LOCAL CHALLENGE PROJECT 2020: Accelerating the SDGs

LEGIONELLA PNEUMOPHILA INCIDENCE IN MUNICIPAL WATER SYSTEMS

Project Overview
With this project, the Municipality of Lisbon inventoried water elements, sprinkler irrigation systems in public gardens and other green infrastructures, as well as other equipment under municipal management, in order to centralize information and define a water quality monitoring program based on the criteria of priority levels of water supply. As a result, all ornamental water sites (fountains, monuments, etc.) and climate adaptation structures were identified and integrated in a database to support a pilot project. This project aims to assess recreational, ornamental and irrigation water quality in Lisbon, specifically to evaluate the presence of Legionella pneumophila in these water systems. This step is one of the different ongoing actions related to the water cycle and sustainability, a key aspect of the Lisbon Municipality policy, understood as an environmental commitment to improve life quality, good health and well-being for people who live, work, circulate, visit, study and invest in Lisbon - an environmentally friendly and climate resilient city. This project is at an early stage, already with some results for chemical and microbiological water quality indicators.

Project Process
- Over 300 points were selected for water quality monitoring, including recreational, ornamental and irrigation systems.
- Legionella pneumophila Incidence is assessed, as well as other physical, chemical and microbial indicators.
- Immediate mitigation measures are engaged according to results, and necessary preventive measures are adopted.

Community engagement
Nowadays water is understood as a limited resource and as such, investing in sustainable water cycle strategies is a key priority of the Lisbon Municipality - naturally involving the society to take part in this resilience process. Investing in water quality resources is an ongoing strategy, with actions in terms of public health risks mitigation for all citizens and providing a free public service with guaranteed quality, as water is a key element to maintain excellent life quality in the city.

Project Impact and Outcomes
With the obtained results, a better management of public health risks is possible, specifically by identifying and preventing the proliferation of pathogenic agents like Legionella pneumophila in recreational, ornamental and irrigation water systems.