

Summary of 2017 Subsurface Sewage Treatment Systems (SSTS) Program

Program Update

There are approximately **2670** rural properties served by septic systems in Nicollet County. The estimated compliance status at the end of 2017 consists of:

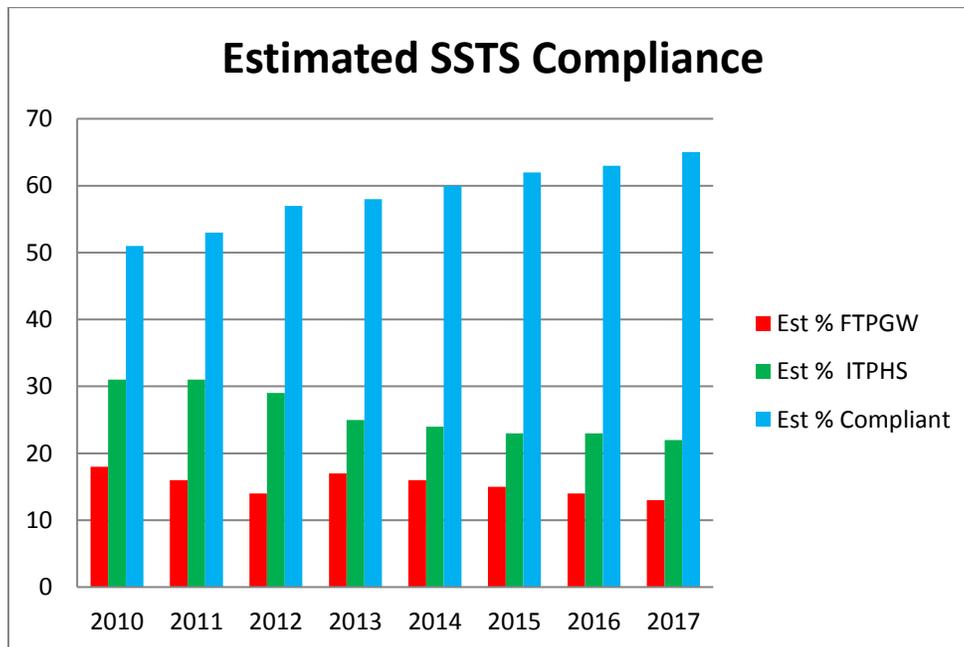
1730 systems (64.8%) have been installed under the prevailing code standards established in 1996 (if properly operated and maintained these systems should still be in compliance).

232 existing systems (8.6%) have a record of installation prior to 1996 and do not have a known status of compliance. Historically, most of these do not meet the required separation from seasonal ground water levels and would be noncompliant.

478 existing systems (17.9%) do not have a record of installation. Historically, systems like these have been proven by compliance inspection to either be an Imminent Threat to Public Health & Safety, or Failing to Protect Groundwater.

155 existing seasonal structures utilize unpermitted privy (outhouses). The majority of these systems will not be compliant if inspected.

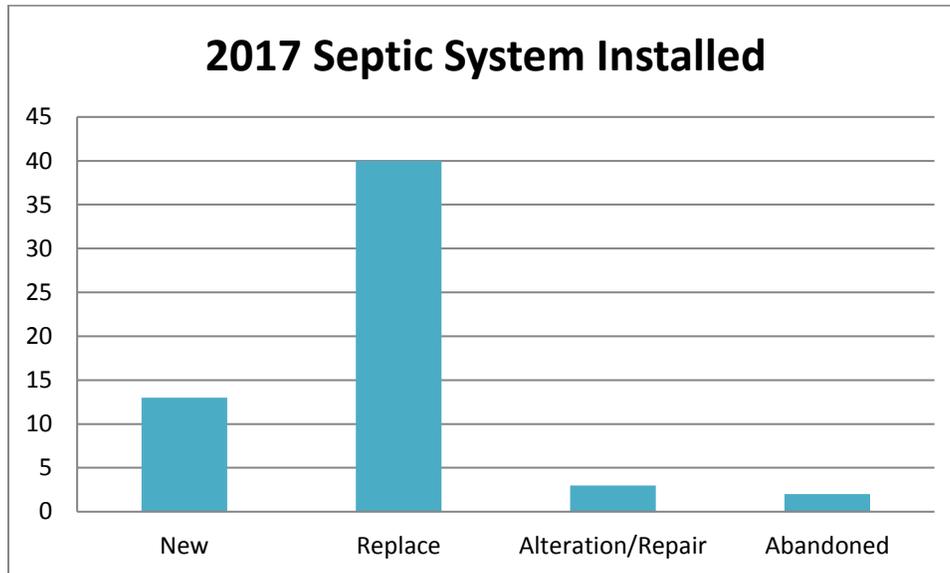
To address the noncompliance of systems throughout the county, compliance inspections are required when certain events occur on a property. The sale or transfer of a property, a permit issued in a shoreland area, any addition to a dwelling, for the issuance of a variance, or issuance of a conditional use permit require a compliance inspection. All of these mechanisms are to identify noncompliance and start the timeline to bring systems into compliance.



FTPGW = Failure to Protect Groundwater, ITPHS = Imminent Threat to Public Health & Safety

Summary of 2017 Installations

In 2017, 56 septic systems were installed; 13 (23.2%) for new construction, and 43 (76.8%) for upgrade or replacement on existing houses or businesses. 20 of the replaced systems were Imminent Threats to Public Health & Safety. 9 systems had additions or repairs done to them. 2 systems were removed from service and eliminated (titled by the State as “abandoned”).



