

<b>C.3</b>	<b>Optimization and management of water losses</b>
<b>Blended learning training session</b>	<b>2 days face-to-face</b> <b>2 days e-learning</b> <b>1<sup>ST</sup> and 2<sup>nd</sup> March 2021</b>

▪ **OBJECTIVE:**

Implement a policy for their control and reduction.

Assimilate that the issue of water losses does not only concern the search for and repair of leaks, but that it is linked to all the activities of a water service.

▪ **CONTENT:**

Reducing Water Losses: Issue and Strategy, Water Balance.

Actual Losses: Diagnosis, Indicators, Methods and Tools, Action Plan, Case Studies.

Apparent Losses: Diagnosis, Indicators, Methods and Tools, Action Plan, Case Studies. Strategy, Action Plan and Change Management

▪ **ACQUIRED SKILLS:**

Understanding of the phenomenon of water losses (real or apparent) and their dynamics Understanding of the impact of the various activities of the company on the level of water losses

Establishing a diagnosis on water losses (and hydraulic balance).

Define a strategy to reduce water losses.

Establish an action plan to reduce water losses.

Monitoring the implementation of an action plan

Condition for the sustainability of the results of an action plan, change management

▪ **E-LEARNING:**

Identify water losses

Measure unbilled water volumes. Break them down by cause.

Deduct the corresponding financial loss.

Develop a strategy for real and apparent losses.

▪ **RECOMMENDED READINGS:**

Farley M, Trow S (2003) Losses in Water Distribution Networks, A Practitioner's Guide to Assessment, Monitoring and Control. IWA Publishing

Alegre H, Baptista JM, Cabrera Jr. E, Cubillo F, Duarte P, Merkel W, Parena R (2006) Performance Indicators for Water Supply Services (Second Edition). IWA publishing

Arregui F, Cabrera E, Cobacho R, (2006) Integrated Water Meter Management. IWA Publishing

Johnson EH (2) (2009) Management of Non-revenue and Revenue Water Data. 2nd Edition. Engineers Media. NSW Australia

IWA (2007) District Metered Areas – Guidance Notes -

IWA (2007) Leak Location and repair – Guidance Notes

Moreau (2004) Pressure Modulation, a simple tool to reduce leakage and protect water distribution network

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