

municipality secures safe drinking water

Product: aquasource* Z-XS, 3 modules
Application: Drinking water
Capacity: 220 m³ /day
Commissioned: 2016
Location: Ouhans, France

challenge

The village of Ouhans in France uses the Loue spring as the source of their drinking water supply. Because of the karstic underground nature, the water is subject to high peaks of turbidity during rainy periods, and chlorination alone did not guarantee compliance with drinking water regulations. Specifically, the suspended solids and bacteriological content.

Concerned with the health of its inhabitants, the municipality wanted to find the best solution that would provide consistent safe drinking water for the population.

solution

SUEZ recommended the aquasource Z-XS ultrafiltration (UF) system equipped with 3 modules of 60 m². This compact and autonomous water treatment unit can host 1 to 4 membrane modules and is ideal for treating up to 350 m³/d water.



Figure 1: Granular Activated Carbon

A granular activated carbon filter (Figure 1) was also installed upstream of the Z-XS system because of the organic matter and pesticides. The ultrafiltration would then act as a physical barrier to the microbiological contaminants that can develop in the GAC filter.



Figure 2: Raw water tanks (left) beside the aquasource Z-XS unit (right)

Guaranteed performance for the solution:

- Constant high-quality water: <0.1 NTU, regardless of water source
- Physical barrier against pathogens: bacteria, viruses and cyst
- Removal of organic matter including pesticides

results

The municipality currently exceeds the French drinking water standard (UF<0.1 NTU) regardless of changes in the inlet water quality. Turbidity, organic matter, pesticides, and bacteria are effectively removed through the combination of the technologies SUEZ implemented.

Featuring advanced automation, the aquasource Z-XS manages both raw water and UF water tanks, with the GAC filter. The UF system can start and stop according to the water level information provided by the float switches connected to the PLC. The unit also communicates with the activated carbon tank and controls its operation with an extra electrical cabinet and external pump.

The implementation of the aquasource Z-XS combined with the GAC filter allows the municipality of Ouhans to guarantee its inhabitants with compliant safe and clean water as well as improved color, odor and taste while optimizing its water treatment facility.

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