# **GWF BALANCE**

Understand your water network, reduce leakage, and prioritize investments



Ask for our co-financing options



Innovative solutions for valuable resources



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# What GWF BALANCE delivers for you

### Leakage reduction of 35% on average

You benefit from actionable data that we translate in recommendations for immediate implementation in your water network.

Prioritization of leak-related infrastructure investments You receive clear recommendations for short-, mid-, and longterm investments in the optimization of your water network.

Benchmarking against Infrastructure Condition Index You receive a benchmarkable score for your DMA network health and dominant infrastructure weak points.

### Impact control through re-testing against baseline

You receive a clear baseline for the state of your water network. The analysis can be reperformed to track progress.









# **"GWF BALANCE** is a unique decision support system that leads to immediate results."

Mark Shepherd Senior Expert GWF BALANCE



### How we deliver GWF BALANCE

### Highest quality sensor technologies

We have a 125-year reputation as technology leader for measurement instruments. In our GWF BALANCE programs, we work with our own latest technologies and technologies from other leading manufacturers.



### Know-how and AI based data platform

We have developed a simple to use and yet data-rich platform for data collection and visualization. We help you with scenario planning and getting the right people to the right place at the right time to do the right thing.



#### Knowledge transfer by experts

Our leakage experts equip your team with latest insights on Non-Revenue-Water and network hydraulics. We work with you to ensure that our recommendations are translated into action.



### Impact case studies

**South West Water** was founded in 1989 and looks after the water and wastewater services for 1.8 million customers across Cornwall, Devon, the Isles of Scilly and parts of Dorset and Somerset. As one of the industry leading utilities in the United Kingdom, South West Water uses innovative solutions to continuosly enhance the service experience for its customers.

South West Water

#### Understanding Customer Side Leakage

South West Water assumed that approximately 30% of their water leakages are related to Customer Side Leakage (CSL). GWF was tasked to analyze CSL and help prioritize investment decisions for its optimization. Based on existing DMA data, the GWF BALANCE project delivered:

- Fast insights: Complete overview of 1,153 DMAs with a total of 1,976,943 service connections within two weeks
- Data integrity confidence: Identification of data anomalies in both billing data and existing leakage calculations
- Deep insights in leakage volume: Accurate CSL calculation (95% confidence) and detailed split in CSL and network leakage
- Intervention prioritization: Ranking of DMAs for execution of Smart Meter Roll-out

# "GWF BALANCE has helped us prioritise our leakage reduction programme and indicated where additional savings can be achieved with a high level of confidence"

Reagan Hawkins Water Loss Strategy & Projects Manager South West Water

#### Immediate leakage reduction in times of drought

South West Water was subject to severe droughts in 2022/23. GWF was tasked to analyze the water network and identify interventions for immediate leakage reduction through pressure management. With only three data points per District Metered Area (DMA), the GWF BALANCE project delivered:

- Deep water network understanding
- Benchmarking of DMAs for intervention prioritization
- Advanced leak analysis: Precise and accurate calculation of fixed and variable area leakage
- Predictive modeling: Value-based analysis of available interventions for leakage reduction
- Immediate savings: Pressure adjustments through PRV optimization resulted in immediate 30% of leakage reduction
- Investment prioritization: Additional interventions (e.g., fixing leaks) resulted in another 24% of leakage reduction
- Immediate payback: The investment in GWF BALANCE and the entire program paid back in less than 8 months
- Footprint optimization: Program resulted approximately 160,000 m3 per year of water savings and >100 ton CO2 emission reduction



Clearly prioritized zones for selected interventions.



GWF BALANCE requires three data points per zone. Our service engineers can help to determine the location of sensors together with your team.

# Indicative GWF BALANCE project implementation

Task	Wk1	Wk2	Wk3	Wk4	Wk5	Wk6	Wk7	Wk8	
Project handhover									Definition of scope
Task #1: Information									Identification of potential zone candidates Early engagement with Fire Department
Task #2*: Site Visit									<ul> <li>Check zone suitability</li> <li>Identify measurement points</li> <li>Identify measurement equipment required</li> <li>Identify any installation requirements</li> </ul>
Task #3*: Installation									Commissioning of measurement equipment Testing of communication infrastructure
Task #4*: Measurement									7-14 days of flow and pressure management
Task #5*: Test									Determine day, time and pressure drop for test Perform off-peak pressure step test Generate flow and pressure profiles from pressure step test
Task #6: BALANCE									Full balance analytics and impact determination
Task #7: Recommendation									Prioritized scope of leakage reduction volume activities including economic analysis
Task #8*: Implementation									Implementation of recommendation
Task #9: Validation									Validation of impact against baseline and recommendations
Project close-out									Handover of final report

\*Tasks #2, #3, #4, #5, and #8 require customer involvement. Please ensure access to resources to support implementation.

## Ask our team

Our team have decades of experience in the water sector and are more than happy to talk with you about our innovative solutions for your water network. We frequently host water network related events and virtual meetings. Please reach out for more details.



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