

CDP Water Security Questionnaire 2020

Respondent: **Total**

W0 Introduction

Introduction

(W0.1) Give a general description of and introduction to your organization.

Total, which has produced oil and gas for almost a century, is one of the largest international oil and gas companies and a major player in low carbon energies. It is present on five continents and in more than 130 countries, with consolidated sales of 200,380 million USD in 2019.

Committed to better energy, over 107,000 employees help throughout the world to provide the Group's customers with products and services that are more affordable, more available and cleaner.

As well as conducting its business according to the highest standards of professional behaviour, Total maintains an ongoing commitment to transparency, dialogue and respect for others. The company is strategically dedicated to meeting the challenges faced by all its businesses when developing natural resources, protecting the environment, integrating our operations into host country cultures, and dialoguing with civil society.

Total's activities are divided into 4 main business segments:

- Exploration & Production of oil and natural gas.
- Integrated Gas, Renewables & Power spearheads the Group's ambitions in low carbon energies. It comprises gas and electricity activities that are developed downstream of the gas chain all the way down to end-use consumers, including through LNG and power. Its activities include power generation, from gas and from renewables, solar, wind, and hydro, and power storage through batteries. They also include services for energy efficiency and energy access.

- Refining & Chemicals encompasses refining and petrochemical activities, renewable fuel and plastics from biomass and Hutchinson's operations. It also includes oil Trading & Shipping activities.
- Marketing & Services includes worldwide supply and marketing activities mainly of oil products and services, but also of renewables incorporated in oil products, and of gas used for mobility.

Energy is an essential resource for the development of human societies. In view of the major challenges faced by the world today, energy producers have a key role to play. It is by relying on the support provided by its governance and a diverse shareholder base that the Group will be able to fulfil its collective ambition to become a responsible energy major and to supply more reliable, more affordable, and cleaner energy to the greatest number of people. To reach this goal, Total leverages its integrated business model, which enables it to capture synergies between the different activities of the Group, its operational excellence, its technological expertise and its capacity to manage complex projects.

The Group's strategy takes into account the evolution of energy markets to respond to the challenges of climate change. Total establishes its strategy and long-term price trajectory in line with the IEA's well below 2°C Sustainable Development Scenario.

This strategy is based on four pillars:

- expanding along the natural gas value chain;
- developing profitable low-carbon electricity businesses;
- focusing on oil assets at a low breakeven point;
- investing in technologies and businesses that contribute to carbon neutrality.

The ambition of this strategy is to reduce the carbon intensity of the energy mix that the Group offers to its customers and thus to contribute to the evolution of market demand and society's energy transition.

Total acts on several complementary levels:

- on products, by developing energies with a lower carbon content, such as gas (including biogas and hydrogen), renewables and biofuels;
- on demand, by developing, for example, electric mobility or LNG as transport fuel;
- on emissions, by first reducing emissions from its facilities (CO₂ and methane), but also by advising its customers in reducing their emissions (electric mobility solutions, storage, energy efficiency consulting) and by developing carbon sinks (nature-based solutions or CCUS).

Total has committed since 2016 to contributing to the United Nations SDGs and has structured its approach to responsible development in order to make a more significant contribution to the SDGs, and in particular regarding access to energy, decent work, human rights and climate change.

Total intends to strengthen its involvement in the circular economy and implement a program of innovative responsible actions, particularly in the following areas: purchasing, waste management, new ranges of polymers, solarization of its own industrial sites and service stations and improved energy efficiency.

The Group places the environment at the heart of its ambition of being a responsible company with a goal to improve the environmental performance of the facilities and products. The water target is to maintain the hydrocarbon content of water discharges below 30 mg/l for offshore sites and below 15 mg/l for onshore and coastal sites. 100% of the Group's oil sites have met the target for the quality of onshore and offshore discharges in 2019.

(W-CH0.1a) Which activities in the chemical sector does your organization engage in?

- Bulk organic chemicals
- Bulk inorganic chemicals
- Specialty organic chemicals
- Specialty inorganic chemicals

(W-OG0.1a) Which business divisions in the oil & gas sector apply to your organization?

- Upstream
- Midstream/Downstream
- Chemicals

(W0.2) State the start and end date of the year for which you are reporting data.

Start date	End date
01/01/2019	31/12/2019

(W0.3) Select the countries/areas for which you will be supplying data.

Country/area
Angola, Argentina, Belgium, Bolivia, Brazil, Brunei, Canada, China, Congo, Czechia, Denmark, France, French Guiana, Gabon, Germany, India, Israel, Italy, Kazakhstan, Kenya, Malaysia, Malta, Mauritania, Mexico, Morocco, Myanmar, Netherlands, Nigeria, Norway, Papua New Guinea, Philippines, Poland, Portugal, Qatar, Romania, Russia, Senegal, Serbia, South Africa, South Korea, Spain, Sweden, Tanzania, Tunisia, Uganda, United Arab Emirates, United Kingdom, United States of America, Vietnam

(W0.4) Select the currency used for all financial information disclosed throughout your response.

Currency
Euros

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

- Companies, entities or groups over which operational control is exercised

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

No

W1 Current state

Dependence

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

Water quality and quantity	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Not very important	Freshwater is critical to Total's activities. Total's Refining & Chemicals (RC) activities represent 86% of Total 's freshwater withdrawals in 2019 (excluding open cooling and rainwater). At refineries and petrochemicals sites, water is mainly used to produce steam and for cooling purposes. Water availability and quality are essential and will remain so for business continuity, as exploration and refining activities are by nature water dependent. Freshwater is also necessary for Total's solar operations. Total's supply chain doesn't include water intensive products from mining commodity products. Regarding agricultural supply for biofuels, they are coming from countries and areas without any water scarcity issues (this is controlled through our Geographic Information System). However, indirect water use's importance is expected to rise with the development of new environmental norms and Total remains attentive to understand the dependence regarding current and future needs for fresh water of its direct operations and from its value chain. We strive to reduce reliance on freshwater sources.

Water quality and quantity	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Not very important	<p>The extraction of hydrocarbons produces large volumes of water. Smart, safe management of this produced water is both a business opportunity (treatment and recycling/reuse) and a regulatory necessity (compliance) to ensure a responsible approach towards local communities. The volumes of produced water and their discharge destination are accounted by the Exploration and Production branch, including the share that is immediately reinjected as part of the Enhanced Oil Recovery (EOR) process, and the share that is discharged to other water bodies. Total's use of non-fresh water primarily occurs in once-through cooling processes, and for maintaining reservoir pressure in EP activities. As to Exploration & Production activities, brackish and saline water are mainly used for maintaining reservoir pressure in addition to produced water reinjection. These types of waters are also used for once-through cooling purposes. It is therefore important for Total to access sufficient amounts of recycled or brackish water to pursue its activities. For the Refining & Chemicals activities, brackish water is also mainly used for once-through cooling purposes. As EOR and RC activities will remain core to Total's activities, Total expects that, in the future, the availability of non-fresh water will remain very strategic to sustain all our activities. Thus, we will anticipate the deployment of new alternatives to recycle or reuse produced water soon, in order for Total to bring solutions linked to its activities for the potential situation of water scarcity. There is no specific dependency to recycled, brackish or produced water identified in Total's supply chain, as Total sources most of its materials internally. Supplied liquids (chemicals, feedstocks, water) are limited in quantity and are commodities available from different places.</p>

Company-wide water accounting

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

Please complete the following table:

Water aspect	% of sites / facilities / operations	Please explain
Water withdrawals – total volumes	100%	<p>All our activities use HARPE, the Group-wide reporting system and environmental reporting covers all the scope in which Total is the operator. Created in 2010, the HARPE reporting system, based on ENABLON technology, allows the sites to collect 32 water quantity and 80 quality indicators (by source type, discharge recipient, for freshwater and brackish). HARPE reminds the definition of indicators and includes the calculation of aggregated KPIs. It refers to international norms like ISO14001 and it evolves with regulations and new frameworks. Total water withdrawal volumes, including breakdowns, are measured and continuously monitored at all our facilities. Data collection is planned through HARPE, annually at Group level and on a monthly/quarterly basis at Business Units.</p> <p>Future withdrawal volumes are not expected to change significantly since mostly coming from a stable business sector (Refining & Chemicals).</p>

Water aspect	% of sites / facilities / operations	Please explain
Water withdrawals – volumes by source	100%	<p>All our activities use HARPE, the Group-wide reporting system and environmental reporting covers all the scope in which Total is the operator. HARPE reporting system allows the sites to collect 32 water quantity and 80 quality indicators. For HARPE, see more information above. All relevant business units measure and monitor the breakdown of water withdrawals by sources, consistently using the water sources categories available in HARPE, which therefore allows to monitor water withdrawals by sources. The information reported annually on withdrawals is either directly measured or estimated for fresh or brackish waters. More than 95% of water withdrawals are monitored. The 5 last % come from local information systems. FYI, the Marketing and Services (MS) not directly involved in raw materials extraction, monitors its own withdrawals (1%) but does not specify source breakdown and MS isn't integrated in the scope of this KPI.</p> <p>No significant change in the sources is expected soon.</p>
Produced water associated with your oil & gas sector activities - total volumes	100%	<p>All our activities use HARPE, the Group-wide reporting system and environmental reporting covers all the scope in which Total is the operator. HARPE reporting system allows the sites to collect 32 water quantity and 80 quality indicators. For HARPE, see more information above. The volumes of produced water and their discharge destination are accounted by the Exploration and Production branch, including the share that is reinjected as part of the Enhanced Oil Recovery (EOR) process, and the share that is discharged to other water bodies. The data collection is done daily. Then it is monitored and reported in the EP segment's environmental reporting system. This indicator is thus covered across all of relevant operations and is subject to continuous monitoring daily and consolidated in the HARPE on an annual basis.</p> <p>An increase in produced water total volumes is possible in the future according to announced portfolio changes.</p>
Water withdrawals quality	100%	<p>At each site level, Total monitors the relevant parameters of water withdrawals to ensure that human health standards and process requirements are matched. Indicators are consistently monitored through site-measurements and include standard suit biophysical parameters such as pH, water hardness, pollutant loading, salt content etc. Depending on the water withdrawal sources (municipal networks, river pumping...), the measurement frequency is aligned with the quality objectives, i.e., water used for boilers is daily assessed or water for cooling purposes is assessed each week.</p> <p>According to the evolutions of drought events particularly in France, it is anticipated that the quality of withdrawn water could decrease.</p>
Water discharges – total volumes	100%	<p>All our activities use HARPE and this Group reporting system allows the sites to collect 32 water quantity and 80 quality indicators. See more information above. Total measures and monitors water discharges by volume through HARPE. Data is collected annually at Group level and daily/monthly/quarterly at some business units. Water discharges are monitored through HARPE for 100% of relevant sites and for 98% of discharges, mostly on a daily basis. For the MS segment, water discharges are monitored at key sites only, notably water injected to the ground. MS Water discharges are not material at Groupe level (< 1% in 2019) and the waters are discharged to either surface water bodies or municipal water networks. However, for the two most relevant MS sites, water discharges are accounted.</p> <p>No significant change in the total volume of discharge water is now anticipated.</p>

