



## Water Stewardship Report 2023



Sustainability has always been a fundamental pillar of Gruppo Hera's business strategy throughout all its operations, with the aim of creating and promoting a shared value. This approach is consolidated through the implementation of activities and projects that respond to the "call to action" of the UN Global Agenda for 2030 for the efficient use of resources such as sustainable water management.

As manager of the Integrated Water Services, Gruppo Hera has been committed for several years to support and promote national and international initiatives that aim to protect water resources. Not only is Gruppo Hera a participant in the CEO Water Mandate as an Endorsing Company, but also the first multi-utility in Italy to have joined the Ellen MacArthur Foundation. Gruppo Hera is also an active, promoting member of the Circular Economy Network and the Italian Circular Economy Stakeholder Platform.

In order to consolidate its commitment to water stewardship and encourage a diffused, responsible use of water in the local territory, Gruppo Hera has chosen to undergo the **Alliance for Water Stewardship (AWS) Certification** journey by implementing and promoting the **five AWS Outcomes**:

- **good water governance**
- **sustainable water balance**
- **good water quality status**
- **protection of Important Water-Related Areas (IWRA)**
- **provision of safe water, sanitation and hygiene for all (WASH)**

The site undergoing Certification is that of the Val di Setta potabilization plant of Sasso Marconi (BO), which services the Primary Aqueduct network of Bologna. The Implementation of the AWS Certification aims at reducing the site's water footprint in the catchment area by **improving and continuously adapting water-related mitigation actions and strategies in order to achieve resilient and responsive solutions to face the current and future water availability scenarios**.

Becoming more resilient means establishing concrete business strategies and actions in order to implement and disclose amongst local stakeholders a water management system that aims in increasing efficiency and optimize water savings in daily consumptions.

**Active engagements amongst key stakeholders is strategic and necessary in order to communicate the AWS philosophy and share best practice solutions with the catchment territory. The aim is to collaborate with local stakeholders and work together in a transparent and proactive way towards a common water stewardship goal.**

Gruppo Hera's commitment to safeguarding the water resource and the environment are furthermore highlighted by continuous collaborations with local authorities for watershed governance strategies and sustainability plans, as well as their full compliance to National and Regional regulatory requirements.

**The implementation and consolidation of the AWS Standard will allow the Val di Setta potabilization plant to become a certified water steward, committed to perform sustainable water-related management practices and promote collaboration engagements with local catchment stakeholders, directly or indirectly dependent on the same potable water resources.**

Gruppo Hera's water stewardship journey will be achieved over time, by applying all the necessary organizational capacities to consolidate a multi-disciplinary process that includes not only the implementation of best-practice actions but also performance evaluations and improvements, which involve both the site and the surrounding territory. Certification obtainment will therefore require full commitment from all of Gruppo Hera's company structures that will, however, work together united in an alliance towards the AWS milestone.





## Water Stewardship Report 2023



GOOD WATER  
GOVERNANCE



SUSTAINABLE  
WATER  
BALANCE

### Optimization of the filtration compartment in the Val di Setta Plant

A test phase carried out on the **sand filtration** compartment has optimized the backwashing phases, reducing their duration and number.

Testing the **concentration of Total Suspended Solids** (SST – *Solidi Sospesi Totali*) allowed the reduction of the overall cycle by approximately 5 minutes, decreasing consequently the water flow rate required without affecting the backwash accuracy.



**Water saving in 2021 -> 2.700.000 m<sup>3</sup>**

**Water saving in 2022 -> 2.900.000 m<sup>3</sup>**

### Setta Stream water withdrawal structure renewal

Every year, Gruppo Hera executes **numerous investments** in the Integrated Water Service network.

The main development and restoration activities for 2022, included the **renewal of the Setta Stream water withdrawal structure**. This activity aims to optimize raw water withdrawals and the maintenance of the minimum vital flow (DMV – *Deflusso Minimo Vitale*) of the Setta Stream.



GOOD WATER  
GOVERNANCE



SUSTAINABLE  
WATER  
BALANCE



GOOD WATER  
QUALITY  
STATUS

**2022 -> Completion of the Val di Setta water withdrawal structure renewal**





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GOVERNANCE



SUSTAINABLE  
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### Together with our users for water protection

The tool named **Dairy of Consumption** (*Diario dei Consumi*) has been extremely useful during the years to create greater awareness amongst private users on their domestic water consumption.

