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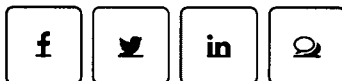
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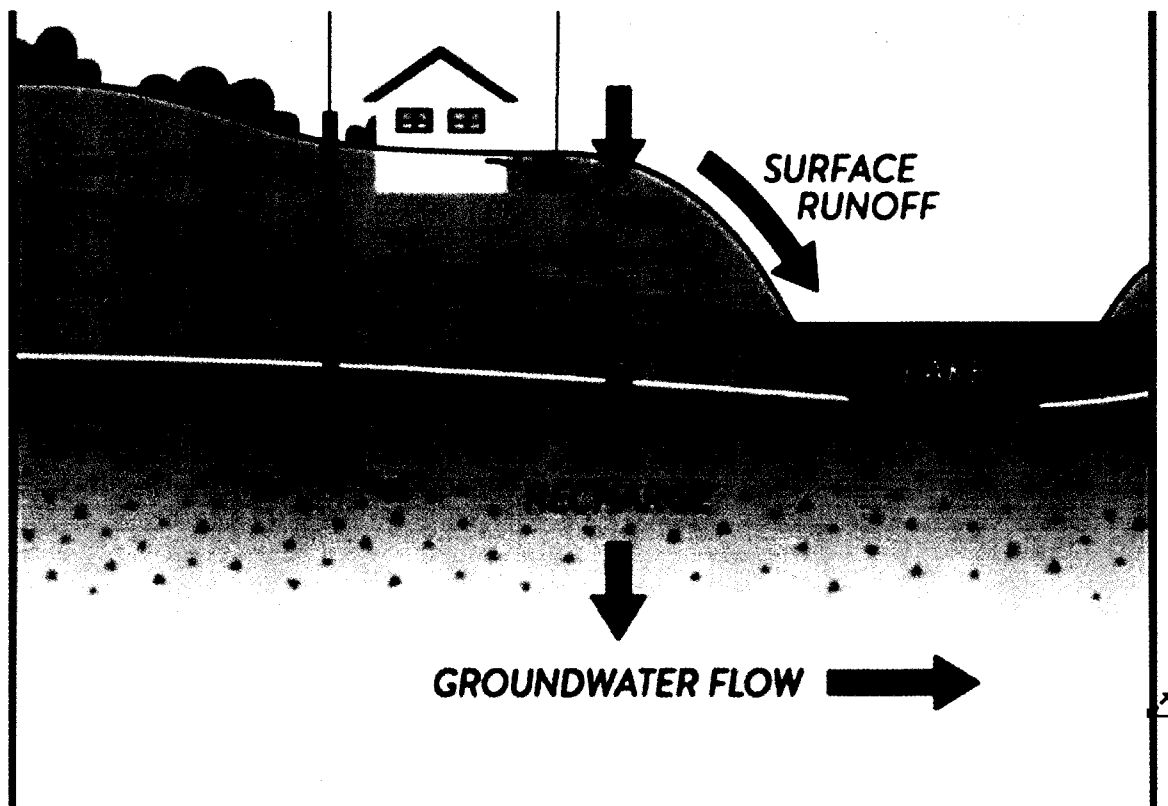


Online Exclusives Protecting Our Water With Good Septic Systems and Wells

# Protecting Our Water With Good Septic Systems and Wells

July 19, 2018





There is growing concern about new chemicals in our groundwater, drinking water, lakes, rivers and streams. These “chemicals of emerging concern” (CEC) include products we use every day around our homes including cleaning products, over the counter medicines and pharmaceuticals. These CECs are more likely to get into our drinking water if we do not have good septic or drinking water systems. When drinking water and onsite septic systems are constructed and maintained properly they can provide safe and reliable drinking water and wastewater treatment for decades. Drinking water systems fall into two general categories: (1) the well and (2) the distribution system. Another important element protecting drinking water is the area around the wellhead or the wellhead protection zone.