Water aspect	% of sites / facilities / operations	Please explain
Water discharges – volumes by destination	100%	<p>All our activities use HARPE that allows sites to collect 32 water quantity and 80 quality indicators. See more information above. Total's business units report volumes of water discharges by destination for each operated facility. Data is collected very frequently at site level (up to a continuous basis 24/7) and annually aggregated at HQ level. This indicator is monitored for 100% of relevant sites and for more than 98%, the water discharges are continuously measured through flowmeters.. The HARPE destinations include: surface water, municipal or industrial wastewater treatment plans, , groundwater. For the MS activities, this indicator is not collected excepting for the 2 most MS relevant sites which report water discharges by destination. For the remaining MS sites, the water withdrawn is discharged back to surface bodies or to municipal water networks.</p> <p>No significant change is anticipated so far.</p>
Water discharges – volumes by treatment method	100%	<p>All our activities use HARPE that allows sites to collect 32 water quantity and 80 quality indicators. See more information above. The water discharges are systematically treated as per Group requirements. continuous measurements and daily monitoring are done. Data consolidation is done annually at Group level for more than 95% of indicators and monthly at units' level. Treatment typology depends on branches, water fluxes types and activities thus the treatment methods are directly or indirectly monitored through classification of water fluxes by activities available in HARPE.. The 2 most relevant sites in MS report water discharges by treatment method. At the remaining MS sites, the water withdrawn is discharged back to surface water or municipal water.</p> <p>According to investment forecast, no significant change in the use of treatment method is anticipated at the moment.</p>
Water discharge quality – by standard effluent parameters	100%	<p>All our activities use HARPE that allows sites to collect 32 water quantity and 80 quality indicators. See more information above. Through HARPE Total consistently measures and monitors water discharge quality. Total has publicized targets to reduce the hydrocarbon content of water discharge at on and offshore sites. This indicator is monitored at 100% of the group's significant sites and aggregated at corporate level. For the sites representing less than 5%, the data are kept at site level. In 2016 The Group defined a new set of environmental targets aligned with the 2010-2020 period: to maintaining hydrocarbon content of water discharges below 30 mg/l for offshore sites and below 15 mg/l for onshore sites. In RC branch, pH, temperature and COD are continuously monitored and metals, PAHs, BTEX... are monthly monitored.</p> <p>No significant change in the quality of our effluents is expected so far.</p>
Water discharge quality – temperature	100%	<p>All our activities use HARPE that allows sites to collect 32 water quantity and 80 quality indicators. See more information above.. The temperature of discharged water is monitored at Total's operations but this indicator is not consolidated at Group level in HARPE. Due to the difficulty represented by the heterogeneity of the requirements in line with different regulations and the mixing zone definitions, this information is not consolidated at Group level and is monitored at local level. However, it is quite systematically required by local regulations and to comply to IFC monitoring programs at certain sites. This is one of the most closely monitored parameters. In RC branch, temperature is continuously monitored (24/7).</p> <p>We are not expecting major non conformities on this parameter in the near future.</p>

Water aspect	% of sites / facilities / operations	Please explain
Water consumption – total volume	76-99%	<p>All our activities use HARPE that allows sites to collect 32 water quantity and 80 quality indicators. See more information above. Total business units report their total volumes of water consumption for each operated facility in HARPE. These indicators are subject to continuous monitoring through flowmeters. Data collection and calculation is annual at Group level. Water Consumption is sometimes complex to monitor very precisely due to the difficulty to measure accurately Rain Water income. For the water consumption data collection, there is an exception with the MS segment but the MS water consumption is not significant (1.9%). However, the 2 most relevant sites in the MS report their water consumption. Consumption is thus measured for more than 95% of the value of the indicator.</p> <p>No significant change in the water consumption is expected so far.</p>
Water recycled/reused	100%	<p>All our activities use HARPE that allows sites to collect 32 water quantity and 80 quality indicators. See more information above. The majority of water recycled/reused reported by Total for CDP corresponds to produced water reinjected to the ground for reservoir pressure maintenance purposes and the water recycled at RC. These volumes are accounted at group level through HARPE. These indicators are subject to continuous monitoring through flowmeters. Data collection is done annually at Group level and monthly/quarterly at some business units. In India, a rain water harvesting collection pond & Sewage Treatment Plant has been implemented (Direct operations GRP), to improve water efficiency by reducing usage and consumption. The initiative is focusing on treating and reusing factory sewage water discharge for gardening.</p> <p>Today, there is no announced major investment to increase the quantity of water recycled or reused at Total.</p>
The provision of fully-functioning, safely managed WASH services to all workers	100%	<p>Total is committed through its code of conduct to respect the ILO convention to provide employees with adequate work conditions, including access to potable water, toilet facilities. Audits are conducted yearly with Goodcorp since 2002. Each year, a steering Ethics committee chooses the audited affiliates according to the results of the former audits. The audits last about 10 days, during which the WASH services are audited for our employees but also for our subcontractor's employees. . Additionnaly, for example, in RC branch, bacteriological analyses are done for showers and water distributors every 2 months and more if needed. This process enables to continuously measure progress across 100% of Total's operations. Results are compiled at site level and all non-conformities are systematically reported at Group level through SHARE platform, a Group-wide system.</p> <p>No change for the future.</p>

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

Please complete the following table:

Water aspect	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	579,416	About the same	<p>According to the CDP questionnaire's accounting principles (including produced water and non-fresh water as water withdrawals), Total's total water withdrawal has been quite stable in 2019 compared to previous year, with an 8.3% increase in absolute terms (534,848 in 2018). The evolution is mainly driven by the rise in non-fresh water used for Pressure Maintenance purposes, due to variation in assets' operations (change of portfolio). Of note, this withdrawal data is different from the water withdrawal indicator followed in Total's annual registration document, which only accounts for the total fresh water withdrawals (Fresh water withdrawals excluding once-through cooling water and rain water = 115 million m³). Produced water is indeed fossil water and thus its cycle (either released in the environment or reinjected) is not linked to actual water resource. Rainwater collection is accounted in the 2019 figure (not in 2018) thanks to an improved accounting procedure.</p> <p>On the short to medium term, no significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. On the longer term, Total's commitment to a low-carbon business model should reduce its dependency to natural resources including freshwater.</p>
Total discharges	542,813	About the same	<p>The total water discharge from Total's activities has been quite stable in 2019 compared to previous year: +9.9% (vs. 494,027 In 2018), even though it covers different realities among the different branches of Total as described here-after. This evolution is mainly driven by the rise in non-fresh water used for cooling purposes (and therefore eventually discharged), due to variation in assets' operations (change of portfolio). Frequent reporting practices: The Refining and Petrochemical sites report each month the number of days for which at least one emission limit value has been exceeded in the wastewater. They detail the corresponding parameters and the causes of overshoot. This indicator is presented every month to the HSE director of the Group and regularly in Branch CODIR and in Group HSE CODIR. It is also published on the Group's intranet. It contributes to orienting the assistance of the support functions as well as the investments on the water themes registered in the "Long Term Plan" of the Branch.</p> <p>On the short to medium term, no significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. On the longer term, Total's commitment to a low-carbon business model should reduce its dependency to natural resources including freshwater and subsequent discharges.</p>

Water aspect	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total consumption	36,604	Lower	<p>The total water consumption from Total's activities has been lower in 2019 compared to the previous year: -10,3% (vs. 40,821 In 2018). It is calculated as the difference between total of withdrawals and total of discharges. In absolute values, we notice an improvement of our water consumption as a result of our progress initiatives.</p> <p>On the short to medium term, no significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. On the longer term, Total's commitment to a low-carbon business model should reduce its dependency to natural resources including freshwater.</p>

(W-OG1.2c) In your oil & gas sector operations, what are the total volumes of water withdrawn, discharged, and consumed – by business division – and what are the trends compared to the previous reporting year?

Please complete the following table:

Water aspect by business division	Volume (megaliters/year)	Comparison with previous reporting year %	Please explain
Total withdrawals - Upstream	250,705	About the same	<p>The EP segment encompasses upstream activities. Its water withdrawals have been quite stable compared to previous year with a +7.1% increase (233,998 in 2018). This evolution is mainly driven by the rise in non-fresh water used for Pressure Maintenance purposes, due to variation in assets' operations (change of portfolio). It is important to note that freshwater withdrawals, that represent the actual issue regarding water resource, have decreased over the same period due to non-conventional activities reduction.</p> <p>On the short to medium term, no significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity.</p>
Total discharges – Upstream	244,297	About the same	<p>The EP segment encompasses upstream activities. Its water discharges have been quite stable compared to previous year with a +8.1% increase (226,015 in 2018). This evolution is also mainly driven by the rise in non-fresh water used for Pressure Maintenance purposes (which is eventually discharged), due to variation in assets' operations (change of portfolio). Of note, Total considers that the definition of reinjected water as a discharge is not appropriate for its EP activities, since this water is reinjected in a fossil reservoir, replacing oil, and thus not causing any harm of any nature to the environment. For these reasons, Total discharges indicator should not include water reinjected in oil reservoirs.</p> <p>On the short to medium term, no significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity.</p>

Water aspect by business division	Volume (megaliters/year)	Comparison with previous reporting year %	Please explain
Total consumption – Upstream	6,408	Lower	The EP segment encompasses upstream activities. Its water consumption has been lower compared to previous year by -19,7% (7,983 in 2018). This is mainly due to lower freshwater withdrawals due to non-conventional activities reduction. On the short to medium term, no significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity.
Total withdrawals – Midstream / Downstream	323,466	About the same	The figures provided relate to the RC segment, which includes both refining and chemical activities. Its water withdrawals have been stable compared to previous year with a +9.4% increase (295,807 in 2018). This is mainly due to an increase in open cooling water volumes, which are withdrawn and discharged (no significant water consumption). Of note, rainwater collection is accounted in the 2019 figure (not in 2018) thanks to an improved accounting procedure. On the short to medium term, no further significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. On the longer term, Total's commitment to a low-carbon business model should reduce its dependency to natural resources including freshwater.
Total discharges – Midstream / Downstream	293,493	Higher	The figures provided relate to the RC segment, which includes both refining and chemical activities. Its water discharges have been higher compared to previous year with a +11.6% increase (263,083 in 2018). This is mainly due to an increase in open cooling water volumes, which are withdrawn and discharged (no significant water consumption). On the short to medium term, no further significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. On the longer term, Total's commitment to a low-carbon business model should reduce its dependency to natural resources including freshwater and subsequent discharges.
Total consumption – Midstream/ Downstream	29,972	About the same	The figures provided relate to the RC segment, which includes both refining and chemical activities. Its water consumption has been stable compared to previous year with a -8.4% decrease (32,724 in 2018). On the short to medium term, no significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. On the longer term, Total's commitment to a low-carbon business model should reduce its dependency to natural resources including freshwater.

