

How we manage and protect water at Anora

Water is one of the most precious resources we share and depend on globally. It is also one of our key ingredients at Anora and it forms the very heart of our products. That's why we want to care for and conserve our common water resources, and to ensure clean and pure water also for the coming generations.

Water is one of the main ingredients in Anora's products, and we also use water for cleaning and cooling purposes at the factories. The warming of the climate increases the need for cooling in production and processes in the long run. Cooling with water is safe for both the environment and our products, as refrigerants classified toxic are not needed. Nevertheless, cooling increases the total usage of water.

Anora does not operate in water scarcity areas. We take water from both ground water and communal water sources. In the Nordics, where our production is located, there is plenty of water, but in future even that can be threatened by the warming climate. Therefore, we protect and manage water cautiously, both in our operations and in our value chain.

We are committed in our [Sustainability Roadmap](#) to diminish the use of water in our own operations and to protect the water areas in our operational countries. In our value chain, water plays an important role in barley farming and wine farming. In barley farming, we partner with [Baltic Sea Action Group](#), and in wine farming with our partners and suppliers.

We are committed to supporting a responsible drinking culture. Part of that is continuously increasing the amount of no- and low-alcoholic (NoLo) products in our assortment. The transition to lighter alcohol level products increases the amount of water as an ingredient. It also requires higher hygiene, which means more frequent washing of production equipment and thus higher water usage.

The water related risks Anora has identified, are mostly related to production. Risks include leaks to the ground spoiling ground water, tank leakage or underground pipes leakages and wastewater quality. These risks are systematically managed at Anora in the group risk management process and local site-based plans.

In 2022 Anora used 694 500 m³ of water and the amount of wastewater was 238 500 m³.

Water in own production

We are committed in our Sustainability Roadmap to reduce wastewater in our production plants by 20% by 2030, with the means of reducing water usage and increasing water circulation. Reaching this target will require a reduction of wastewater originating in the manufacturing process of alcoholic beverages and the further enhancement of water circulation.

Water management is a managerial responsibility at Anora. Water use and wastewater are managed through continuous improvement plans at our local production plants. Our main plants are Rajamäki bottling plant in Finland, Globus Wine bottling plant in Denmark, Gjelleråsen production plant in Norway and Koskenkorva Distillery in Finland. Anora has also small craft distilleries in Tabasalu Estonia and Sundsvall Sweden. The water usage in these three craft distilleries is insignificant compared to the main plants, all together less than 1% of our total water usage.

The production plants have water use and wastewater reduction targets, that include actions such as, identifying wastewater sources, reducing liquid waste, recycling of process water and other water reutilization processes. The plants analyse systematically the quality of wastewater by e.g. measuring COD (Chemical Oxygen Demand) and pH, which allows the plants to make specific changes to reduce liquid waste.

Anora does not operate in water scarcity areas and Anora's production plants do not have an impact on the water availability of the near-by communities.

Water at Koskenkorva distillery, Finland

Koskenkorva plant has its own water intake plant as well as wastewater treatment plant at the production site area. The plants are run by an external company, Step, with the authority permissions.

Water used at the plant is groundwater. Water is treated to remove iron and manganese and filtered. The calcium sludge that remains in the process is recycled to the fields in the surrounding community.

Wastewater is pre-treated in own plant and then lead to Ilmajoki municipality water treatment plant. Koskenkorva plant has as one of its KPI's the wastewater COD (Chemical Oxygen Demand). The plant works with several methods to decrease water use and wastewater amount, e.g. recycling process water and optimizing washes.

Koskenkorva Distillery together with Rajamäki plant has the biggest share of water usage at Anora.

Rajamäki bottling plant, Finland

The groundwater pumped from the two main water catchments of Anora is led to the Rajamäki plant, where it used in, besides beverage production, all of the plant's operations requiring water, such as the cleaning of tanks and production equipment. The plant's operations are developed continuously in a more ecological direction – the plant aims to reduce and increase the efficiency of water consumption in the future by recycling water in cleaning processes.

The water we use at our main bottling plant, Rajamäki, derives from the Rajamäki groundwater area. The groundwater in Rajamäki fulfills all the legal quality requirements without any chemical or mechanical processing and is accepted for alimentary use as such. The same water has been used at the Rajamäki plant since 1888, when the plant was established.

The Rajamäki alcohol beverage factory aims to reduce its water usage while ensuring the high quality of water is maintained. Insufficient water turnover in water intake wells and pipelines can lead to a deterioration in quality due to stagnant water.

The plant has separate water meters at different departments, to measure more specifically the use of water in different parts of the process. Washing waters are reduced by using circular washing equipment, that gathers and re-utilizes washing waters.

