

Frances, Rays, Sakatah, Tetonka (FRST) Septic Inventory Project June 30, 2018



Presented by
Le Sueur County and Wenck
Associates, Inc

Agenda

- ▲ Sign-in, Get Some Coffee
- ▲ Introductions
 - Steve Rohlring, Le Sueur County Commissioner
 - Amy Beatty, Le Sueur County Environmental Services
 - Matthew Summers, Wenck Associates
- ▲ County Information – Amy Beatty
- ▲ Project Presentation – Matthew Summers
- ▲ Q & A

Project Team

▲ Le Sueur County

- SSTS Authority
- Grant Manager
- Amy Beatty, County lead

▲ Wenck Associates, Inc.

- Minnesota Based Environmental Engineering and Environmental Services Firm
- Matthew Summers, Project Manager/Inspector
- James Brothers Construction and Jaime Fessel, Contractors

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Scope of the FRST Septic System Inspections

▲ **Only "First-Tier" properties are subject to the Ordinance and a potential inspection:**

- ▲ System or structure within 350 feet of the lake
- ▲ A residential property whose structure, septic components, and reserve septic area are NOT within 350 feet of the lake is NOT subject to the Ordinance
- ▲ Currently vacant lots, or lots without septic or structures within 350 feet of the lake, would become subject to the Ordinance if anything is built within that 350 feet.

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Scope of the FRST Septic System Inspections

- ▲ **Not all properties subject to the Ordinance required an onsite inspection:**
- ▲ **The following were exempt:**
 - Systems installed and/or inspected and certified as compliant after January 1, 2011.
 - Systems inspected and certified as non-compliant after January 1, 2016.
 - Systems regulated by the state (over 10,000 gallons per day)

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What is a Septic System Compliance Inspection?

- ▲ Determine if the system meets state rules and is protective of groundwater and human health.
 - Sewage not discharging too close to groundwater: 36" between system bottom and seasonal high groundwater.
 - Sewage not discharging to surface water, to the ground, or into the building.
 - System components in safe condition (no loose tank lids, etc)



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What is a Septic System Compliance Inspection?

▲ Possible Inspection Results:

1. **Compliant.**
2. **Non-compliant:**
 - Imminent Threat to Public Health and Safety (ITPHS):
 - Discharging sewage to surface water, ground, or building; unsafe conditions
 - Failure to Protect Groundwater (FTPG):
 - Drainfield doesn't have required 36" of separation from seasonal groundwater, or tanks leak below the water line



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What is a Septic System Compliance Inspection?

▲ A Compliant System Has:

- Watertight septic tank or holding tank below the operating depth
- No signs of surfacing (wet spots) in the yard or backing up into home
- No dangerous conditions (exposed electric lines, unsafe tanks, etc.)
- Drain field or mound meets vertical separation requirement

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What if My System Was Found to be Non-Compliant?

▲ System must be upgraded:

- Failure to Protect Groundwater (FTPG) non-compliance must be upgraded by December 31, 2022
 - The state and county standard is 1 year grace period for an upgrade. The Ordinance grants a grace period of 5 years instead.
- Imminent Threat to Public Health and Safety (ITPHS) non-compliance must be upgraded within 10 months of the date of the inspection
 - This is the same as current county standard. No grace period for ITPHS systems.

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What if My System Was Found to be Non-Compliant?

▲ System must be upgraded:

- After December 31, 2022, all systems must be maintained in a "constant state of compliance".
 - Every three years for existing systems
 - Within 5 years for newly installed systems, then every three years after that.
 - Systems installed after 2011 probably won't need soils looked at again, so you won't get failed due to varying soil interpretations.

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FINDINGS

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INSPECTION OVERVIEW

- **359 total FRST properties**
- **157 were exempt (new system or recent inspection)**
- **202 were subject to FRST inspections**

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CURRENT CONDITIONS

Current ISTS of Inspected Properties:

System Style	Number	Percent
Subsurface Drainfield	123	61%
Holding Tank	27	14%
Cesspool or Drywell	24	12%
Mound	13	7%
Pre-treatment System	12	6%
Unknown	3	2%
TOTAL	202	100%

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CURRENT CONDITIONS

Current Compliance Status of Inspected Properties:

Compliance Status	Number	Percent
Compliant	117	58%
Failure to Protect Groundwater (FTPG)	71	35%
Imminent Threat to Public Health or Safety (ITPHS)	14	7%
TOTAL	202	100%

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CURRENT CONDITIONS

Current Compliance Status of All Properties:

Compliance Status	Number	Percent
Compliant	274	76%
Failure to Protect Groundwater (FTPG)	71	20%
Imminent Threat to Public Health or Safety (ITPHS)	14	4%
TOTAL	359	100%

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FUTURE ISTS OPTIONS

Likely Future ISTS For Inspected Properties:

SSTS Type	Number	Percent
Type 1 (standard system)	81	36%
Type 2 (holding tank)	22	22%
Type 3 or 4 (undersized or problem soil)	79	42%
TOTAL	202	100%

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FUTURE ISTS OPTIONS

Likely Future ISTS For All Properties:

SSTS Type	Number	Percent
Type 1 (standard system)	174	51%
Type 2 (holding tank)	56	16%
Type 3 or 4 (undersized or problem soil)	114	33%
TOTAL	359	100%

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COMPARE WITH GERMAN-JEFFERSON

A similar project was conducted in 2011-2012 around the German-Jefferson chain of lakes

Compliance Status	JGSIP (2012)	FRST (2018)
Compliant	54%	76%
Failure to Protect Groundwater (FTPG)	45%	20%
Imminent Threat to Public Health or Safety (ITPHS)	1%	4%

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COMPARE WITH GERMAN-JEFFERSON

- Soil verification prior to installation (since 2008)
 - Assures the system meets vertical separation requirements
 - State-wide, the vast majority of non-compliant systems are due to not meeting vertical separation
 - This is generally no longer an issue for systems installed after 2008
- Property transfer and shoreland rules
 - Require compliant septic system for transfer, sale, or pulling permits
- 157 properties (44%) had systems installed or inspected between 2011 and the start of the FRST project.

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SUMMARY

- A large majority of properties have compliant septic systems (76%)
- The remainder will be replaced or upgraded in the next 5 years
- 14 Imminent Threat systems were discovered and will be replaced or upgraded this year (or already have)
- 24 cesspool systems were identified and will be removed
- Nearly half of FRST properties received new systems or were certified as compliant between 2011 and 2017

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