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Yes	1-10%	About the same	Other: Local Water Tool / GEMI	<p>In order to identify its facilities exposed to the risk of water stress, Total records the withdrawals and discharges of water for 100% of its significant operated sites and assesses these volumes on the basis of the current and future water stress indicators of the WRI Aqueduct tool. Currently, 9.3% of fresh water withdrawals take place in water stress areas (9.83% in 2018). In 2019 the proportion of water withdrawn for sites located in water stressed basins is stable compared to previous year. The tool's threshold to determine water stress level is widely and internationally accepted as a standard. This corresponds to a "high" level of water stress or higher.</p> <p>For the sites situated in these areas and with freshwater withdrawals over 500,000 m³ per year, Total is assessing water resources risk levels using the Local Water Tool (LWT) for Oil & Gas from the Global Environmental Management Initiative (GEMI). This tool also helps guiding the actions taken to mitigate the risks and to ensure an optimal use of water resources on the sites when necessary. Globally, the sites operated by the Group are not particularly exposed to water risk. By the end of 2019, out of the 22 priority sites identified, the level of water risk was assessed on 19 priority sites (14 Refining & Chemicals, 3 Exploration & Production, 2 Gas, Renewables & Power). The assessment of the 3 remaining sites were started in 2019 and will be achieved in 2020.</p> <p>Following this assessment, two sites were identified as being at risk but are not reported to the CDP as they are not exposed to a substantial financial related-water risk. The likelihood (no materialization of risks in the past years) and low magnitude (much less than 1% of the group revenues would be affected in total, even with very conservative hypothesis) of the water-related risks for those sites are not considered as having a « substantive impact ». As an example, at Normandy refinery, the direct operations are affected by water scarcity and the permit published by local authority could ask the refinery to reduce its water withdrawal in case of droughts. If a severe drought had occurred, the refinery should stop its operation during several weeks or months. Even taking 3 months into account, this will imply a lack of income of much less than 1% of Group income. For a long period of more than 6 months and several sites concerned, this could represent substantive impact for the Group.</p> <p>This analysis process is expected to be extended to other current priority sites, including two additional sites that have been identified from GRP</p> <p>When the LWT analysis confirms the risk of having water resources conflicts with local users, Total engages a water optimization process based on our inhouse software named "WAT R'USE". For example, on a solar panels manufacturing plant, the use of this methodology allowed saving 31% of the water footprint (from 2,1 Mm³ to 1,4 Mm³).</p> <p>Our analysis of the trend shows in the same time an increase in the water stress areas combined to a foreseeable decrease of our withdrawals in these areas. Consequently, we expect a stability in this number.</p>

(W1.2h) Provide total water withdrawal data by source.

Source	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	54,913	About the same	<p>Group activities, mainly Refining & Chemicals, and to a lesser extent Exploration & Production and the Integrated Gas, Renewables & Power segments, may potentially have an impact on water resources. Fresh water withdrawals are important to meet domestic needs of employees and for industrial uses. At refineries and petrochemicals sites, water is mainly used to produce steam and for cooling. Our fresh surface water withdrawals are quite stable in 2019, with a 0.8% decrease (55,370 in 2018). Rainwater is accounted since 2019 thanks to an improved accounting method. Wat-R-Use is our tool to collect data and calculate water footprint, within and beyond Total boundaries. Over 2017-2019, the tool helped save 31% of the intake water in Philippines, 28% in Malaysia.</p> <p>The situation should remain stable until 2030 in Europe mainly for GRP due to alternative sources of water supply and to the energy transition.</p>
Brackish surface water/seawater	Relevant	346,766	Higher	<p>Total's brackish surface water/seawater withdrawal has been higher in 2019 compared to previous year, with an 15.8% increase in absolute terms (299,383 in 2018). This has been consistently calculated through the group-wide reporting system HARPE. This increase is mainly due to higher brackish/seawater withdrawals in order to maintain reservoirs pressure over time. it is a vital use for the continuity of Total's operations. Non-fresh water withdrawals for Total's activities consist almost entirely of open ocean seawater, which is by essence an infinite resource, not conflicting with any other usage and thus not causing any water security issue. In the RC segment, brackish water/seawater is only used for once-through cooling purposes.</p> <p>Future trend: Brackish water use may not increase in the future.</p>
Groundwater – renewable	Relevant	13,874	About the same	<p>Total's groundwater withdrawal has been stable in 2019 compared to previous year, with a 4.4% decrease (14,505 in 2018). This has been consistently calculated through the group-wide reporting system HARPE and is mainly due to lower withdrawals for the refining activities. The MS segment accounts for a non-significant share of the Group's total withdrawal therefore its water withdrawal breakdown by source is not monitored.</p> <p>In the next 5 years, no significant change is expected for this source of water.</p>
Groundwater – non-renewable	Nor relevant			<p>Total does not consider Produced Water as groundwater and does not use non-renewable ground water, considering that this practice is not sustainable.</p>

Source	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Produced / Entrained water	Relevant	118,746	About the same	Produced water is brought to the surface during the production of hydrocarbons including formation water, flow-back water and condensation water. The extraction of hydrocarbons produces large volumes of water but depends on the age of wells: the oldest ones give more produced water. This indicator is directly linked to portfolio evolution. Smart, safe management of this produced water is both a business opportunity (treatment and recycling/reuse) and a regulatory necessity (compliance) to ensure a responsible approach towards local communities. The volumes of produced water and their discharge destination are accounted by E&P, including the share reinjected as part of the EOR process, and the share discharged to other water bodies. Total's produced water withdrawals are stable in 2019, with a 0.7% decrease (119,539 in 2018), due to comparable activity and portfolio levels in the E&P. The KPI is calculated through HARPE.
Third party sources	Relevant	45,117	About the same	A few major industrial refineries in Europe are quite fully depending on 3rd party water supply sources. Thus this source is very relevant for our activities. Water withdrawals from third-party sources (mainly municipal supply networks) have been stable in 2019 compared to previous year, with an 2% decrease (46,052 megalitres in 2018). It is mainly due to a stable level of activity and portfolio for the sites that depend to this water source. The trend should remain stable in the future.

(W1.2i) Provide total water discharge data by destination.

Please complete the following table:

Destination	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	56,654	About the same	It is relevant to Total's activities, especially due to cooling processes, whereby water is withdrawn and discharged back to fresh surface water bodies. Total's water discharge to fresh surface water has been quite stable in 2019 compared to previous year: -3,1% (58,490 in 2018). This is mainly due to a lower amount of water "used" (withdrawn and discharged) for cooling. On the short-medium term, there is no significant variation to expect.
Brackish surface water/seawater	Relevant	287,052	Higher	It is relevant to Total's activities, especially due to its offshore operations. Total's water discharge to non-fresh surface water/seawater has increased in 2019 compared to previous year: +12.5% (vs. 255,164 in 2018). For RC, this rise is mainly due to higher level of water withdrawn and discharged for cooling purposes. There is no foreseeable change expected in the future.

Destination	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Groundwater	Relevant	184,483	Higher	<p>Relevant for Total's operations due to high reservoirs pressure maintenance activities (and Enhanced Oil Recovery). Reservoir pressure maintenance and EOR are vital for O&G. Reinjection is also perceived as the best way to handle produced water and neutralize their possible impact to environment. Total does not consider Produced Water Reinjection as discharge to groundwater (not discharged to a water body) and does not discharge water to phreatic groundwater resources aside from this activity. Thus, the use of the term discharge to groundwater corresponds to discharge to Hydrocarbon reservoir. The figure of 184,483 megaliters/year includes non-fresh water used (withdrawn + discharged) for Pressure Maintenance. This volume is higher compared to previous year, with an 11.5% increase (165,377 in 2018) due to higher volumes of non-fresh water used for reservoir pressure maintenance.</p> <p>There is no foreseeable change expected in the future.</p>
Third-party destinations	Relevant	14,663	About the same	<p>It is mainly relevant for its onshore downstream activities which use in certain cases external waste water treatments (municipal or industrial). Total's water discharge to third party destinations has remained stable: -2,2% (vs. 14,997 in 2018).</p> <p>There is no foreseeable change expected in the future.</p>

Water intensity

(W-CH1.3) Do you calculate water intensity for your activities in the chemical sector?

No, and we have no plans to do so in the next two years

(W-OG1.3) Do you calculate water intensity for your activities associated with the oil & gas sector?

Yes

(W-OG1.3a) Provide water intensity information associated with your activities in the oil & gas sector.

Please complete the following table:

Business division	Water intensity value (m3)	Numerator: water aspect	Denominator	Comparison with previous reporting year	Please explain
Midstream / Downstream	0.13	Freshwater withdrawals	Barrel of Petrochemical products	About the same	<p>This metric is expressed in m³ of total freshwater withdrawal for the downstream activities (excluding once-through cooling water and rainwater), per Barrel of Petrochemical products (BBL). The intensity metric is 0.133 in 2019 (0.126 in 2018), corresponding to Water withdrawals of 62,628,792 of m3 for 2019 / Barrel of Petrochemical products throughput of 471,627,267 BBL in 2019. Both metrics are KPIs for Total and consistently measured and monitored. The ratio has remained stable due to comparable levels of activity and portfolio in the RC branch. This metric is observed and is subject to a very detailed benchmark, which helps review our strategy to reduce water intensity. And identifying possible margin for improvement or possible needs for innovative technology implementation. Total remains at the top of the best performers in the O&G sector. The benchmark is updated yearly to the management as appropriate.</p> <p>Best practice: Wat-R-Use tool is Total's tool to validate the cost models and calculate Water footprint. Total developed this tool with a multi criteria approach for direct and indirect Water footprint, evaluate ecotoxicity and take actions limiting water risk. It helps reduce our water use wherever possible, and without harm to the environment at site locations. Wat-R-Use tool is now for use within Total and outside, contributing to water efficiency within and beyond Total boundaries. The implementation of the R-use tool has saved significant amounts of intake water from solar panel manufacturing plants. Over the period 2017 to 2019, the tool has helped to save 31% of the intake water in Philippines, and 28% in Malaysia.</p> <p>There is no foreseeable change expected in the future.</p>

W2 Business impacts

Recent impacts on your business

(W2.1) Has your organization experienced any detrimental water-related impacts?

No

Compliance impacts

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

Yes, fines, enforcement orders or other penalties but none that are considered as significant

(W2.2a) Provide the total number and financial value of all water-related fines.

Please complete the following table:

Total number of fines	Total value of fines	% of total facilities/operations associated	Number of fines compared to previous reporting year	Comment
1	125,822	0	Higher	In 2019, the Total Austral subsidiary received a fine of 125,822 USD for exceeding the injection limits of water production. The Total Austral subsidiary has a permit limiting the water reinjected into the well. This fine corresponds to an exceeding value for the injection of production water into the well. This fine is not relevant as the fine corresponds to less than 0,001% of the Group income. This fine is due to an increase into produced water as a new well is now available for the affiliate to solve the issue. For this affiliate, 100% of produced water is now reinjected into these 2 wells, which enables them no further local onshore impact. This affiliate represents 0.6% of produced water reinjected into the E&P segment.

W3 Procedures

Potential water pollutants management procedures

(W-CH3.1) How does your organization identify and classify potential water pollutants associated with its activities in the chemical sector that may have a detrimental impact on water ecosystems or human health?

See our response to question W-OG3.1.

W-CH3.1a) Describe how your organization minimizes adverse impacts of potential water pollutants on water ecosystems or human health. Report up to ten potential pollutants associated with your activities in the chemical sector.

Please complete the following table:

Potential water pollutant	Value chain stage	Description of water pollutant and potential impacts	Management procedures	Please explain
Total's potential pollutants are Hydrocarbon (HC), COD, COT, heavy metals, phenols, BTEX and Polycyclic aromatic hydrocarbons (PAHs)	<ul style="list-style-type: none"> • Direct operations • Distribution network • Product use 	Total places strong focus on water pollution risk management, especially potential contamination by hydrocarbons, chemicals and cuttings. Total's potential pollutants are Hydrocarbon (HC), COD, COT, heavy metals, phenols, BTEX and Polycyclic aromatic hydrocarbons (PAHs). Impacts of pollutants mismanagement could include the alteration of local ecosystems and health impacts on local communities like toxicity (high HC content) or eutrophication induced by high nutrient content (chemicals) in discharge water. Produced water can contain high concentrations of salts, organic and inorganic chemicals, and naturally occurring radioactive material. All contaminants could possibly accumulate in the trophic levels of the food chain and ultimately threat human health.	<ul style="list-style-type: none"> • Compliance with effluent quality standards • Measures to prevent spillage, leaching, and leakages • Providing best practices instructions on product use • Providing best practice guidance to suppliers • Auditing supplier compliance to industry standards • R&D into less harmful alternative products 	See our response to question W-OG3.1

(W-OG3.1) How does your organization identify and classify potential water pollutants associated with its activities in the oil & gas sector that may have a detrimental impact on water ecosystems or human health?

