/N): Model/Type:

5. PUMP TANK SIZING

Pump Tank 1 Capacity (Minimum): <input type="text" value="750"/> Gal	Pump Tank 2 Capacity (Minimum): <input type="text"/> Gal
Pump Tank 1 Capacity (Recommended): <input type="text" value="1000"/> Gal	Pump Tank 2 Capacity (Recommended): <input type="text"/> Gal
Pump 1 <input type="text" value="45.0"/> GPM Total Head <input type="text" value="20.1"/> ft	Pump 2 <input type="text"/> GPM Total Head <input type="text"/> ft
Supply Pipe Dia. <input type="text" value="2.00"/> in Dose Vol: <input type="text" value="140.0"/> gal	Supply Pipe Dia. <input type="text"/> Dose Vol: <input type="text"/> Gal



6. SYSTEM AND DISTRIBUTION TYPE		Project ID: <input style="width: 150px;" type="text"/>
Soil Treatment Type: <input style="width: 100px;" type="text"/>	Distribution Type: <input style="width: 150px;" type="text"/>	
Elevation Benchmark: <input style="width: 100px;" type="text"/> ft	Benchmark Location: <input style="width: 150px;" type="text"/>	
MPCA System Type: <input style="width: 100px;" type="text"/> Type II	Distribution Media: <input style="width: 150px;" type="text"/>	
Type III/IV Details: <input style="width: 150px;" type="text"/> holding tank	<input style="width: 150px;" type="text"/>	

7. SITE EVALUATION SUMMARY:

Describe Limiting Condition: Depth of Observation

Layers with >35% Rock Fragments? (yes/no) No If yes, describe below: % rock and layer thickness, amount of soil credit and any additional information for addressing the rock fragments in this design.

Note:

	Depth	Depth	Elevation of Limiting Condition
Limiting Condition:	<input style="width: 50px;" type="text"/> 0 inches	<input style="width: 50px;" type="text"/> 0.0 ft	<input style="width: 50px;" type="text"/> ft
Minimum Req'd Separation:	<input style="width: 50px;" type="text"/> 36 inches	<input style="width: 50px;" type="text"/> 3.0 ft	Elevation Critical for system compliance
Code Max System Depth:	<input style="width: 50px;" type="text"/> Mound inches	<input style="width: 50px;" type="text"/> -3.0 ft	<input style="width: 50px;" type="text"/> ft

This is the maximum depth to the bottom of the distribution media for required separation. Negative Depth (ft) means it must be a mound.

Soil Texture: Medium Sand

Soil Hyd. Loading Rate: 0.87 GPD/ft² Percolation Rate: MPI

Contour Loading Rate: 12 Note:

Measured Land Slope: 0 % Note:

Comments:

8. SOIL TREATMENT AREA DESIGN SUMMARY

Trench:

Dispersal Area <input style="width: 50px;" type="text"/> ft ²	Sidewall Depth <input style="width: 50px;" type="text"/> in	Trench Width <input style="width: 50px;" type="text"/> ft
Total Lineal Feet <input style="width: 50px;" type="text"/> ft	No. of Trenches <input style="width: 50px;" type="text"/>	Code Max. Trench Depth <input style="width: 50px;" type="text"/> in
Contour Loading Rate <input style="width: 50px;" type="text"/> ft	Minimum Length <input style="width: 50px;" type="text"/> ft	Designed Trench Depth <input style="width: 50px;" type="text"/> in

Bed:

Dispersal Area <input style="width: 50px;" type="text"/> ft ²	Sidewall Depth <input style="width: 50px;" type="text"/> in	Maximum Bed Depth <input style="width: 50px;" type="text"/> in
Bed Width <input style="width: 50px;" type="text"/> ft	Bed Length <input style="width: 50px;" type="text"/> ft	Designed Bed Depth <input style="width: 50px;" type="text"/> in

Mound:

Dispersal Area <input style="width: 50px;" type="text"/> ft ²	Bed Length <input style="width: 50px;" type="text"/> ft	Bed Width <input style="width: 50px;" type="text"/> ft
Absorption Width <input style="width: 50px;" type="text"/> ft	Clean Sand Lift <input style="width: 50px;" type="text"/> ft	Berm Width (0-1%) <input style="width: 50px;" type="text"/> ft
Upslope Berm Width <input style="width: 50px;" type="text"/> ft	Downslope Berm <input style="width: 50px;" type="text"/> ft	Endslope Berm Width <input style="width: 50px;" type="text"/> ft
Total System Length <input style="width: 50px;" type="text"/> ft	System Width <input style="width: 50px;" type="text"/> ft	Contour Loading Rate <input style="width: 50px;" type="text"/> gal/ft