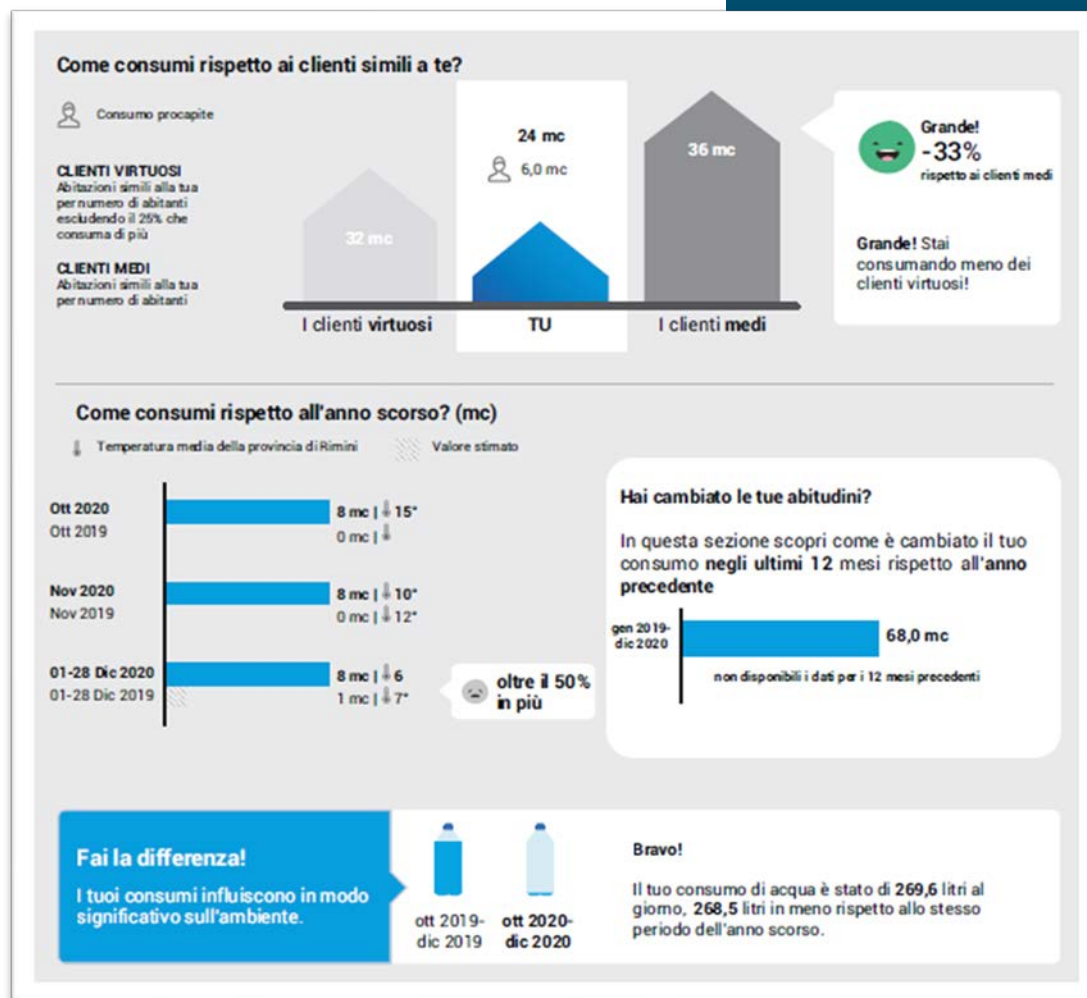
Every two months, private users receive a dedicated **report** which allows them to **monitor their water consumption**.

Through histograms and graphs, the report compares the user's water consumption habits, with those of average and/or more virtuous users. The report also provides valuable tips and tricks to implement water saving actions at home.

**Engaged users in 2020 -> 145.000**

**Engaged users in 2021 -> 200.000**

**Engaged users in 2022 -> 260.000**



GOOD WATER  
GOVERNANCE



SUSTAINABLE  
WATER  
BALANCE

### Water saving in Gruppo Hera

From 2019 onwards, Gruppo Hera has defined targets and long-term objects to **reduce** its **potable water consumption** across all operations - water, waste and energy.