POLLUTANTS: Total places strong focus on water pollution risk management, especially potential contamination by hydrocarbons, chemicals and cuttings. Total's potential pollutants are Hydrocarbon (HC), COD, COT, heavy metals, phenols, BTEX and Polycyclic aromatic hydrocarbons (PAHs). Impacts of pollutants mismanagement could include the alteration of local ecosystems and health impacts on local communities like toxicity (high HC content) or eutrophication induced by high nutrient content (chemicals) in discharge water. Produced water can contain high concentrations of salts, organic and inorganic chemicals, and naturally occurring radioactive material.

ANALYSIS: The approach implemented to identify and classify potential water pollutants relies on DREAM, as part of the E-RMS project involving O&G companies and Total. This technology implemented since 2001 models the EP segment discharges and identify potentially harmful pollutants to be reduced.

POLICIES: To manage the operational risks, the Group adopted a preventive and remedial approach putting in place centralized HSE and security management systems. TOTAL relies on the HSE division, part of the PSR division, whose President is a member of the EXCOM. The HSE division coordinates the implementation of the Group's HSEQ charter through One MAESTRO framework, based ISO 14001 standards.

FRAMEWORKS: Total refers in its water pollutants management both to regulatory and industry best practices. Regulatory frameworks can be national/supranational (REACH or SEVESO) or international conventions (Barcelona Convention or OSPAR). Total refers to industry best practices, from organizations including the IOGP, IPIECA, CONCAWE. Concawe intends to play an important role in developing sound science to address these issues for RC. Total RC participates in industrial working groups, to identify and anticipate potential dangerous substances contained in effluents, through studies, through extensive analysis campaigns, by asking the sites to respond to Surveys, to establish benchmarks and cross information from sites. Total has its own research centre with pilot rivers and is testing various methods to highlight the ecotoxicity of effluents.

PREVENTION PROCEDURES: The Group's internal requirements state that the environmental management systems of the sites must be ISO 14001 certified within 2 years of start-up: in 2019, 281 sites operated by the Group were ISO 14001 certified.

HYBRID BIOREACTOR: To protect biodiversity and the human environment, our R&D teams develop cutting-edge technologies, such as BIOMEM, a highly innovative biological treatment process that eliminates the toxicity of produced water by using microorganisms. This "ultra-High-Performance Biological Treatment Process for Produced Water" has recently been patented. Since 2017, we made an evaluation for an implantation at facilities of O&G industry to reduce Hydrocarbon, COD and micro pollutant concentrations. We succeeded in higher removal performance of COD in presence of packing material. In 2018 Total made a BIOMEM technology assessment with positive results. BIOMEM has been installed for test in Gabon and Bolivia in 2019.

METRICS: Total's target is to maintain hydrocarbon content of water discharges below 30 mg/l for offshore sites (100% achieved since 2016) and 15 mg/l for onshore and coastal sites (100% achieved since 2019).

VALUE CHAIN: As to its value chain, water pollution risks are part of the parameters integrated in Total's suppliers' assessment, especially through the identification of those with production sites in Ramsar (wetland) protected areas, which are paramount importance areas for water natural reclaim and resource. Total procedures also require that purchased chemicals be selected to minimize toxicity, bioaccumulation and persistence in the environment to protect both environment and human health. Total engages with its clients on water pollution risks through labelling information on its products, by providing regulatory end-of-life information. The Group is approaching industrial recognised experts to capitalize on the momentum of expertise and the partnerships forged with the major water treatment companies make it possible to create an integrated water management system, both upstream and downstream. With all partners, a technical brief is defined on water treatment parameters. The objectives apply both to water withdrawals, the treatment of produced waters and to the water discharges. TOTAL's water treatment suppliers must commit to controlling chemical products injection, to monitoring the levels of legionellosis but also to following and avoiding all potential pollutions in rejected waters.

In 2018, two audits were carried out on two different sites. A reflection is carried out on the optimization of the recirculation of water and the conformity of WWTP on the levels of BTX pollutants. A roadmap will be defined to make standard certain virtuous practices.

(W-OG3.1a) How does your organization identify and classify potential water pollutants associated with its activities in the oil & gas sector that may have a detrimental impact on water ecosystems or human health?

Potential water pollutant	Business division	Description of water pollutant and potential impacts	Management procedures	Please explain
Hydrocarbons	<ul style="list-style-type: none"> • Upstream • Midstream / Downstream 	<p>Hydrocarbons are organic compounds that naturally occur in crude oil. If massively released to the environment (during production, transport or refining) through water discharge or accidental spills, hydrocarbons can significantly impact natural environments (both fauna and flora). The scale of impacts generated can vary depending on the volume of hydrocarbons discharged and can go from very localized impacts for minor spills to major environmental impacts for large oil spills. Chronic potential impacts related to hydrocarbon releases in effluents are possibly reaching an Environmental Impact Factor (EIF) above 10,000 according to Norwegian Continental shelf (NCS) standards. Among potential impacts it can noted: fishes, benthic fauna, plankton, invertebrates mortality, reproduction adverse effects, physical contamination of sediments including river banks, shoreline and soil, long term chronic effects on endocrine systems or reproduction.</p>	<ul style="list-style-type: none"> • Compliance with effluent quality standards • Measures to prevent spillage, leaching, and leakages • Community / stakeholder engagement • Emergency preparedness 	<p>The risk of having a significant detrimental impact over the natural environments is monitored through a yearly target of maintaining the hydrocarbon content of the water discharge below thresholds (15 mg/l for onshore/coastal sites and 30 mg/l offshore). 100% of the Group's oil sites have met the target for the quality of onshore discharges since 2016 and 100% of the Group's oil sites for the quality of offshore discharges in 2019. This worldwide group objective is complemented by risk analysis based on the DREAM model to implement extra treatment measures. The performance is actually much better than the objective for coastal downstream sites: 1 mg/l. Total's approach combines thresholds and risk analysis and treatment systems are adapted to pollution risk reduction. Sites from RC monitor their water effluents in a regular basis (daily for some pollutants), and monthly performance is screened by headquarters.</p> <p>All risks related to HC are under detailed scrutiny and well controlled. The risks of soil and water pollution to Total's operations come mainly from accidental spills and waste storage. 100% of the 128 sites benefit from a spill contingency plan, those sites whose risk analysis identified at least one risk of major accidental pollution to surface water (70 E&P and 15 RC). The Group has drawn up a guide to prevent and contain this pollution based on 4 pillars:</p> <ul style="list-style-type: none"> • preventing leaks, by implementing, industry best practices in engineering, operations and transport; • carrying out maintenance at appropriate frequency to minimize the risk of leaks; • overall monitoring to identify any soil and groundwater pollution; and • managing any pollution by means of containment and reduction or elimination operations. <p>This system is supplemented by requirements of the One MAESTRO framework. In accordance with industry best practices, Total also monitors accidental liquid hydrocarbon spills of more than one barrel. In 2019, 91% of the sites concerned by an oil spill risk on surface waters had carried out at least one exercise with equipment deployment to test their preparedness and readiness to intervene.</p> <p>VALUE CHAIN: Position papers are established jointly between the HSE teams and the Division's strategy department. Documents are exposed to the Management Committee of the Branch or even to the EXCOM, to verify if they are in line with the Group's stated objectives.</p>

Potential water pollutant	Business division	Description of water pollutant and potential impacts	Management procedures	Please explain
Chemicals	<ul style="list-style-type: none"> Upstream 	<p>Total's activities may potentially be located in sensitive natural environments. The Group is fully aware of this challenge and takes biodiversity and ecosystems into account in its reference frameworks, the founding element of which is its Safety Health Environment Quality charter, as well as in projects and operations. Chemical products are mostly used by Exploration and Production activities. However, the group's management norms are applicable for all of its activities. This includes sludges, drilling fluids, etc. Mismanagement of chemicals can lead to harmful products being released into the environment. This can affect local ecosystems, both in terms of fauna (e.g. toxic products' impact on biodiversity) or flora (e.g. lower soil fertility). The scale of impacts generated can vary depending on the volume of chemicals discharged and can go from very localized impacts for minor chemical discharges to significant environmental impacts for large chemical mismanagement events (pollution of water resources for instance). The scale of impacts generated can vary depending on the volume of hydrocarbons discharged and can go from very localized impacts for minor spills to major environmental impacts for large oil spills. Chronic potential impacts related to hydrocarbon releases in effluents are possibly reaching an Environmental Impact Factor (EIF) above 10.000 according to Norwegian Continental shelf (NCS) standards.</p>	<ul style="list-style-type: none"> Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages Community / stakeholder engagement Emergency preparedness 	<p>Group's internal rules require that impact assessment taking into account biodiversity and ecosystems to be carried out and action be taken if necessary. In 2018, and within the framework of the Act4Nature initiative, the Group made 16 biodiversity commitments. A review of the actions already been performed on the first three priority commitments was made in 2019. For the management of chemical products, Total refers to both relevant regulatory norms (such as the CLP and REACH at European level) and industry best practices. The ISO 14001 principles are implemented at group level in company rules (for toxic products storage and confinement for instance) and cascaded at site level as well. Total implements Environment Management Systems taking chemicals into account from the selection/supply step until the disposal step. For the latter return to the supplier is even considered as priority. These principles are set in the environmental management system MAESTRO, which details the HSE management principles (ISO 14001 standards). This is completed by specific documents for the management of the different categories of potential pollutants (sludge, drilling fluids, chemicals storage, guide on polluted sites and soils, accident management, guide to prevent local population water pollution etc.). DREAM modelling is also applied to maintain Environmental Impact Factors (EIF) related to the discharge of certain chemicals through produced water as low as possible and anyway at an acceptable level. Total is also applying a very stringent policy for the drilling fluids, in order to avoid detrimental chemical discharge. Chemicals are also present in hydrotest water (water used to test pipelines). Total has put in place specific procedures to limit as much as possible the use of chemicals during those tests and based on a risk approach, to achieve zero harmful impact related to the discharge of those fluids. For its chemical supply, Total applies environmental criterion pertaining to ecotoxicity, bioaccumulation and biodegradation to select the most environmentally friendly chemicals and at the end of the value chain, ensures a proper disposal of chemicals with the lowest environment impact.</p>

