

Straight Pipe Septic Systems

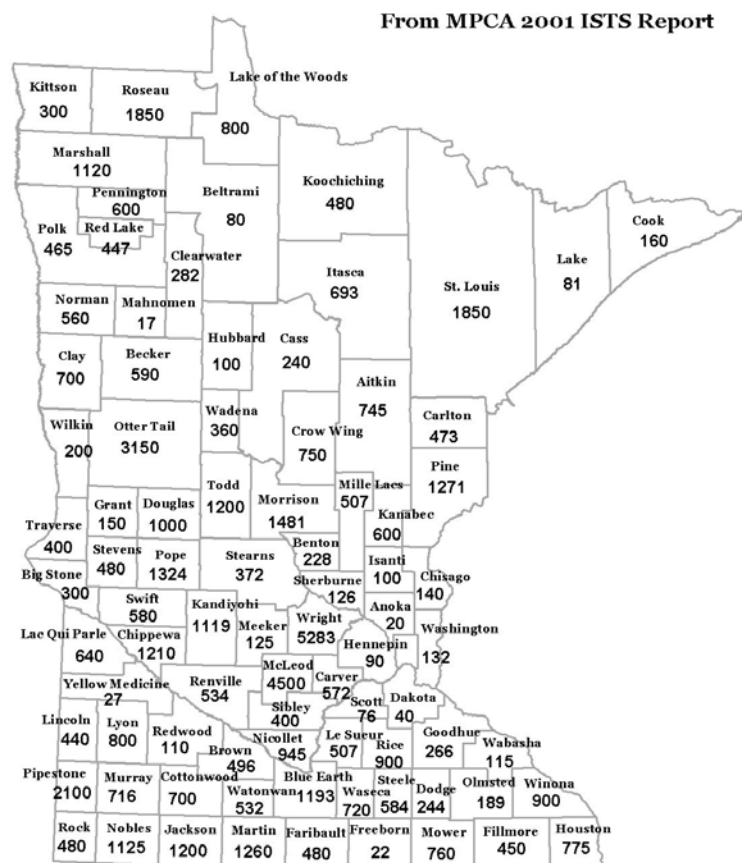
What are straight pipe septic systems?

Straight pipe septic systems are septic systems that do not treat the raw sewage deposited in them; the untreated sewage is ultimately sent directly to rivers, lakes, drain tiles, and ditches. Properly functioning individual sewage treatment systems (ISTs) typically treat sewage with a chemical, physical, and biological process, commonly using a septic tank and a soil treatment system.

How many straight pipe septic systems does the state have?

There are an estimated 60,000 straight pipe septic systems all over Minnesota. There is no statewide inventory of these straight pipe systems, but the number can be estimated based on county reporting to the Minnesota Pollution Control Agency (MPCA) (see map below). Although many are located in communities with less than 1,000 in population, there are some located in larger communities, such as Cross Lake in Crow Wing County, Ham Lake and East Bethel in Anoka County, Corcoran in Hennepin County, and Afton and Lakeland in Washington County.

Straight Pipe Septic Systems by County



What are the consequences for discharging raw sewage?

Sewage is wastewater from domestic activity such as cleaning, bathing, and cooking. Exposure to sewage through ingestion or bodily contact can cause disease, severe illness, and sometimes death. Sewage also contains small amounts of chemicals and phosphorous, which, if discharged to lakes, can cause excessive algae growth.

Straight pipe systems discharge an estimated 6.75 million gallons of raw sewage per day into Minnesota water bodies. This amount of raw sewage has about 5,000 times the concentration of fecal coliform bacteria as treated municipal waste (fecal coliform bacteria makes waters unsafe for swimming).

Are these systems legal?

These systems are not technically legal under either state or federal law. [Minnesota Statutes, sections 115.55 and 115.56](#), say that straight pipe discharge that has no soil treatment is an “imminent threat to public health” and when discovered, must be upgraded to acceptable standards within ten months.

The issue has not been addressed because (1) the state doesn’t know where these systems are and (2) state and federal funding hasn’t been adequate to address the overall problem. Some are concerned that homeowners will bear the main responsibility for fixing the problem and don’t have the necessary financial resources to do so.

What might it cost to fix the straight pipes?

A fully functioning septic tank system with adequate soil treatment can range from \$4,000 to as much as \$12,000, depending on design and location. An average of \$7,000 for each residential straight pipe fix would cost about \$420,000,000 total.

Homeowners with straight pipe systems do not pay anything for sewage treatment, while those that have adequate treatment systems pay an average annual cost of \$180.

What about sewage treatment systems that are failing?

In addition to the straight pipe pollution problem, the Pollution Control Agency (PCA) estimates there may be up to 140,000 ISTSs that are failing to function properly and need to be upgraded. The total cost to upgrade these systems to existing environmental and health standards could total close to a billion dollars (\$980,000,000).

Based on two requirements in [Laws 2003, chapter 128](#), article 1, sections 164 and 165, the PCA will submit a legislative report, including funding options, in February 2004 on a ten-year plan to (1) locate ISTSs that are imminent threats to public health and safety; (2) upgrade these systems; and (3) develop a process for ISTS maintenance compliance. The other part of the 2003 law establishes a pilot program with three cooperating counties that are impaired with fecal coliform bacteria. The program will attempt to remove ISTSs in the counties where they pose an imminent threat to public health and safety.

For more information: Contact legislative analyst John Helland at 651-296-5039.

The Research Department of the Minnesota House of Representatives is a nonpartisan office providing legislative, legal, and information services to the entire House.