By automating processes, efforts are made to standardize water usage in various stages of production. This ensures that water usage remains stable regardless of the different working methods of operators.

Active measures, including various projects, are actively sought to reduce the factory's water usage and wastewater volume. These projects aim to assess investment needs to achieve the goals.

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Gjelleråsen production plant, Norway

At Gjelleråsen production plant we use regional municipal water, that derives from river Glomma and is purified by the municipality. Gjelleråsen plant has an additional water purification procedure, based on ion exchanger and UV light, to make the water quality suitable for process and products.

Wastewater goes out to municipal water treatment plant. Wastewater quality is followed by measuring COD (Chemical Oxygen Demand). The local water management plan includes several actions to reduce amount of water used and to improve the wastewater quality, such as recycling process water and improving efficiency of cleaning.

Globus Wine, Denmark

At Globus Wine the water we use in cleaning, cooling and products arrives from the municipality. We treat the water to make it softer, to avoid layering of calcium in our piping systems. We measure the quality of wastewater as instructed by the authorities and we treat the wastewater by changing pH, before directing it to the municipal sewage system.

Tabasalu production plant, Estonia

At Tabasalu we utilise groundwater from our own well. The plant has water treatment in place, including filtration, UV treatment and reversed osmosis.

Wastewater is transported in tanks by external service provider to a nearby municipal wastewater station. We constantly work with reducing the amount of water used, e.g. by optimized usage of water during washing, optimized wash cycle and recycling bottle rinsing liquid, that contains 80% water.

Sundsvall distillery, Sweden

At our Sundsvall aquavit distillery in Sweden, we use local community water. The community has a natural spring water well outside the factory by Jungan riverbank. Water is mostly used to cooling down the distillation pots and washing. Cooling water is collected and re-used as washing. Production water is purified.

Wastewater is collected in a tank, the pH-level checked and balanced and solids, such as spices taken away, before the water goes to municipality.

Water protected through owning land

Water plays an important role in ensuring the high quality of Anora's products, being one of the key ingredients in Anora's products. The quality of water is sought to be secured by protecting the groundwater area. Protection primarily occurs through land ownership in the groundwater area, which is the best way to influence land use.

Anora owns and protects a more than 1,000-hectare area at Rajamäki and particularly the groundwater beneath it. Anora has made a forest management program for this area, that includes protected swamps and over 140 years trees. The area binds over 800,000 tons of CO₂ and the forest management program aims to safeguard and increase that carbon amount.

The groundwater area has water well above Anora's needs: Rajamäki bottling plants uses a minor part of the capacity of this continuously self-renewing water supply. The sufficiency of water in the

groundwater area is ensured through the water extraction permit issued by the authorities. Anora protects this valuable natural resource with great care. In addition to the continuous monitoring of the water's surface levels and quality, the area is shielded from activity that could result in impurities ending up in the water.

Water quality is regularly examined, and groundwater levels are continuously measured to quickly detect any potential changes in water quality or sufficiency.

The high-quality, pure groundwater has been one of the most important things at Anora's for more than 130 years. Its protection benefits everyone: In addition to guaranteeing the plant's operations, it preserves the area's nature for future generations. Our products can also be recognised in chemical analysis from counterfeit products, due to the unique profile of the water we use.

Water in barley farming

Barley farming is one of the key areas in our value chain, where the biggest impact to the environment comes from. We buy yearly over 200 million kilos of Finnish barley. Barley fields are not watered artificially, but their irrigation depends on natural rainfalls. On the other hand, farming can have impacts to the water areas nearby: lakes and the delicate ecosystem of the Baltic Sea. Chemical agents used in farming can get washed from the soil and end to the water systems, causing eutrophication.

Anora has partnered with [Baltic Sea Action Group](#) from 2018 to develop agricultural practices, that reduce nutrient flow to the Baltic Sea. From 2020 Anora has also trained its farmers together with Baltic Sea Action Group about regenerative farming practices, that help to bind more water to the soils, increase carbon sequestration and approve biodiversity. This impactful work continues, and Anora is committed to increase the share of regeneratively farmed barley to 30% of its own grain-spirit based products by 2030.

Value chain: water in viniculture

Wine is an important raw material and import product for Anora. We source wine globally from several partners. Viniculture uses water in irrigation and some of our suppliers might work in water scarcity areas. We choose partners, that work with careful water management. The methods are dependent on the geography, and might include reuse of treated wastewater, drip irrigation, soil moisture control or sensorisation and desalination of water.

In our [Code of Conduct for Suppliers](#), Anora obligates its suppliers and partners to have a water management plan and strive for decreasing use of water particularly in water scarcity areas. When choosing new partners, we utilize a self-assessment questionnaire to understand the impacts and management of water by the supplier.