Potential water pollutant	Business division	Description of water pollutant and potential impacts	Management procedures	Please explain
Cuttings	<ul style="list-style-type: none"> Upstream 	<p>Drill cuttings are the broken bits of solid materials removed as part of O&G wells drillings. Improper disposal of the resulting waste can lead to water pollution, especially at offshore sites. The scale of impacts generated varies depending on the volume and nature of mismanaged cuttings, and the sensitivity of the sediment community (benthos). Shannon-Winner indexes (an indicator of local biodiversity) could be significantly affected and get much lower than 2 by improper release of high hydrocarbon content drilling wastes or if the chemical content of released cuttings is inappropriate. Also the physical impacts (burial, light barrier) on water-borne communities must be taken into account.</p>	<ul style="list-style-type: none"> Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages Community / stakeholder engagement Emergency preparedness 	<p>Cuttings are subject to the same risk assessment approach as chemicals and Hydrocarbons. In certain countries Total applies a “zero discharge” policy, particularly for drilling waste (drill cuttings) which are brought back to shore and treated appropriately to avoid any discharge to the sea. When a part of drilling waste is released to the water column (mostly water-based mud cuttings) Total implements a water column and sediments monitoring program every 3 years in order to monitor possible impacts during the whole life of the field. As an example, in Angola Total was a leader in the organisation of the regional monitoring survey in close collaboration with Ministry of Petroleum. At this occasion, Total brought experts from other affiliates like Norway to share the experience acquired for years on cuttings effects measurements. Total also uses the PARTRACK model to assess the impact of the cutting's particles on the water column and this is used to design properly the drilling sequences and reduce the impacts on water column as much as possible. For nearly 20 years (even before 2001) Total has engaged in different programs assessing and reducing drilling waste impacts on water column and has now a strong set of tools and practices that are shared in the 130 countries where Total has operations.</p>

Risk identification and assessment procedures

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Please complete the following table:

Value chain stage	Coverage	Risk assessment procedure	Frequency of assessment	How far into the future are risks considered?	Type of tools and methods used	Tools and methods used	Comment
Direct operations	Full	Water risks are assessed as part of an enterprise risk management framework	More than once a year	> 6 years	<ul style="list-style-type: none"> • Tools on the market • Enterprise Risk Management • International methodologies • Databases 	<ul style="list-style-type: none"> • GEMI Local Water Tool • WRI Aqueduct • ISO 31000 Risk Management Standard • Environmental Impact Assessment • Life Cycle Assessment • IPCC Climate Change Projections • Regional government databases • Internal company methods • External consultants • Other: PROTEUS, ISO 14046, GRMC, SRM+, ERASM (Internal risk assessment tool), CORISK 	<p>The Group implements a global risk management system that relies on a continuous process of identifying and analyzing risks in order to determine those that could prevent the achievement of Total's goals. The specificities of the Group's activities incur environmental risks, for which Total has developed a structured management policy. Our main environmental challenges:</p> <ul style="list-style-type: none"> • preventing risks of accidental pollution • limiting environmental footprint by managing energy consumption, emissions in natural environments (water, air, soil) and use of natural resources • managing impacts to biodiversity and ecosystems during projects and operations especially in sensitive natural environments • limiting production of residual waste by supporting the circular economy. <p>The ExCom, along with the Group Risk Management Committee, is responsible for identifying and analysing risks that could impact the achievement of the Group's objectives. Risk mapping, carried out since the 2000s, is a dynamic process. Water resources management is evaluated and monitored during Risk Committee (CORISK) meetings. Water-related risks are systematically evaluated as part of projects' Environmental Impact Assessment (EIA) in their prospect and design phases Life Cycle Assessment (LCA) as a decision-making Tool.</p> <p>EIAs are systematically used for projects and enable to give information to ExCom through the CORISK. WRI Aqueduct and the Local Water Tool are systematically used according to the strategy described.</p>

Value chain stage	Coverage	Risk assessment procedure	Frequency of assessment	How far into the future are risks considered?	Type of tools and methods used	Tools and methods used	Comment
Supply chain	Full	Water risks are assessed in an environmental risk assessment	More than once a year	> 6 years	<ul style="list-style-type: none"> • Tools on the market • Enterprise Risk Management • International methodologies 	<ul style="list-style-type: none"> • GEMI Local Water Tool • IPIECA Global Water Tool • WRI Aqueduct • Life Cycle Assessment • Internal company methods • Other: PROTEUS, ISO 31000, ISO 14046, GRMC, SRM+ 	Total's supply chain doesn't include water intensive products such as agricultural or mining commodities but supply chain water risks are assessed where relevant. The raw materials (oil) from the Total's EP branch are assessed for water risks using the Local Water Tool and Aqueduct (BWS) tools. For the rest of suppliers, their production locations are subject to investigations (indirect and possibly direct) to identify those production areas likely to cause a risk to a protected wetland (Ramsar area). If such a risk is deemed significant, further investigation is done to properly characterize it.
Other stages of the value chain	Full	Water risks are assessed as part of an enterprise risk management framework	More than once a year	> 6 years	International methodologies	<ul style="list-style-type: none"> • Environmental Impact Assessment • Life Cycle Assessment • IPCC Climate Change Projections • Internal company methods • External consultants 	The Group complies with regulatory requirements to minimize risks associated with petroleum or chemical products marketed by Total throughout their life cycle. The Group has defined minimum requirements that apply to the marketing approach of its products sold worldwide to reduce potential risks to consumer health and to the environment. They include the identification and assessment of risks inherent to a product and its usage, as well as the provision of information to consumers. The material safety data sheets (MSDS) that come with products marketed by the Group and product labels are two key sources of information. The RC and MS teams draft the material safety data sheets, compliance certificates and manage REACH registration where necessary. Governance of the process is completed within Subsidiaries by the designation of a product officer to monitor compliance of the market release of entity's products. The conformity of the marketing

Value chain stage	Coverage	Risk assessment procedure	Frequency of assessment	How far into the future are risks considered?	Type of tools and methods used	Tools and methods used	Comment
							process is ensured by the Subsidiary. Total's products impact on water generally speaking is assessed in accordance with different standard practices: i.e. all chemicals sold by Total including crude oil, lubricants, Bitumen, etc. are supplied with a regulatory MSDS notably dealing with water related environment risks like toxicity to aquatic organisms, persistence in water, bioaccumulation factors, in compliance with REACH and CLP regulations.

(W3.3b) Which of the following contextual issues are considered in your organization's water-related risk assessments?

Contextual issue	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	<p>The Group's activities, mainly RC, and to a lesser extent those of the E&P and the GRP segments, may potentially have an impact on water resources, especially when located in a water resources sensitive environment. Total has implemented the following water risk management principles:</p> <ol style="list-style-type: none"> 1. monitor water withdrawals to identify priority sensitive sites and then carry out a risk assessment; 2. improve the water resources management depending on identified needs, by adapting the priority sites' environmental management system. <p>Total considers this issue as highly relevant across all of its operations and value chain as water supply can be critical for certain operations like open loop cooling. In order to identify its facilities exposed to the risk of water stress, Total records the withdrawals and discharges at all operated relevant sites and assesses volumes based on the water stress indicators of the WRI Aqueduct tool. Currently, 9.3% of fresh water withdrawals take place in a global water stress area. For these sites and with withdrawals over 500,000 m³ per year, Total assesses water resources risk levels using the LWT for Oil & Gas from GEMI. This tool helps guide the actions to be taken to mitigate the risks and to optimize the use of water resources at the sites when necessary. This risk assessment concludes that the risk of usage conflict with other water users is extremely limited. The regular update of LWT assessments is essential to ensure that water management is aligned with any changes in water resources availability (including from Climate Change). This is seen as a potential key risk for Total's future activities relating to water (mainly for RC). The LWT results consider Climate Change as an externality, although challenging to quantify (thus the need for robust monitoring and updating of the Local Water Tool to allow for adaptive management at the site level). We have been able to develop a range of different future risk profiles and identify that stakeholder conflict creates a bigger risk than water availability under certain conditions. We use information gathered by our operational and EHS managers using HARPE. Current water availability is annually reported at Group level to fulfil Group's requirements. Total's strategy for estimating future changes in water availability on a local level relies on site monitoring and water risk management strategy (sites screening, Local Water Tool, valuation).</p>

Contextual issue	Relevance & inclusion	Please explain
Water quality at a basin / catchment level	Relevant, always included	<p>Total's activities may potentially be located in sensitive natural environments. The Group takes biodiversity and ecosystems into account in its internal standards, in its Safety Health Environment Quality Charter. Total doesn't require high quality water for most of their operations. However, Total continuously monitors their effluents quality, over which Total has set public targets. This is done in order to ensure a lower level of risks and as a precautionary measure in order to face any legal compliance issue. We use information gathered by operational and EHS managers using HARPE. All the activities use this group-wide reporting system and environmental reporting covers all operated activities. HARPE allows the sites to collect and report on 32 water quantity and 80 quality indicators. Current water quality is annually reported at group level, which fulfils the group's annual reporting requirements. HARPE includes the calculation of aggregated KPIs. It refers to international norms as ISO14001. Both water withdrawals and discharges are subject to quality monitoring at local (site) level, and therefore part of the group-wide water risks assessment. The same process is conducted at site level to meet local regulatory requirements. This information is then used in our risk assessment tool, the LWT from GEMI, for each site where the withdrawals are over 500 000m3 per year. The results of the LWT risk assessment enable to identify the sites where action plans are needed to decrease impacts on water. The progress of those action plan is followed-up locally. Through these analyses, we can anticipate the future issues and take any decision necessary at basin level to maintain and restore biodiversity. For new facilities, internal standards require to conduct an impact assessment taking into account biodiversity and ecosystems and the implementation of actions if necessary. For existing facilities, the Group recommended to its Subsidiaries that avoid-reduce-restore-compensate steps be taken. To make this policy more tangible, in July 2018, and within the framework of the Act4Nature initiative, the Group made 16 biodiversity commitments. These are described in the biodiversity brochure available on the website sustainable-performance. total.com. There are 10 general commitments common to all of the signatory companies and an additional six commitments specific to Total, some of which existed before the initiative.</p>
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	<p>Total sets up dialogue procedures based on the consultation and engagement of stakeholders to develop constructive and transparent relationship. The One MAESTRO framework requires that subsidiaries must establish a structured and regular dialogue process with their stakeholders to dialogue and treat their concerns and expectations, to report on mitigation actions or compensation, to measure their satisfaction and to identify means of improving their societal policy. The Group framework requires the implementation of operational procedures to handle grievances by providing local communities with a preferential, rapid and simple channel to voice their problems and grievances. The Group's local entities handle these grievances in order to offer an appropriate response to anyone who feels that they have suffered damage as a result of the activity and to improve internal processes in order to reduce nuisances or impacts that may be caused by the activities.</p> <p>Total considers as being key water stakeholders, those with whom we share the water resources or who may be affected by potential pollution events. We use an analysis of future water availability/quality as proxy indicator to assess areas already identified as potential hotspots. In accordance with Total's framework on societal matters, stakeholders are identified, mapped and prioritized according to their levels of expectations and involvement. A structured dialogue with stakeholders is established and maintained at local level and at central level. Since 2006 Total has deployed its internal Stakeholder Relationship Management Tool (SRM+). This tool helps identify key site stakeholders and to schedule consultation meetings to better understand their expectations. This approach allows to define action plans and to take into account local development needs to build a long-term relationship. The system is supplemented by a network of mediators with local communities to maintain a constructive dialogue with neighbouring communities. For the sites identified as priorities, the risk assessment performed through the Local Water Tool includes local reputation and social activism parameters. Through Total's SRM+, trends analysis is conducted to identify potential future stakeholders' conflicts at local level. Grievance mechanisms have also been set, in order to anticipate potential conflicts. Total closely monitors its media and NGO coverage. Each entity has a dedicated workforce to manage stakeholder relations.</p>

