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UV Disinfection in 2025: A Key Issue for Municipalities

As protecting drinking water sources and sensitive environments remains a priority in Québec, ultraviolet (UV) disinfection is back in the municipal spotlight. While it is an effective and proven technology, it is nonetheless governed by a strict framework that makes municipalities a central part of the process.

When it comes to protecting drinking water while contending with municipal realities, UV disinfection is a comprehensive and sustainable solution... provided it is managed properly.

From no rules to a strict framework

Before 1981, each municipality managed septic systems in its own way. The adoption of Q-2, r. 8 marked a first step towards standardization, followed in 2002 by Q-2, r. 22, which introduced requirements for secondary and tertiary systems.

That's when UV technology came along. However, a ministerial moratorium was introduced in 2005, halting its use due to concerns about maintenance issues. Since 2006, it has been possible to use it, but only in municipalities that monitor it.

Municipalities at the heart of the process

To date, more than 375 municipalities in Québec have adopted by-laws allowing the installation of UV systems. Section 87.14.1 of Q-2, r. 22 is clear: no by-law, no UV.

This gives municipalities a central role: they become responsible for maintenance and monitoring, guaranteeing system performance and protecting sensitive environments.

Bionest is there to support them, as well as owners, throughout the entire process of installing, maintaining, and monitoring UV systems.

When UV becomes essential

Although UV disinfection is not always necessary, it becomes indispensable in certain contexts:

- Steep slopes
- Narrow or densely built lots
- Existing septic systems that limit options
- Impermeable soil where infiltration is not possible

In these cases, UV acts as an additional barrier against pathogenic microorganisms, protecting public health.

Shared responsibilities

The municipality's supervision does not relieve owners of their obligations. They must:

- Maintain an annual maintenance contract
- Provide semi-annual analysis reports on effluent quality
- Keep results for five years

Manufacturers, for their part, must provide the municipality with information on each installation and maintenance procedure.

Meeting real needs

In Québec, there are numerous tangible pressures at play: narrow plots, challenging soils, and proximity to bodies of water. In such situations, UV disinfection is often the only way to reconcile residential development with environmental protection.

Today's technologies are robust, reliable, and better supervised than twenty years ago. They help ensure that discharges are both compliant and sustainable.

Conclusion

In 2025, UV disinfection is no longer experimental: it's a proven technology. However, its implementation depends on striking the right balance between provincial regulations, municipal oversight, owner responsibilities, and manufacturer follow-up.

The question for municipalities is no longer whether it is effective, but how best to integrate it into their local area. The needs are there, the solutions exist, and protecting drinking water remains a shared responsibility. Bionest supports everyone involved in the process, simplifying it and ensuring installed UV systems can operate successfully.