

WATER RESOURCE MANAGEMENT

*GRI Standards: 303-1, 303-2, 303-3: Water
306-1: Effluents and Waste*

At Sanofi, we require clean water in sufficient amounts for our production activities, and we are well aware of the critical challenge posed by the dwindling availability of vital freshwater resources.

I. OUR PROGRESS

Objectives	2018 Progress and actions	Status
2015-2020: Achieve 10% reduction in water consumption.	In 2018, we achieved a reduction of 14% in our water consumption compared to our 2015 baseline year.	On track

Our environmental strategy (Planet Mobilization program) aims to define targets for reducing water usage at each of our facilities. This will be accomplished through a workshop to determine the maximum achievable reduction target for each site. Next, a reduced water usage global target for the whole company will be established.

II. STRATEGIC APPROACH

Sanofi is committed to managing water responsibly as a sustainable renewable local resource, in order to safeguard the health of individuals and communities.

The responsible management of water resources touches upon key aspects of our business, such as our license to operate, ensuring business continuity, and our relations with stakeholders.

1. Reducing our water consumption

Sanofi uses water for many of its industrial processes – in production operations and cleaning processes at all our manufacturing sites and in cooling systems during fermentation processes. Cleaning operations are a sector-specific key quality concern. Water is also used in R&D and non-production facilities, and as an obvious service to employees.

In terms of our overall consumption, water used for cooling purposes and at chemistry and biochemistry sites accounts for the greatest share by far. The option of cooling with water, as a trade-off with energy requirements, is always fully assessed considering local availability of water, absence of impact, and acceptance by local communities, with regulatory approval.

Our internal Health, Safety and Environment (HSE) standards require all Sanofi sites to implement and follow a water management plan. In addition, our internal rules require all sites that are potentially concerned by water scarcity to establish and comply with a specific plan for reducing water consumption that is tailored to the site's local context and industrial characteristics.

In line with our initial commitment to decrease our water consumption by 25% between 2010 and 2020 (completed by the 10% objective between 2015 and 2020), we organize many different initiatives to help the company use less water. For example, we ask our sites to implement and review water management measures on a regular basis and to organize systematic assessments of any areas where water may potentially be saved. Additionally, we pay particular attention to Sanofi sites located in areas of potential water stress/water scarcity, in order to define specific action plans designed to reduce water consumption and develop appropriate ways to address any risks at these sites.

We have developed a self-assessment tool addressing local sensitivity and the perceptions of people on-site concerning water-related topics. This tool has been used by sites in some of our businesses (Chemistry, Injectables) and also in some countries (Brazil, China, and Columbia).

We have also replied to the Climate Disclosure Project (CDP) water questionnaire every year since it has been introduced.

2. Water-related risk assessment

Our water-related risk assessment relies on:

- An in-depth study of Sanofi sites that may encounter any risk related to water supply especially sites located in water scarcity/water stress areas
- Environmental risk assessment
- Due diligence processes
- HSE audits
- Suppliers

Sanofi sites in water scarcity and water stress areas

As part of our global water management strategy, we focus particular attention on Sanofi sites located in areas of water stress and water scarcity. In such areas, we can develop action plans to reduce water consumption, thus addressing any potential risks.

Since 2014, Sanofi has fine-tuned its methods of determining locations where activities may be impacted by water-related risks. Our approach looks firstly at absolute water usage at the site level, and secondly at absolute local water stress risk and regional relative water usage levels. This in-depth study combined local internal data and global external expertise in 2015 and 2016, along with a list of locations that may potentially be concerned by a water supply risk (water scarcity risk) and locations for which further investigations must be carried out locally to confirm the situation.

In 2018, there are:

- Sites with high potential water-supply risk (4 sites), representing 20% of the company's water withdrawal in 2017;
- Sites for which further investigations are necessary to determine whether they are affected by water-related risk (13 sites), representing 11% of the company's water withdrawal.

For all impacted facilities, a working program was established by the end of 2015 to cover a four-year period. Facilities with high potential risk as described above are required to define an action plan to reduce water usage on site, including relevant targets and appropriate follow-up.

Specific studies on water resources and / or internal site usage are conducted, for example, at the vaccine site in Toronto, Canada, and at the Vertolaye and Elbeuf sites in France. Also, in the context of tensions regarding the water supply around Sao Paulo (Brazil), specific measures were implemented, as the recycling of wastewater to produce cooling water.

In addition, a computerised tool was developed for sites to carry out their self-assessment with regards to water issues in their local context. This tool focuses on chemistry sites and injectables manufacturing sites, as well as sites in Brazil, Columbia and China. Implementation is ongoing.