Project ID: _____

At-Grade:

Bed Width ft Bed Length ft Finished Height ft
 Contour Loading Rate gal/ft Upslope Berm ft Downslope Berm ft
 Endslope Berm ft System Length ft System Width ft

Level & Equal Pressure Distribution

No. of Laterals Perforation Spacing ft Perforation Diameter in
 Lateral Diameter in Min Dose Volume gal Max Dose Volume gal

Non-Level and Unequal Pressure Distribution

	Elevation (ft)	Pipe Size (in)	Pipe Volume (gal/ft)	Pipe Length (ft)	Perf Size (in)	Spacing (ft)	Spacing (in)	
Lateral 1								Minimum Dose Volume <input type="text"/> gal
Lateral 2								
Lateral 3								Maximum Dose Volume <input type="text"/> gal
Lateral 4								
Lateral 5								
Lateral 6								

9. Additional Info for At-Risk, HSW or Type IV Design

A. Starting BOD Concentration = Design Flow X Starting BOD (mg/L) X 8.35 ÷ 1,000,000

gpd X mg/L X 8.35 ÷ 1,000,000 = lbs. BOD/day

B. Target BOD Concentration = Design Flow X Target BOD (mg/L) X 8.35 ÷ 1,000,000

gpd X mg/L X 8.35 ÷ 1,000,000 = lbs. BOD/day

Lbs. BOD To Be Removed:

PreTreatment Technology: *Must Meet or Exceed Target

Disinfection Technology: *Required for Levels A & B

C. Organic Loading to Soil Treatment Area:

mg/L X gpd x 8.35 ÷ 1,000,000 ÷ ft² = lbs./day/ft²

10. Comments/Special Design Considerations:

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

(Designer)

(Signature)

(License #)

(Date)

HOLDING TANK PUMPING SERVICE AGREEMENT 12-1-069700

Permit # _____ Address 34396 677TH LANE HICKEY

THIS AGREEMENT, entered into by and between Aitkin County Registered Septic Tank Pumper, RON MYERS, hereinafter referred to as "Contractor", and ANDY LARUE, hereinafter referred to as "Homeowner".

WHEREAS, Homeowner desires and is required to retain individual sewage treatment system holding tank services to protect the environment and to obtain a certificate of compliance from Aitkin County; and

WHEREAS, the Contractor desires to provide sewage treatment system pumping services to Homeowner as necessary and in accordance with the terms and conditions outlined herein.

NOW THEREFORE, in consideration of the mutual promises contained herein, Parties do hereby agree as follows:

1. **TERM.** The term of this Agreement shall be from 7/20/22 to final installation of an Aitkin County approved sewage treatment system or connection to a Municipal Sewage Treatment System, unless earlier terminated as provided herein. The parties understand and agree that this Agreement is intended to arrange for the provision of pumping services so that Homeowner may occupy the home pursuant to a certificate of compliance to be issued by the Aitkin County Environmental Services Department upon execution of this Agreement. Homeowner further agrees that at the earliest possible date, Homeowner shall have a permanent sewage treatment system installed in accordance with the Aitkin County Subsurface Sewage Treatment System Ordinance and as approved by the Aitkin County Environmental Services Department or connect to a Municipal Sewage Treatment System. Upon approval by the County of Aitkin of the individual sewage treatment system or connection to a municipal sewer, or approval by Aitkin County Environmental Services of an amended or different contract, this Agreement shall terminate.

2. **FREQUENCY OF PUMPING.** Homeowner agrees that he/she shall not allow the holding tank to overflow or discharge in any manner. Contractor and Homeowner agree that the holding tank shall be pumped in accordance with the following:

- Tank size (gal.) 1820 / (number of household occupants multiplied by 75 gallons per day) = frequency of pumping: or
- Within 24 hours of indication by tank alarm of lack of capacity (applicable only if system has a functional alarm):
- Whichever is greater

Contractor agrees to provide pumping services according to the regular pumping schedule or as needed to prevent discharge. Homeowner shall compensate Contractor as agreed by the parties for pumping services rendered.

3. **INSPECTION.** Holding tanks will be inspected by a licensed pumper at the time of servicing for leaks below the operating depth and whether tank tops, riser joints, and connections leak through visual evidence of major defects.

4. **REPORTING.** Grievances of Homeowner or Contractor shall be reported to the Aitkin County Environmental Services Department by Homeowner or Contractor. Homeowner and Contractor understand that failure to have holding tank pumped as herein specified or the discharge of any contents from the holding tank, regardless of fault, may result in the suspension, cancellation or revocation of the certificate of compliance, and the homeowner may be required to vacate the premises.

Ron Myers
Contractor

Homeowner

Date 7/20/22

Date _____