Contextual issue	Relevance & inclusion	Please explain
Implications of water on your key commodities / raw materials	Relevant, always included	<p>Consumption of raw materials is to nearly double by 2060 and will mean a steep increase in emissions of the GHG. Without action to address these challenges, the projected increase in the extraction and processing of raw materials such as biomass, fossil fuels, metals and non-metallic minerals is likely to worsen the pollution of air, water and soils, and contribute significantly to climate change (OECD). In 2019, Total's worldwide GHG from the oil and gas facilities amounted to 41.5 million tons of CO₂e, which is less than 0.1% of the global emissions. Total implemented a strategy to tackle climate change challenges and since 2013, a Group directive has defined the requirements to be met at operated sites using more than 50,000 tons of oil equivalent per year of primary energy (40 sites). The aim is to ensure that 100% of these sites have an auditable energy management system, based on ISO 50001 standard. The Group's target is to improve the energy efficiency by an average of 1% per year.</p> <p>Present in +130 countries, the Group currently works with a network of +100,000 suppliers of goods and services. In 2019, the Group's purchases of goods and services (excluding petroleum products and vessel chartering by Trading & Shipping) represented approximately \$26 billion worldwide: 31% for goods and 69% for services. Total's main commodities are oil and gas, essentially supplied internally by its EP segment. The application of risk management processes such as the LWT and the use of internal company knowledge directly assesses the link with water on raw materials.</p> <p>Total produces and markets biofuels partly produced from agricultural raw materials. All biofuels incorporated by the Group in Europe are certified as sustainable according to European Union criteria (ISCC EU type certification). These certification criteria include a review of sustainability and traceability of the oils (carbon footprint, no deforestation, protection of soil, water and air, respect for human rights). Those criteria apply to the entire production and distribution chain of sustainable biofuels and were strengthened in 2019 as part of the revision of the Directive RED2. In 2019, Total started up the La Mède biorefinery in France that will produce biofuels from vegetable oils (rape, palm, etc.), waste and residues. The compliance with the sustainability criteria of the oils processed is established by an ISCC certificate that palm oil suppliers must obtain.</p>
Water-related regulatory frameworks	Relevant, always included	<p>To ensure water security and a zero-carbon future, regulators are taking action worldwide to drive a transition away from pollutions. The existing and potential regulatory frameworks for water withdrawals, discharges, tariff changes, water costs, licensing of operations and drought management plans are key for Total's activities. Our activities are subject to laws and regulations pertaining to the environment, health and safety. In countries where the Group operates, particularly in Europe and the United States, sites and products are subject to stringent laws governing the protection of the environment (including water) and health (occupational safety and chemical product risk, etc.). Product quality and consumer protection are also subject to increasingly strict regulations. Total's entities ensure that their products meet applicable specifications and all applicable consumer protection laws. Failure to do so could lead to personal injury, property damage, environmental harm and loss of customers, which could negatively impact Total's financial condition and reputation. Local regulations and water tariffs are likely to affect the continuity of Total's operations and are tracked and monitored by affiliates (in particular for the refining and chemical segments, generally located in developed countries with water pricing). For the sites identified as priorities, the risk assessment performed through the Local Water Tool includes current water regulatory frameworks and water tariffs parameters. Total monitors potential regulatory changes at corporate, affiliates and sites levels. It is expected that local legislation will be reviewed to reflect the growing need for strong water management in these areas. As part of the company annual LT plan exercise, the potential impact of future regulatory changes on Total's CAPEX is yearly assessed. The future potential regulatory changes upon water are embedded in Total's risk assessment process. The European Water Framework Directive (2000/60/EC) aims to achieve good ecological status in water bodies of member states. Total produces and markets biofuels partly produced from agricultural raw materials and the production in Europe is certified as sustainable ISCC EU type certification according to the criteria required by the European Union. This certification imposes criteria of sustainability and traceability of the oils (carbon footprint, non-deforestation, proper soil and water use, respect for Human Rights).</p>

Contextual issue	Relevance & inclusion	Please explain
Status of ecosystems and habitats	Relevant, always included	<p>The Group is preventing risks of accidental pollution; limiting its environmental footprint, emissions in natural environments and use of natural resources; managing impacts to biodiversity and ecosystems especially in sensitive natural environments. Total uses the ground surface to safely conduct its industrial operations and, in 2019, did not make extensive use of ground surfaces that could substantially conflict with various natural ecosystems or agriculture. As per our water policy, the impact of Total's activities on ecosystems and habitats are systematically assessed by Environmental Impact Assessment studies. Improper discharges of water could create ecosystems imbalance, reduce the availability of ecosystems services and finally create relationship issues with local communities making our operations unsustainable. Total identifies risks levels for sites withdrawing more than 500,000 m³/year which are located in areas exposed to water resource risks using the Local Water Tool (LWT). LWT includes current local ecosystems and watershed ecosystems parameters with focus on protected wetlands (Ramsar). Estimates of potential changes in the status of ecosystems and habitats at local level are parameters included in LWT assessment for priority sites. Total's Geographical Information System (HSEQ maps) provides monthly updates on ecosystems and habitats status and some future protected areas, through a MOU with UN-Environment -WCMC program PROTEUS. Additionally Total has developed its own leaking well head capping system ("Subsea Emergency Response System") to stop potential eruptions in drilling or production operations as quickly as possible. In France, a project launched with the academic sector to develop the use of skate egg capsules washed up on the coast to estimate the estimated enumeration population as well as to assess the genetic health of the populations of these species. In Congo, a 50 K€ partnership with the NGO Renatura concluded to supporting 500 fishermen to applying the regulations in force, proposing alternatives in terms of fishing practices, likely to reduce accidental catches of sea turtles and thus allow better regeneration fishery resources. In Italia, a 30 K€ project launched for the protection of amphibians and water points of the Park forest areas, in partnership with the regional Park 'Gallipoli Cognato' in a protected area near our sites.</p>
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	<p>The Group defines the risk of a severe impact on safety, health or the environment as the probability of Total's Activities having a direct and significant impact on the health or safety of employees of Group companies, employees of external contractors and third parties, or on the environment following a large scale pollution or a pollution impacting a sensitive natural environments. Total has developed regular safety, health and environment risk assessment procedures and tools applicable to operate its Activities at various levels (Group, activities and/or industrial sites): prior to investment decisions in industrial projects of the Group, acquisition and divestment decisions; during operations and prior to releasing new substances on the market. Total ensures the Health and Safety of all our employees, and also as part of our corporate responsibility to respect and ensure implementation of the human rights to water and sanitation. The Group ensures that it complies with strict safety, security, health and environment standards in the performance of its Activities. The Safety Health Environment Quality Charter sets out the principles that apply to the conduct of its operations in all of the countries where it operates. As such, the Group's Subsidiaries implement a framework incorporating occupational health and safety, security, societal commitment and environment as well as associated management systems (MAESTRO). Total's global activities make the provision of services aligned with WASH guiding principles extremely relevant for its workforce, and therefore these aspects are closely monitored and part of the Group's regular audit processes. Total is committed through its code of conduct and the 2015 Industrial agreement signed by the CEO to respect the ILO convention which requests employers to provide employees with adequate work conditions, including access to potable water, toilet facilities. Some audits are conducted every year on these aspects with Goodcorp since 2002. Each year, a steering Ethics committee chooses the affiliates to be audited according to the results of the former audits and their experiences and knowledge of these affiliates. The audits last an average of 10 days, during which the WASH services are audited for our employees but also for our subcontractor's employees. A non-conformity to our ethics rules would imply an action to resolve it. This process enables Total to continuously progress on this topic.</p>
Other contextual issues, please specify	Not relevant, explanation provided	No further contextual issue has been identified as relevant for Total's operations.

(W3.3c) Which of the following stakeholders are considered in your organization’s water-related risk assessments?

Please complete the following table:

Stakeholder	Relevance & inclusion	Please explain
Customers	Relevant, always included	<p>In the coming decades, demand for energy will grow faster and the contribution of renewables and gas to the production of electricity shall therefore play an essential role in the fight against climate change. Helping customers improve their energy efficiency also offers opportunities and forms part of a trend that will be accelerated by digital technology. Our strategy is to increase the distribution of energy products, particularly in high-growing regions, and offer innovative solutions and services that meet the needs of customers above and beyond the supply of petroleum products. Total intends to innovate in order to provide them with new products and services that will support energy options and new usages. The promotion of hybrid solutions combining hydrocarbons and renewable energies is part of this approach. Similarly, services can be offered to optimize energy and water use for industrial sites. Ecosystems, and forests in particular, store carbon naturally. Consequently, their conservation and the restoration of their role as carbon sinks are crucially important in the fight against global warming. Due to emerging customers behaviors and increased sustainability awareness, Total is attentive to customers’ expectations, and particularly to the fact that customers are sensitive to the production process related to the products sold by Total. Water consumption and intensity metrics associated to those products are under the scrutiny of our customers. In order to secure and sustain the products sales, Total engages with its customers upon its responsible management of water resources through internal and external certifications, such as Total Eco Solutions products, Ecovadis certification, site ISO14001 certifications, “cradle to cradle” certification for renewables. This is particularly relevant for our Lubricant products lines and also for the B2B fuel sales (specific customers requirements). The Group is also pursuing its growth in the car wash market through its Total WASH brand. These offers support customers in their mobility by providing them with all of the products and services they need at “One Stop Shop” service stations. Created to impact positively on water resources and to create shift in consumer preferences, the car dry washing solutions are also impactful to adapt to local water stress conditions. Total Carwash systems in France are indeed partly fitted with water recycling/reuse units.</p>

Stakeholder	Relevance & inclusion	Please explain
Employees	Relevant, always included	<p>Health, safety and the environment (HSE) have long been the object of specific attention at Group level. Given their nature, the Activities give rise to health and safety risks for the Group's employees, the personnel of external contractors, and residents in the vicinity of industrial sites. As primary stakeholders and key to Total's interests, employees are considered regarding potential risks linked to water. Main employee-related risk would be discontinuity of operations (lack of freshwater availability for instance). Through the ISO14001 EMS, employees are able to report on water-related risks. The identified risks are then assessed internally via the EMS management to determine best management solutions. The compensation structure of the Group's employees is based on a base salary and on a merit-based salary to compensate employees' individual performance according to targets set during the annual individual review, including at least one HSE (Health, Safety, Environment) target; and an individual variable compensation starting at a certain level of responsibility, which is intended to compensate individual performance (quantitative and qualitative attainment of previously set targets), managerial practices, if applicable, and the employee's contribution to collective performance evaluated, in particular, according to HSE targets set for each business segment, which represents up to 10% of the variable portion. In 2019, 86.6% of the Group's entities (WHRS scope) included HSE criteria in the variable compensation.</p> <p>Employees' health (SDG3): this means, guaranteeing the safety of its employees and stakeholders, its installations and products. Total's goals: To be recognized as a reference in the area of safety within its industry and to achieve a zero fatal accident rate.</p> <p>Employee training (SDG4): The strength of the Total lies in the diversity and talents of more than its 92,000 employees around the world. Accompanying our employees in skills adaptation process is a guarantee of responsibility.</p> <p>Equal remuneration (SDG5): Total is committed to applying the principles of the fundamental conventions of the International Labor Organization (ILO) regarding human rights in the workplace.</p> <p>Finally, water risks are specifically taken into consideration in light of climate change consequences for employees regarding: access to water for domestic purposes and access to work sites in case of water levels rises.</p>
Investors	Relevant, always included	<p>Members of the Group's General Management and Investor Relations regularly meet with institutional investors and financial analysts in the leading financial centers throughout the world. In 2019, the Group organized more than 1,000 meetings. With a dedicated team, the Group maintains an active dialogue with shareholders in the field of Environment, Social, and Governance (ESG). More than 100 meetings covering these themes were organized in France and worldwide in 2019. The Annual Shareholders' Meeting was held on May 29, 2019, and attended by nearly 2,000 people. The growing concern of certain stakeholders with regards to environmental issues could also have an impact on certain external financing of the Group's projects or influence certain investors involved in the oil and gas sector. Total's investors are involved in the company's strategic decisions, especially through AGM voting, and are thus key to the business continuity. The main risk for this category of stakeholders is to affect Total's access to capital markets. In addition to CDP disclosure, Total's Registration Document contains a specific chapter on water management that provides transparent information on the Group's most material subjects including water. Total also discloses its environmental information, including water-related KPIs, to the Global Compact initiative, the CDP and numerous rating agencies, such as but not limited to S&P-SAM (DJSI), Sustainalytics and GRI. More broadly, Total's transparency towards financial markets means that investors' appreciation of the potential water risks affecting Total, and therefore their perception of Total's resilience, is constantly taken into account. Total also proactively participates in the elaboration of environmental norms for the financial sector (IFC EHS guidelines for Oil & Gas for instance).</p>