Environmental risk assessment

Each site has a program to systematically identify, evaluate, prioritize and control the impact of its activities and products on the environment. This assessment also includes any impact possibly resulting from historic activities (e.g., soil and groundwater contamination). This assessment is regularly updated. An annual action plan is established and implemented to improve and control the prioritized actions identified. This plan is the environmental component of the PASS. Beyond the annual plan, long-term opportunities to optimize resources and expenditures dedicated to better protecting the environment are, when appropriate, identified in the local capital expenditure action plan.

Depending on the results of the environmental risk assessment and regulatory requirements, the management program includes the following:

- A water withdrawal and water consumption management and reduction plan;
- Characterization of the main discharges and sources of waste water effluents;
- Minimization of flow and load of wastewater effluents;
- Monitoring, control and reporting.

Each site assesses the need to install the following: waste water treatment plant, an equalization pool, a fire water containment basin to retain polluted water resulting from either the extinction of a fire or from a pollution accident, and a storm water buffer basin.

Due diligence processes

During site purchasing due diligence, water intake and discharge are taken into consideration as one aspect of overall Health, Safety and Environment (HSE) actions. Our key water concerns are related to regulatory compliance for water usage and discharge and assessment of local sensitivity.

Health, Safety and Environment (HSE) audits

HSE audits are conducted throughout all our facilities over a rolling three-year program covering the entire 78 HSE internal rules and related standards. Within the scope of environmental actions, water is addressed in line with requirements concerning water scarcity, the water management plan at site level, and effluent management and discharge.

Suppliers

Today we acknowledge that our environmental responsibility also includes our whole footprint in connection with our Suppliers and Subcontractors.

3. Contributing to preserving water quality: Managing wastewater discharge responsibly

We strive to limit any contamination of water resources by implementing an effective wastewater discharge management strategy, which also includes some specific substances related to our pharmaceutical activities.

Each site implements a tailor-made effluents management program, based on environmental impact assessments and applicable statutory and regulatory requirements. These programs include characterization of potential pollutants and the implementation of specific solutions and technologies to control and remove such pollutants. We also focus on improving discharge treatment systems and implementing systematic quality controls for effluents to help preserve the quality of surface water and prevent sub-soil and groundwater contamination.

Sanofi's management of wastewater is covered by our HSE policy and falls within the scope of our HSE management system. Furthermore, we promote the proper disposal of unused and expired medicines by patients.

For more information, see our [Documents Center](#): Disposal of Unused Medicines and User Recommendations Factsheet

III. HIGHLIGHTS

1. New equipment to reduce our water consumption

Sanofi's 2018 water consumption is significantly reduced when compared to 2017 results (-8%). This performance is the conclusion of continuous efforts engaged by many sites, from all of Sanofi's main Industrial Activities (pharmaceutical Production, Chemistry and Vaccines).

Suzano

In 2018, a greenfield WWTP was installed to manage sanitary & industrial wastewater generated by the site, with the objective to recycle up to 2/3rd of the daily production for cooling tower applications (instead of drinking water supplied by the City Network). Expected saving on water withdrawal corresponds to 1/3rd of the site's total water consumption every year.

Brindisi site (Italy):

The Brindisi site has completed in 2018 a successful project on the modernization of Water Chillers, now using recycled water from Colling Towers. They managed a spectacular reduction of water withdrawn from wells, representing a global reduction of their water consumption of 19%.

Toronto site (Canada):

Following a monitoring campaign and the identification of the most significant opportunities, reduction of water consumption by 20% has been achieved based on the 2017 Modernization of the Cooling System of the Power Plant of the site. 200,000 m³ of Drinking Water are now saved every year thanks to this project, with efforts ongoing in 2018 (12% reduction when compared to 2017)

2. Managing wastewater discharge

Chemical Oxygen Demand (COD) is a parameter commonly used to quantify the amount of organics in water, and so the quality of the effluents.

Depending on local conditions, applicable regulation and the type of production activities, Sanofi sites may discharge effluents into municipal wastewater treatment plants (WWTP) or may have dedicated water treatment equipment at site and then discharge treated water into water bodies.

In 2018, COD content in treated effluents discharged to water bodies after treatment (by Sanofi Units or external WWTPs) decreased by 17% compared to 2017. This performance is explained by the start-up of new WWTPs at Sanofi sites such as in Geel (Belgium) or Le Trait (France).

IV. FIGURES

Company water withdrawal

	Unit	2017	2018
Surface water	Mm3/year	9	9,1
City water	Mm3/year	7,7	7,7
Ground water	Mm3/year	23,5	20,3
Total water consumption	Mm3/year	40,2	37,1

Effluents in water discharged

	2016	2017	2018	2017-2018 variation
COD (Tons)	2,9	2,4	2,1	-17%