

WATER: WATER SUPPLY AND WASTEWATER

Every year, Ruffino, Tenute Ruffino and Poderi Ducali compile a document stating all the parameters and advantages obtained from water reuse.

The company's water resources (wells and lakes) have been surveyed, authorized and are subject to periodic checks required by law. All water is analyzed at fixed intervals to guarantee its correct agricultural or domestic use.

Our scope is the enhancement of all existing water resources to reduce public drinking water consumption. In FY18, Ruffino installed special meters, pledging to improve the measurement of water usage by company area. During the environmental management review, we verify that water usage data coincide with data from the meters installed in the company. The data regarding water withdrawal is double checked during mandatory reports to the public authorities. These reports are carried out in compliance with the obtained authorizations for drinking water usage related to the cubic meters of water needed for the production process.

All the water sources of the Ruffino Group in FY19 are in areas with an average water risk. Specific to the food and beverage sector, the Water Risk Atlas detection model developed by the World Resource Institute was used to establish the degree of water stress. The geographical coordinates (latitude and longitude) of the cellars and vineyards owned by Tenute Ruffino and Poderi Ducali as well as those for the Ruffino plant were used as inputs for this model.

The water withdrawals of the Ruffino Group for FY19 are reported below divided by source, in accordance with GRI 303-3 (GRI 303-3 Water withdrawals).

Water withdrawal is the sum of all the water drawn from the surface, underground, marine or third-party water sources, for any use in the reference period.

In detail:

- the water contained in an artificial basin is reported under surface water;
- the water taken from the aquifers is reported under groundwater;
- the water supplied by local municipality companies is reported under third-party water.

SUSTAINABILITY REPORT - FISCAL YEAR 2019

WATER WITHDRAWAL (GRI 303-3) OF THE RUFFINO GROUP IN FY19				
WATER WITHDRAWALS BY SOURCE	RUFFINO	TENUTE RUFFINO*	PODERI DUCALI	RUFFINO GROUP (TOTAL)
Surface water	0	10,000	0	10,000
Surface water (fresh water)	0	10,000	0	10,000
Surface water (other water)	0	0	0	0
Groundwater	25,695	2,928	0	28,623
Surface water (fresh water)	25,695	2,928	0	28,623
Surface water (other water)	0	0	0	0
Marine water	0	0	0	0
Surface water (fresh water)	0	0	0	0
Surface water (other water)	0	0	0	0
Produced waters	0	0	0	0
Surface water (fresh water)	0	0	0	0
Surface water (other water)	0	0	0	0
Water from third parties (Municipality)	0	4,245	309	4,554
Surface water (fresh water)	0	4,245	309	4,554
Surface water (other water)	0	0	0	0
Total	25,695	17,173	309	43,117

* Data refer to calendar year 2018

Wastewater treatment plant

The installation of the new wastewater treatment plant that collects and treats wastewater from all production areas on the Pontassieve site was the major innovation of 2017. It is a biological membrane reactor, composed of three equalization tanks and three biological treatment tanks. After the equalization the water is filtered to eliminate solid particles and is added to the sludge. In this sludge, bacteria feed

themselves with chemicals contained in the water, which helps the bacteria drain and clean the water. The water passes through a filter that separates the sludge from the clean water. The latter is stored in a tank and then it is discharged to the municipal sewerage plant. The investment for the purchase of this plant amounted to € 260,000.



New wastewater treatment at Pontassieve

The company is evaluating the feasibility of several projects aimed at water reuse, such as irrigation of our lawns and giving the water to the Municipality of Pontassieve for street cleaning.

Tenute Ruffino is evaluating ways to:

- increase the number of water supply sources (for example, by obtaining authorization for the use of additional wells)
- improve wastewater treatment through

appropriate methods such as the creation of constructed wetlands. This technology allows wastewater from the cellars to be treated naturally thanks to the use of marsh plants and natural water filtering by means of sand and gravel.

The purified water, following specific analysis, can be returned to the environment and/or reused for irrigation and washing. There are already two active constructed wetlands on the La Soltia and Greppone Mazzi estates.



New wastewater treatment plant setting