For this purpose, many projects have been implemented and planned. For example, **process optimization**, **construction of new plant sections for water reuse and rainwater harvesting**.

**Water saving in 2019 -> 79.000 m<sup>3</sup> (5% vs 2017 consumptions)**

**Water saving in 2020 -> 182.000 m<sup>3</sup> (12% vs 2017 consumptions)**

**Water saving in 2021 -> 255.000 m<sup>3</sup> (16,6 % vs 2017 consumptions)**

**Water saving in 2022 -> 315.000 m<sup>3</sup> (20,5 % vs 2017 consumptions)**





## Water Stewardship Report 2023



GOOD WATER  
GOVERNANCE



SUSTAINABLE  
WATER  
BALANCE



GOOD WATER  
QUALITY  
STATUS

### Water fingerprint in the Val di Setta Potabilization Plant

A **UV-VIS spectrophotometer** was installed for the screening of the incoming raw waters.

Via the use of a sophisticated algorithm, a unique and characteristic fingerprint of the water is created.

The scope is to constantly compare the incoming raw water samples with the previously generated fingerprint.

This methodology creates an **early warning systems** in case of any anomalies and/or discrepancies from the water fingerprint.



## Innovation and digitisation for system resilience



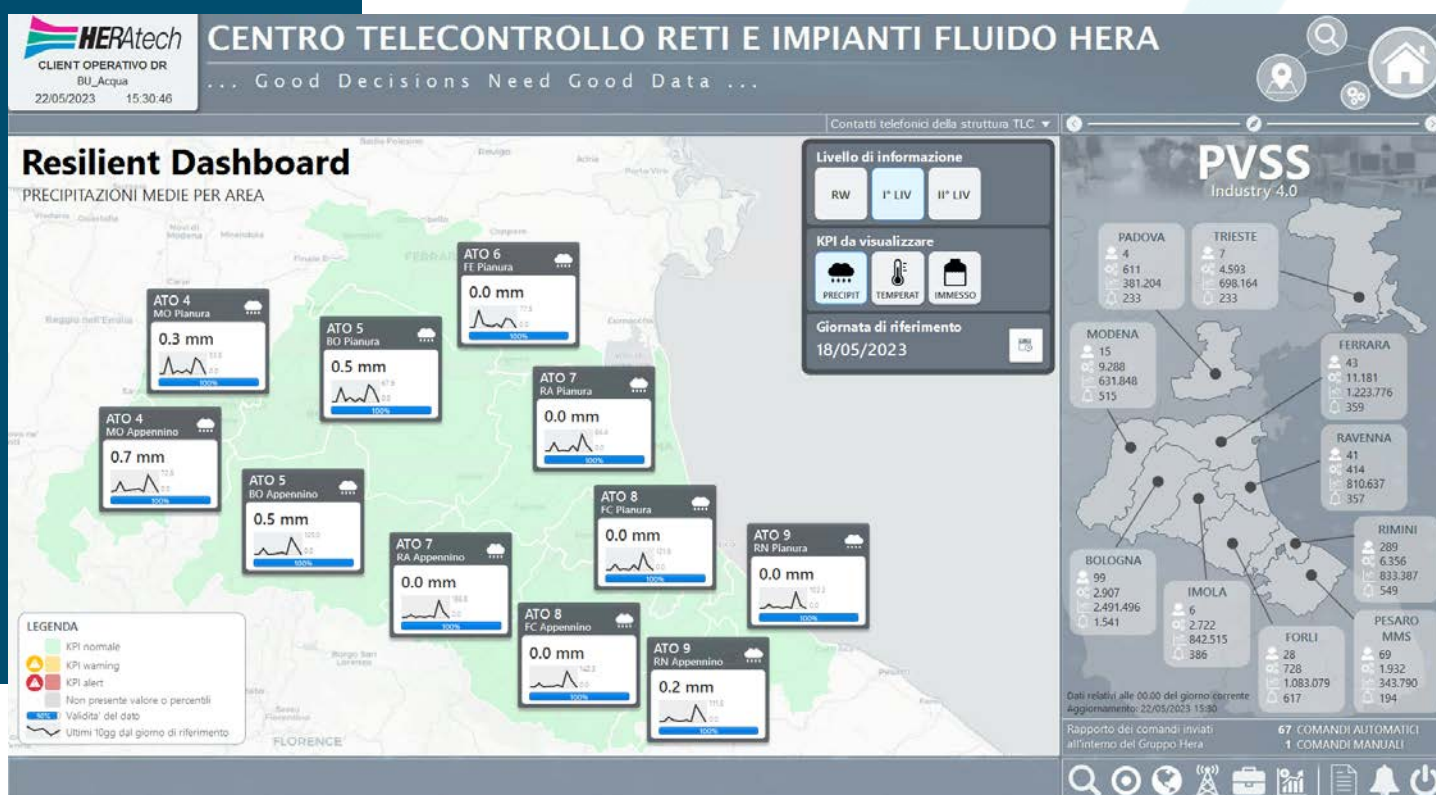
GOOD WATER  
GOVERNANCE



SUSTAINABLE  
WATER  
BALANCE



SAFE WATER,  
SANITATION  
AND HYGIENE  
FOR ALL (WASH)



### Resilient dashboard

Gruppo Hera's **resilient dashboard** has been designed to map vulnerable areas and the resilience of the aqueduct network.

It is a robust, up-to-date and effective tool useful to address long-term management choices through the **analysis of available environmental data** (source ARPAE, Hera).

The management of regional data in relation to temperatures and precipitations, allows the identification of any water supply criticalities and the potential implementation of mitigation actions.





## Water Stewardship Report 2023



IMPORTANT  
WATER-RELATED  
AREAS



GOOD WATER  
GOVERNANCE

**Safeguarding the water resource means safeguarding the environment**

Since 2019, Gruppo Hera has participated in the **restoration and conservation** of a lake named **Lago di Castel dell'Alpi** located within the Important Water Related Area (IWRA) of **Monte dei Cucchi, Pian di Balestra**.

By annually financing the dredged and cleaning activities managed by *Consorzio di Bonifica Renana*, the lake is maintained and managed to its optimum conditions for the well-being of the surrounding environment and freshwater biodiversity that it hosts.



