

SepticSmart Program

Understanding the Problem



The *1998 and 2000 National Water Quality Inventory Reports to Congress* confirms that septic systems are the second most frequently cited source of groundwater contamination in our country (the first is leaking underground storage tanks). That's why counties across the nation are increasingly more concerned about the growing impact that unapproved, aging, and failing septic systems have on the quality and safety of our water supply.

In Boulder County, there are approximately 14,300 households that utilize septic systems (also known as onsite wastewater systems, or OWS) to treat and dispose of human and household waste. In essence, each one of these households is operating a wastewater treatment system in their backyards without any regulation or ongoing monitoring of the system's effectiveness.

Of the 14,300 septic systems, 4,700 (that's over 33%) have not been approved, as required by law; this means they have not been inspected by trained public health staff to ensure that the design and installation of the systems meet the specific requirements necessary to achieve effective treatment of wastewater.

Additionally, before septic systems reach 30 years of age, 80-90% will need repair – many will require repair much sooner than that. Relative to septic systems in Boulder County:

- 80% of the **unapproved** septic systems are older than 30 years, meaning they may already be in need of repair and are contaminating our groundwater.
- Nearly 33% of **permitted and approved** septic systems are over 30 years of age; another 22% are approaching 30 years.

Further compounding the problem, many households have increased the demand on their septic systems without upgrading the systems to meet the new demand. Examples of this include:

- Properties that have evolved from mining claims, to seasonal cabins, to year-round occupancy.
- Additions or improvements made to properties that necessitate upgrades or expansions to the septic systems.
- The planting of trees and high water-dependent vegetation on or directly adjacent to septic fields, which compromise the effectiveness of the systems.
- The use of septic fields as driveways or parking spaces, which will destroy portions of a septic field's infrastructure.

Even systems that have been permitted and approved will fail prematurely if inappropriate products are placed in them. This includes hazardous chemicals, medications, kitty litter, and other products that are not biodegradable. The failure to pump solids that accumulate in the septic tank will also eventually enter the leachfield or clog the lines and cause untreated wastewater to back up into the home, to surface on the ground, or to seep into groundwater.

Check. Permit. Update. Approve.

Decades ago, laws, rules, and regulations governing septic systems were developed throughout the United States to preserve and protect water supplies as a means of protecting public health. In Boulder County, the permitting, inspection, and approval of septic systems by trained Boulder County Public Health staff is the current mechanism for ensuring that new septic systems are properly designed and installed to treat human waste. ***However, the number of unapproved systems currently in use in Boulder County, the aging of all septic systems, and the absence of effective monitoring and education suggests that the risk to the quality of our water in Boulder County is growing and must be proactively addressed.***

These are the fundamental issues that will be addressed with the SepticSmart Program, and for which we are seeking ideas during the soon-to-be-announced public engagement process.

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