Stakeholder	Relevance & inclusion	Please explain
Local communities	Relevant, always included	<p>Total engages in dialogue with stakeholders who are identified, mapped out and organized by level of priority according to their expectations and degree of involvement, using internal Stakeholder Relationship Management (SRM+) methodology. The outcome is the definition of action plans to manage the impacts of activities and consider local development needs, in order to build a long-term relationship based on trust. SRM+ tool allows the Subsidiary to explain its activities to communities and other stakeholders, and to single out potentially vulnerable local populations. It has been deployed in almost all Subsidiaries. Several Subsidiaries within the Exploration & Production segment also have in place a network of mediators with local communities, with a view to maintaining a constructive dialogue with neighboring communities. These mediators act as Community Liaison Officers (CLO) and are tasked with establishing an ongoing dialogue with stakeholders on the ground (Stakeholder Engagement), including local authorities and communities and, more broadly, local players in civil society. CLOs are employed by Total, sometimes from the local communities, speak the local languages and understand the local way of life. They play a decisive role in establishing good relations between Total and its stakeholders and pay close attention to the most vulnerable populations.</p> <p>Total implements local grievance mechanisms to engage with local communities and anticipate conflict risks. Total is assessing risks generated by the activities that might have consequences for the health of local communities, their means of subsistence and their access to vital services such as drinking water. For certain projects, a net positive water impact has thus been generated through the production of extra quantities of desalinated water that is then given for free. In Bolivia, the project for the Gabon well construction has been done at Aguada Gande community. The initiative helps improve the knowledge in water management in 2 communities impacting 900 people. In Tunisia, a partnership with 'La Saison Bleue' has been concluded and undertake several players of civil society with the support of the French Embassy in Tunisia. The initiative aims to raise awareness of the risks of pollution and degradation of the Tunisian coast. The federative awareness pedagogy went through the implementation of a series of cultural and economic events on several sites which an impact on 1000 participants.</p>
NGOs	Relevant, always included	<p>Built on constructive dialog, the involvement of stakeholders bears witness to the Group's will to build trusting, long-term relations. The long-term future of societal projects is guaranteed by partnerships with local institutions and organizations. Total cooperates directly with the local authorities in all its actions and collaborates with NGOs that have experience in the field. First and foremost, the projects address the issues of local development and solidarity and favor cooperation and skills development. The Civil Society Engagement division manages relations between the Group and civil society, represented notably by non-governmental organizations (NGOs), as well as large institutions and multilateral agencies (e.g. Global Compact). NGOs are consulted through the SRM+ stakeholder relationship management system, and hence potential risks linked to water are factored in Total's water risks assessment (such as brand reputation damage or litigation for instance). Total engages proactively with NGOs through several local partnerships (e.g. GIZ in Uganda, in order to support local communities water resources protection). Where relevant, Total has implemented local grievance mechanisms to engage with local NGOs and anticipate conflict risks. Refining & Chemicals has set up structures for dialogue and exchanges with local stakeholders (such as the Community Advisory Panels in the United States or the special local commissions on some European platforms). In 2018, the Feyzin site celebrated the tenth anniversary of its residents' Conference, which organizes quarterly exchanges with area residents, NGOs and the local authorities. Open days are also organized on the occasion of the inauguration of new facilities or of site anniversaries, for example at the Lindsey (United Kingdom), Port Arthur (United States), Carling (France) and Antwerp (Belgium) platforms. These events are ideal opportunities to maintain dialogue and build trusting relations.</p>

Stakeholder	Relevance & inclusion	Please explain
Other water users at a basin / catchment level	Relevant, always included	<p>The local societal team is made up of more than 100 persons, engaged in the different neighboring communities, including a CLO network which has an excellent local relationship with neighbours at the basins. A grievance mechanism has been put in place. Given the important volumes of water required for Total's activities (especially in the RC segment), maintaining a constructive dialogue with other water users at a local level is essential. The use of the SRM+ stakeholder management system, and the implementation local grievance mechanisms allow Total to engage with other local water users and anticipate conflict of use risks (which could result in brand reputation damage or litigation for instance). Specific engagement points with this stakeholder category also include potential water reuse opportunities for third parties. In terms of risk assessment, the Local Water Tool allows the identification of other water users and any potential water use conflicts (different water categories: surface water, groundwater, municipal and network supplied water, brackish water, seawater and salty groundwater). In OECD countries Sites use their statutory relationship with authorities to participate to local agencies or bodies dealing with local water users' dialog. As an example, in France, sites do engage with Region Water Agencies that maintain a platform for exchanges among water users.</p>
Regulators	Relevant, always included	<p>Our activities are subject to laws and regulations pertaining to the environment, health and safety. In most countries where the Group operates, particularly in Europe and the United States, sites and products are subject to stringent laws governing the protection of the environment (incl. water) and health (occupational safety and chemical product risk, etc.). Product quality and consumer protection are also subject to increasingly strict regulations. Total's entities ensure that their products meet applicable specifications and all applicable consumer protection laws. Failure to do so could lead to personal injury, property damage, environmental harm and loss of customers, which could negatively impact Total's financial condition, including operating income, cash flow, and reputation. Local regulations and water tariffs are likely to affect the continuity of Total's operations and are tracked and monitored by affiliates (in particular for the refining and chemical segments, which are generally located in developed countries with water pricing).</p> <p>Total conceptualizes and develops its projects in partnership with regulators in order to meet all relevant regulations, and therefore manage regulatory risks. As part of its annual LongTerm Plan exercise, Total anticipates future regulatory changes that are likely to affect its CAPEX. As a consequence, regulators are systematically factored in its water-related risk assessments. Moreover, Total proactively participates in public consultations over regulatory changes. Example: consultation on the transposition of European regulation into French Law regarding water discharge. This participation is made either directly or through the relevant professional organizations (CONCAWE, UIC, UFIP, and IOGP).</p>
River basin management authorities	Relevant, always included	<p>Beyond the societal initiatives that are directly related to the Group's industrial and commercial activities, Total is committed to general interest measures in the countries where it operates. In the face of growing inequality and environmental challenges, the Group intends to strengthen its public interest initiatives and has implemented a new civic commitment policy in line with its history, its values and its businesses. It wishes to act in a way that ensures the vitality and sustainability of the territories in which the Group is present by favoring actions that benefit young people first.</p> <p>As coordinators of local water resources, river basin management authorities are relevant stakeholders to Total's projects. The associated risk would be that Total loses its license to operate. Where relevant, Total engages with river basin management authorities through direct dialogue, in order to ensure the compliance of its operations with local water management rules, and thus adequately manage water-related risks (water quotas or environmental permits).</p>

Stakeholder	Relevance & inclusion	Please explain
Statutory special interest groups at a local level	Relevant, always included	<p>On a general basis, Total engages proactively with local interest groups at local level to optimize its “social license to operate” and manage the associated operational risks. Where relevant, Total engages and maintains a constant dialogue for instance with local fishery associations through the selection of Community Liaison Officers, living in the communities as applicable. Total engaged in this in French Guyana. As another instance of relations with special interest groups. Total also has, for more than 10 years, a partnership with a veterinary center specialized in managing oiled aquatic fauna. This expertise is quite unique since it allows to alleviate the risk for marine birds in case of spills, there no such example in our benchmark. These groups are identified in the SRM+ internal system, and hence potential risks linked to water are factored in Total’s water risks assessment.</p>
Suppliers	Relevant, always included	<p>The mapping of severe impacts of the Activities has been supplemented by a risk mapping specific to the Group’s procurement, by category of goods and services, with the participation of 80 persons (CSR experts and buyers) and the support of AFNOR. Total Global Procurement worked on its methodology in 2019, with a view to updating in 2020 the previously established map, based on questionnaires completed by the managers of each purchasing category. A new IT Supplier qualification tool was developed in 2019 and will gradually be rolled out in over 100 countries. In 2019, over 4,000 of the Suppliers managed by Total Global Procurement in France were included into the supplier qualification process. The Group provides its buyers with supporting materials, such as the “Sustainable Purchasing Awareness Cards”. In June 2019, the Total Global Procurement seminar was attended by 239 buyers and procurement support functions. When updating the CSR risk map relating to the Group’s procurement, workshops were increase the buyer’s awareness of the issue of responsible procurement. Awareness-raising actions are carried out during meetings with Suppliers, particularly the Suppliers Day event that brings the Group’s strategic Suppliers together every 2 years. During the 2019 Suppliers Day, the Fundamental Principles of Purchasing and the Group’s new Code of Conduct were distributed to participants. With respect to the development of good practices in business relations, Total has consistently raised its employees’ awareness of mediation as an alternative method for resolving disputes since 2013. A brochure designed to increase awareness of the mediation process is available to all Group employees. In addition, an email address (mediation.fournisseurs@total.com) is available on the Total website. Total belongs to the IPIECA’s Supply Chain Working Group. Building on the workshops held since 2015, Total continued to participate in the Operationalization of the UN Guiding Principles work organized by the IPIECA, aimed at both oil and gas companies and engineering, procurement and construction (EPC) contractors.</p> <p>Suppliers are part of the SRM+ stakeholder relationship management system and hence potential risks linked to water are factored in Total’s water risks assessment. Total’s suppliers are not deemed to include significant users of water. This position will evolve depending on the development of biofuels activities as agricultural products are more exposed to water risks.</p>
Water utilities at a local level	Relevant, always included	<p>As part of its project feasibility studies, Total engages with local water utilities through dialogue and contractual agreements, to ensure the continuity of its access to local water resources. Water costs from water utilities are factored into risk assessments through the Long-Term Plan annual assessment, which anticipates OPEX rise due to higher water costs. The Local Water Tool assessment also incorporates this parameter, which helps managing the risk of discontinuity in water supply from local water utilities.</p>

Stakeholder	Relevance & inclusion	Please explain
Other stakeholder, please specify	Not relevant, explanation provided	The categories listed above encompass Total's stakeholders' categories according to the stakeholders mapping performed through SRM+. Total is cooperating with the International Office for water on a variety of topics including water re-use guidance tools, Horizon Scanning and Water GIS data provisioning for integration to its GIS HSEQ Company tool use for monitoring and assessments. Total relates to the IPIECA guidance for environmental and societal issues. Detailed information on reporting guidelines is available on the Group's website (sustainableperformance.total.com). Building on the workshops held since 2015, Total continued to participate in the Operationalization of the UN Guiding Principles work organized by the IPIECA, aimed at both oil and gas companies and engineering, procurement and construction (EPC) contractors. Total collaborates with IPIECA to publish a public guide to monitor and assess water risks.