<b>Good Septic System</b>	<b>Good Drinking Water System</b>
<p><b>A good septic system has three key attributes:</b></p> <ol style="list-style-type: none"> <li>1. A watertight septic tank</li> <li>2. A soil treatment area – typically a drainfield or a mound with 3 feet of unsaturated soil before a limiting condition such as bedrock or periodically saturated soils</li> <li>3. Is properly operated and maintained</li> </ol> <p>Failing septic systems do not providing adequate treatment and are more likely to release pathogens along with CECs into the environment. These failing systems:</p> <ol style="list-style-type: none"> <li>1. Cause sewage to back up in the home or come to the surface</li> <li>2. Have non-watertight tanks including cracked tanks, seepage pits and drywells</li> <li>3. Do not have the required separation to the limiting condition (bedrock or water table)</li> </ol>	<p><b>Key attributes of a good drinking water system:</b></p> <ol style="list-style-type: none"> <li>1. Properly constructed and maintained well</li> <li>2. Properly installed and maintained distribution system (water treatment devices, water lines and fixtures)</li> <li>3. Backflow protection of cross connections</li> <li>4. Managed and maintained setbacks of contaminates from the wellhead</li> </ol> <p>Drinking water systems that pose a risk to health:</p> <ol style="list-style-type: none"> <li>1. Wells in pits</li> <li>2. Shallow uncased wells</li> <li>3. Unused wells that are not sealed</li> <li>4. Wellheads with damaged casing and electrical conduit</li> <li>5. Unprotected cross connections of water lines and potential sources of contamination</li> <li>6. Leaking/dripping fixtures and pipes</li> <li>7. Potential sources of contamination stored and unmanaged close to the well</li> </ol>

## What can you do to protect our water?

Make sure customers know their septic and drinking water systems are operating properly by having them inspected and maintained on a regular basis. Just like other infrastructure around a home or business, systems need regular maintenance and eventual replacement. Effective operation saves money and assures protection of our water resources. Here are some checklists you can provide to your customers.

Septic System Operation and Maintenance	Drinking Water Operation and Maintenance
<ol style="list-style-type: none"> <li>1. Have septic tanks evaluated and cleaned as needed at least every 3 years. Assure that the septic tank is cleaned through a large (great than 20 inches) manhole.</li> <li>2. Annually walk the drainfield area to assure proper operation.</li> <li>3. Avoid compaction of the soil treatment area. Compaction makes septic systems more prone to freezing and failure due to a lack of pore space and oxygen. Maintain healthy vegetation (no irrigation or fertilizer needed).</li> <li>4. Be mindful of how much and when you use water. Your system should not be loaded at more than 70 percent of its peak design flow and in general, you water usage should be spread out throughout the day and week. Repair (or replace) leaking faucets and toilets.</li> <li>5. Do not treat your toilet like a garbage can. Only human waste and toilet paper should go down the drain. No wipes, feminine products, cotton balls, etc.</li> <li>6. Use the smallest amounts of cleaners and chemical and choose the most natural ones possible. Consider choosing products with a grade of "A" by the Environmental working group: <a href="https://www.ewg.org">https://www.ewg.org</a>. Do not use antibacterial products as they kill the good bacteria too.</li> <li>7. Properly dispose of hazardous waste and unused medicines through local take back programs available through many counties, law enforcement agencies or pharmacies.</li> <li>8. Do not use septic tank additives.</li> </ol>	<ol style="list-style-type: none"> <li>1. Test your water                     <ul style="list-style-type: none"> <li>• Annually for coliform bacteria</li> <li>• Every 2–3 years for:                             <ul style="list-style-type: none"> <li>○ Nitrates</li> <li>○ Arsenic</li> <li>○ Lead</li> <li>○ Manganese</li> </ul> </li> </ul> </li> <li>2. Inspect your wellhead                     <ul style="list-style-type: none"> <li>• Well cap and screen intact</li> <li>• Electrical conduit seal intact</li> <li>• Casing intact</li> </ul> </li> <li>3. Protect your well                     <ul style="list-style-type: none"> <li>• Keep contaminants away from your well.</li> <li>• Minimized use of contaminants/fertilizer near the well.</li> </ul> </li> <li>4. Seal unused wells.</li> <li>5. Maintain water treatment devices.</li> <li>6. Check for leaks and drips.</li> </ol>



**Related:** [Tank Troubleshooting: Checking Inlet and Outlet Baffles](#)

Private drinking-water and septic systems are critical to public health and the environment. Sometimes these important systems are forgotten when getting a glass of water or flushing the toilet. However, with proper attention and regular maintenance, the drinking-water and septic systems will provide years of operation while helping to protect health and our water resources. Encourage your customers to consult a local licensed septic system or well professional if are having any problems or issues.

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