**Renewal for the three-year period 2022-2024**



**1.354**  
New Trees



IMPORTANT  
WATER-RELATED  
AREAS



GOOD WATER  
GOVERNANCE

### ECO Alberi: planting trees to improve the climate

With the **ECO Alberi** campaign, Gruppo Hera has adhered to the call-to-action launched by the Emilia Romagna Region - **Let's put down roots for the future** with the aim of planting 4.5 million trees, one for each inhabitant of the Emilia Romagna Region.

Gruppo Hera is contributing to the planting of **10.000 trees** by supporting Municipalities and Authorities which have participated to the call-to-action.

With *Consorzio di Bonifica Renana* Gruppo Hera is directly contributing to planting of **1.354 trees** in the Bologna territory by 2023, with the aim of mitigating climate change effects and biodiversity conservation.





# Water Stewardship Report 2023



## Analysis of the main water-related risks for the Val di Setta Potabilization plant and its catchment area

By use of the WRF tool, the **overall water-related risk** to which the Val di Setta plant and its catchment area are subject to is a **medium to medium-high risk (3.0 - 3.8)**.

The **Water Risk Filter (WRF)** is a global tool that assesses water-related risks through maps and global data sets and maps.



**Water risks are classified into 3 main categories:**

- Physical (scarcity, floods, etc.)
- Regulatory (governance, management tools, etc.)
- Reputational (cultural importance of water, biodiversity, etc.).

The main water-related risks for the catchment area are **baseline water stress** and **water depletion intensity**.

These risks strictly depends on the availability and regenerative capacity of the ground and surface water sources as well as the degree of anthropization (population growth and industrial development).

The global scenarios of the WRF in regards to **blue water scarcity** and **drought frequency probability** highlight a low risk.

Although the global WRF scenario illustrates availability of surface water and groundwater reserves, and optimum water balance conditions, at a local scale this situation is rapidly changing due to the evident and **growing climate change effects** which are being triggered by progressively **less rainfalls** coupled with **increasing temperatures** and evapotranspiration rates

