



## INJECTION vs. SEWAGE SYSTEM DISPOSAL

Milestone Industrial™ is your single source for efficient and responsible waste management. Our solutions include deep well injection – a clean and safe approach that is proven and preferred for its environmental benefits. **Here's how our solution stacks up against sewage system disposal.**

	Deep Well Injection Disposal	Sewage System Disposal
<b>Overall Assessment</b>	Class I underground injection has been identified by the EPA as an effective disposal method with a lower potential for environmental release when compared to other disposal options. <sup>1</sup>	Sewage system disposal is subject to municipal wastewater treatment standards and aging sewer infrastructure, with increased exposure to environmental risk.
<b>Environmental Impacts</b>	Waste is contained deep underground below impermeable rock layers that prevent contamination of drinking water, soil, and surface water, minimizing ecosystem risks.	If not properly pre-treated, harmful chemicals and heavy metals can enter the environment through the treated effluent, potentially harming aquatic life.
<b>Human Health Impacts</b>	Studies by the University of Miami and the EPA (2000, 2001) suggest that, due to the secure isolation of wastewater, injection wells have the least potential for impact on human health when compared to ocean and surface discharges. <sup>2</sup>	If not properly treated, wastewater can introduce toxins, heavy metals, pathogens, or other contaminants to the water supply, potentially causing gastrointestinal diseases, respiratory problems, or other illnesses.
<b>Containment Reliability</b>	Injected into a thoroughly assessed, impermeable geological formation far below drinking water aquifers, the waste is permanently isolated, ensuring long-term containment while minimizing future risk and liability.	Discharge of industrial wastewater utilizes aging sewer infrastructure that is prone to leaks, backups, and overflows. Final containment relies on surface water discharge, increasing exposure and liability.
<b>Regulations</b>	The EPA's Underground Injection Control program is regulated under the Safe Drinking Water Act. Operators must obtain permits, conduct geologic studies, monitor continuously, and comply with strict reporting requirements to prevent contamination of underground water sources.	Sewage disposal is governed by local pre-treatment programs and NPDES standards, though regulatory enforcement and infrastructure quality can vary significantly. Oversight often focuses on effluent characteristics, not long-term containment or downstream liability.
<b>Monitoring and Reporting</b>	Subject to rigorous EPA oversight, deep well injection requires continuous monitoring, mechanical integrity testing, and detailed reporting to ensure permanent containment. The process offers full traceability and long-term compliance assurance.	Monitoring is typically limited to periodic sampling and reporting under local pre-treatment programs, with oversight and enforcement varying by municipality. Once discharged, there is little visibility or control over the waste's final treatment or environmental impact.

<sup>1</sup> SOURCE: [Interim Guidance on the Destruction and Disposal of Perfluoroalkyl and Polyfluoroalkyl Substances and Materials Containing Perfluoroalkyl and Polyfluoroalkyl Substances](#)

<sup>2</sup> SOURCE: [Wastewater Deep Injection Wells for Wastewater Disposal – Industries Tap a Unique Resource](#)