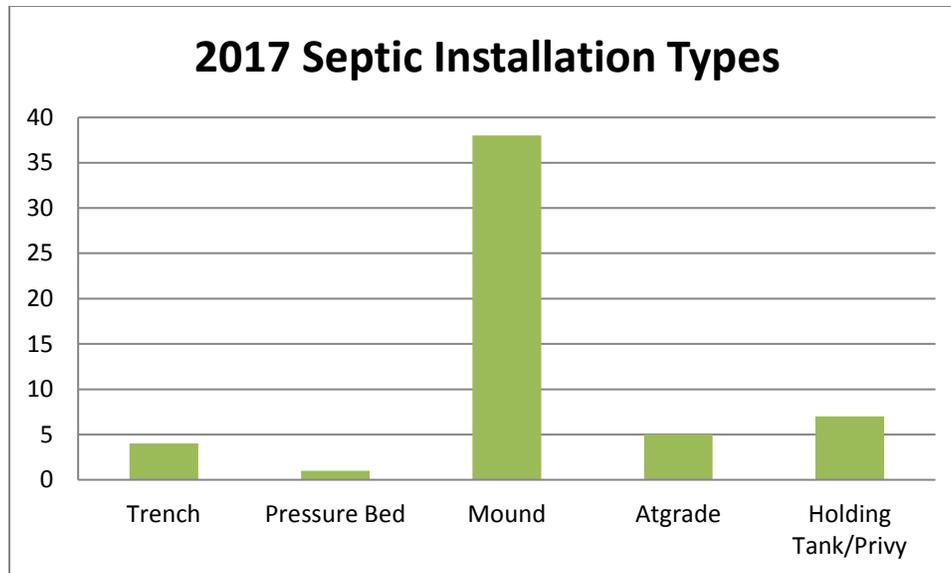
System Construction

2017 was a continuation of the previous two trying years for the installation of septic systems in the entire region. The continued wet pattern in the weather made installation extremely difficult. Systems were installed every possible time that the soil dried out. This was a slightly below average year of system installation.

There was the start of a possible disturbing trend of septic tank collapse. This is suspected due to two factors. One is age of the systems. Many systems in the County are over 25 years old. With a planned life span of most septic system around 30 years this is not unexpected. The other factor is microbial induced corrosion that is causing the concrete in the tanks to deteriorate more rapidly than anticipated. This is being explored nationally by the precast concrete industry for a solution if one exists. When age and rapid deterioration are combined, tanks collapse unexpectedly. This is a big inconvenience and a large expense to septic system owners.

The anticipation will be that there will be more systems that are in the 20 to 30 year range that will need to be repaired in the upcoming years. This may be tanks that fail or may be drainfields that are nearing the life expectancy of the system. There is definitely a correlation that the more maintenance and care give to a system the longer the life expectancy of the system is.

All systems installed are based on designs specific to each site. 52 site evaluations were done for systems that were installed or are planned for installation in 2018. The 2017 installations were comprised of: 6.9% Trench systems, 1.7% pressurized bed systems, 65.5% mound systems, 8.6% At-Grade systems, and 12.1% holding tanks. There were 8 systems installed that included nonresidential applications, 6 were holding tanks and 2 were connected to the residential system.



Loan Program Summary

The loan programs utilize money disbursed by the county from either county funds or from the state based on watershed areas with programs set up to upgrade septic systems. The state funding has timeframes for the use of the money. The programs have been well funded in the past but this funding source is not guaranteed to continue. The ability to have accessible funding can be key in having timely replacement of noncompliant systems. The programs seem underutilized, but many of the financial institutions require the replacement of systems before loaning money for the purchase of the house, thus replacing the system within the financial transaction of the purchase.

New for 2017 was the award of a low income fix up fund grant through the MPCA. This grant targets low income households and provides money toward the replacement installation of their septic system. This is a new program for the county. There are eligibility requirements that have to be met and if awarded, the money in this fund does not need to be repaid.

The current programs are summarized:

County Loan Program

\$20,000 was loaned out in 2017 on 2 systems. \$23,619.40 remains available with no encumbered money as of December 2017.

Middle Minnesota River Watershed Program

\$67,163 was loaned in 2017 on 8 systems. The program left a balance of \$155,185.80 to be used by April 4, 2018. This means there was usable funding through the 2017 construction season for this watershed. The program will be ended before the start of the 2018 construction season and the remaining balance will be not be utilized.

Rush River Watershed Program

\$10,000 was loaned out in 2017 on 1 system. The program did not utilize a balance of \$80,000 as the program ended September 12, 2017. There will be no additional money in this fund for the 2018 construction season.

Low Income Fix Up Fund Grant

The County applied for and was awarded a grant of \$25,000 to assist low income households replace their septic systems. One household utilized this fund in conjunction with funds from the Veterans Affairs program to install a complete septic system for the house. There is \$10,225 available for use within the next two and a half years to fix another low income household system.

Total Amount of Loan Money Disbursed since 1997:

Approximately \$2,390,765 has been disbursed for 342 systems.

Summary of Accomplishments

56 systems were installed and inspected in 2017. With this construction 43 Noncompliant systems were brought into compliance of which 20 were Imminent Threats to Public Health & Safety.

52 site evaluations/soil verifications were conducted prior to design approval of systems to be constructed.

12 septic systems were installed using Loan Funds bringing the total usage of the program to \$2,390,765 disbursed for 342 systems

76 compliance inspections were reviewed; 45 were compliant, 12 were Imminent Threats to Public Health & Safety, 5 were Failing to Protect Ground Water, and 14 results are pending inspection.

Every recording that transferred title in 2017 was evaluated with the aid of the access to the Recorder's software. Over 1450 records were looked at and 208 transactions required evaluation to determine if a compliance inspection was required for the septic system.