

The Company uses state-of-the-art water treatment and quality control procedures to supply the best quality water to over 6 million users

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## Canal de Isabel II Ensures Drinking Water Quality for the Region

- Tap water in the Madrid Region is of excellent quality and comfortably meets all legal requirements.
- *Canal* carries out more than 9 million analyses each year to continuously ensure tap water quality.
- Disinfection using chloramines, which *Canal* has been using for over 50 years, minimises generation of trihalomethanes.

**16JAN2020** – Canal de Isabel II guarantees the quality of the tap water in the Madrid Region by using state-of-the-art purification treatments and a strict monitoring programme, including over 9 million analyses of the region's tap water every year.

*Canal* has a complete treatment system that ensures top quality water supplies for its over 6 million customers every day. This system is designed to suit the characteristics of the water that *Canal* collects from its reservoirs in the Madrid Mountains and the network it operates to distribute it, after treatment, throughout the Region (nearly 18,000 kilometres long).

This system enables the Company to minimise organic matter in water using oxidation processes with ozone and filtration through active carbon. It also uses chloramines to ensure disinfection throughout the network and reduce generation of by-products, such as trihalomethanes.

Canal de Isabel II has used a disinfection system based on combined chlorine since the construction of its first drinking water treatment plants, in the late 1960s: chloramines are compounds that stay in the distribution network longer and also lead to less formation of trihalomethanes and other disinfection by-products.

### **CHLORAMINES: GUARANTEE OF DRINKING WATER DISINFECTION AND QUALITY**

Chloramines are compounds formed by the reaction of dissolved chlorine with ammonia. They have many benefits: One is that they are more stable than chlorine, so they last longer and ensure water disinfection throughout long distribution networks,

such as those in the Madrid Region. But they also offer a clear advantage in that they minimise the generation of trihalomethanes: These are by-products that form when free chlorine and organic matter are present in treated water. Chloramines, by avoiding free chlorine, significantly reduce the presence of trihalomethanes in water: This means that trihalomethane levels in Madrid's water are nearly 80% lower than the limits set under current legislation.

As well as applying all these treatments, Canal de Isabel II has a strict monitoring programme from the source of supply through to the consumer's tap, to ensure it's always healthy to drink. Each year, 16 laboratories and 52 automatic monitoring stations connected to the company's remote-control systems carry out more than 9 million analyses. These monitor 60 different parameters such as chlorine, pH, conductivity and turbidity so that any anomaly in the quality of the drinking water is detected immediately.