(W3.3d) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

Total has adopted a water stewardship approach. Water risks are caused not only by our own water use and discharges, but also by the catchment context in which Total operates. We have identified water challenges: quality, quantity, governance, ecosystems and biodiversity, Access to safe water, sanitation, and hygiene and Extreme weather events. Total has selected SDGs and associated water targets: SDG 6 - targets 6.1, 6.2, 6.3, 6.4, 6.5 and 6.6 + SDG 11 – target 11.5 and SDG 13 – target 13.1.

Total implements the following water risk management actions:

- Develop water risk management strategy:** Total's activities are carried out in adherence to laws and Group's Code of Conduct within the framework of compliance and risk management procedures. Increasing scarcity of water resources may negatively affect Total's operations, high sea levels may harm coastal activities, and the multiplication of extreme weather events may damage facilities. Risk factors are continually assessed in the risk management and prevention plans. The Group's risk management system draws on main international standards (COSO, ISO 31000: 2018) and on French standards. Internal Risk Management, Internal Control and Audit Charter form the framework to ensure control of the activities. These rules task the Board of Directors' Audit Committee with monitoring the efficiency of the control and risk management systems, and of the internal audit performed at all levels of the organization and to make recommendations for their improvement. The EXCOM is responsible for analysing internal and external risks that could impact Group's objectives. Total has developed safety, health and environment risk assessment procedures and tools applicable to operate its activities. To prevent the occurrence of a major industrial accident that might cause death, physical injury, large-scale pollution or pollution at an environmentally sensitive site, or damage to property, Total implements suitable risk management policies and measures which apply to all the Group's operated activities that are exposed to such risks. The evaluation of water-related risks is core to the environmental impact assessment along all project assessment phases. Each assessment is followed by a stage-gate review and a decision process regarding the go/no-go of the project; so water risks are fully integrated into project assessments. Detailed studies relating to water management are established according to projects' scope and nature. This exercise is presented at the highest management level of the company and is thus embedded into the group's strategy. It includes an evaluation of the costs associated with water-related CAPEX / OPEX, which allows an alignment of Total's strategy with the evolution of water-related risks. For operating sites, further to the assessment process, sites potentially exposed to water risk or with a significant impact on water resources conduct a LWT, which includes other relevant risks. Continuous monitoring of water risks is ensured through the Group-wide reporting systems.

- **Set water targets across business units:** Total Group has defined a target to improve water performance: Maintain the hydrocarbon content of water discharges below 30 mg/l for offshore sites and below 15 mg/l for onshore and coastal sites. Total continuously monitors water resources use at site level through its reporting system (HARPE).
- **Develop site water stewardship plan and obtain third-party certification:** we improve the water resources management depending on identified needs adapting the priority sites' environmental management system. 100% of the Group's sites have met the target for the quality of onshore discharges since 2016 and 100% of the Group's sites have met the target for the quality of offshore discharges in 2019. Total has deployed since 2006 its Stakeholder Relationship Management (SRM+) methodology for the value chain.
- **Manage water-related performance:** In order to identify its facilities exposed to the risk of water stress, Total records the withdrawals and discharges of water on every operated site and assesses these volumes on the basis of the current and future water stress indicators of the WRI Aqueduct tool. Globally, the sites operated by the Group are not particularly exposed to water risk. Total also uses the Water and Biodiversity working groups of IPIECA to perform benchmarks of the Best Available Practices in the industry and ensure internal practices are up to speed. LCA is a key methodology used to assess on a global manner all the aspects of the Water strategy that is defined at Group down to local level. The internal Geographic Information System (GIS) is used to assess Water risks in general (risk to surface water like lakes, rivers, ponds, etc.... and Wetland particularly Ramsar Area). Total uses an internal screening and detailed environment risk assessment system called ERASM covering water risks (risks for surface and underground waters).

W4 Risks and opportunities

Risk exposure

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

No

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

As described in the Procedures' section, Total has been consistently screening its main sites' exposure to water related risks through LWT analysis. In the previous years' responses to the questionnaire, the Normandy and Grandpuits sites have been identified as exposed to water risks (and reported as such). However, the likelihood (no materialization of risks in the past years) and low magnitude (less than 1% of the group revenues would be affected in total, even with very conservative hypothesis) of the water-related risks for those sites are not considered as having a « substantive impact ». Therefore, there is no site considered as exposed to substantial water risk in this year's response.

As an example, at Normandy refinery, the direct operations are possibly affected by water scarcity and the permit granted by local authority could ask the refinery to reduce its water withdrawal in case of droughts. If a severe drought occurred, the refinery should stop its operation during several weeks or months. In the event of a very maximal drought of 3 months, the lack of income would be much less than 1% of Group income.

Any investment, sale or financial commitment is subject to different levels of decision-making based on financial thresholds.

Substantive financial impacts are defined as the amount of CAPEX involved in the particular project under analysis. Based on “financial significance” thresholds, the environmental risks will be assessed through different processes and undergo different levels of validation. These thresholds are segment-specific, but the general rule is that decisions on water-related risks with minor CAPEX implications are taken at site level. Then, decisions with significant CAPEX implications are taken at branch level, while decisions with very significant CAPEX implications will be discussed and approved by the Group’s executive committee.

Different levels of water risk exposure have been defined for the projects reviewed by the Group’s executive committee (and branch committees), ranging from low risk (No competition for the resource, water not usable for anything else by future generations or available in unlimited quantities) to very high risk (Very large volumes of fresh water with usage conflicts in a watershed under severe water stress, in a country with low per capita income and very weak water supply infrastructures). These are therefore levels of strategic risks.

As an illustration, E&P activities have different significance thresholds as exploration is considered as a riskier activity than existing developments, due to the risk of generating no return if exploration is unsuccessful.

Hence substantive change is defined based on activity-specific CAPEX thresholds, and water-related CAPEX are discussed through this particular process. Due to the nature of Total’s activities, this approach to water risks related changes is applied to Total’s direct operations, where the vast majority of water risks are concentrated. It is also applied to Total’s assets operated by third parties.

Each year, the Chemical Refining branch carries out a long-term plan exercise, integrating the 5-year investment plan for HSE aspects. In 2019, investments planned on aqueous matters represented 32 million euros across the Division, including work and studies aimed at optimizing the treatment of effluents. The selected optimization schemes are part of the know-how of the company and therefore need to remain confidential.

(W4.2b) Why does your organization not consider itself exposed to water risks in its direct operations with the potential to have a substantive financial or strategic impact?

Primary reason	Please explain
Risks exist, but no substantive impact anticipated	<p>In the previous years' responses to the questionnaire, the Normandy and Grandpuits sites have been identified as exposed to water risks (and reported as such). However, the likelihood (no materialization of risks in the past years) and low magnitude (less than 1% of the group revenues would be affected in total, even with very conservative hypothesis) of the water-related risks for those sites lead us to consider that those potential impacts are not substantive. Therefore, there is no site considered as exposed to substantive water risk in this year's response.</p> <p>Any investment, sale or financial commitment is subject to different levels of decision-making based on financial thresholds. Financial expenditures associated with water-related risks are the indicator used by Total to define substantive change. Substantive financial impacts defined as the amount of CAPEX involved in the particular project under analysis. Based on "financial significance" thresholds, the environmental risks will be assessed through different processes and undergo different levels of validation. These thresholds are segment-specific, but the general rule is that decisions on water-related risks with minor CAPEX implications are taken at site level. Then, decisions with significant CAPEX implications are taken at branch level, while decisions with very significant CAPEX implications will be discussed and approved by the Group's executive committee.</p> <p>As an illustration, E&P activities have different significance thresholds as exploration is considered as a riskier activity than existing developments, due to the risk of generating no return if exploration is unsuccessful.</p>

(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

Primary reason	Please explain
Risks exist, but no substantive impact anticipated	<p>Total operates along the entire oil and gas value chain, and therefore has integrated its raw material supply within its perimeter: water-risks mainly occur in its direct operations and not in its value chain. At present, very few supplies are linked to water issues while Total operations are possibly directly causing risks to water masses like through possible oil spills or improper water discharges.</p> <p>The Total Group's Vigilance Plan covers the risks for the activities of suppliers of goods and services under Article L. 225-102-4 of the French Commercial Code. It sets out the rules and measures which, as part of risk management systems, enable Total to identify and prevent actual or potential severe impacts related to its Activities and to mitigate their effects, as the case may be. It reflects the responsible purchasing principles applicable to relationships with Suppliers. The mapping work was carried out using Total's existing risk management tools. The Fundamental Principles of Purchasing specify the commitments that Total expects from its suppliers: respect for human rights at work, health protection, safety and security, preservation of the environment, prevention of corruption and conflicts of interest and fraud, respect for competition law, as well as the promotion of economic and social development. Depending on the results of a risk analysis, a detailed assessment is performed once every five years. The group activities' diversification has generated ties with new value chains (solar power, biofuels, batteries...) with inherent water issues. These are integrated in the group's risk strategy through value chain specific analysis. For instance, lifecycle analysis has been performed on solar panels manufacturing, polymers (leading to the development of polymers integrating recycled materials up to 50%). However, the related water risks (e.g. water footprint of solar panels) are currently not anticipated to have a substantive impact over the Group.</p>

Water-related opportunities

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity	Primary water-related opportunity	Company-specific description & strategy to realize opportunity	Estimated timeframe for realization	Magnitude of potential financial impact	Potential financial impact	Explanation of financial impact
Other: Cost savings	Improved water efficiency in operations	<p>The Group relies on a robust and dynamic R&D policy to conduct and develop its activities. As part of the Group's ambition to become the responsible energy major, Total finalized, in 2019, its R&D strategic plan to determine its positioning for the five coming years, together with its portfolio of research programs. The portfolio of programs is divided into five focus areas: safety and environment, low-carbon mix, operational efficiency, new products and, finally, digital. Total has made strong commitments that benefit sustainable growth. Total's committed R&D equals to:</p> <ul style="list-style-type: none"> • \$968 million invested in 2019, compared to \$986 million in 2018 and \$912 million in 2017. • 4,339 employees dedicated to R&D. • 18 R&D centers around the world. • 1,000 agreements with partners. • over 200 patent applications filed in 2019. <p>As a major Oil & Gas company, Total has an opportunity to lead water research and set industry best practices in this field. R&D offers the opportunity of economic and environmental performance improvements, via reducing water risks, decreasing water costs and thus improving business resilience. The primary purpose of this research program is to improve industry's best practices on water management. Even though it could lead to water efficiency and savings, no direct financial impact is expected. A budget of 10M€ budget has been allocated and 24 pilots are in progress with worldwide collaborations with selected universities and business partners facilitating progresses to both parties.</p> <p>The water opportunities are operational in nature and are driven at the O&G facilities. They bring direct financial benefits and other kinds of benefits such policy influence, strengthening of reputation, and reduced environmental impact. In addition, Total's water technical improvements benefit to local water users; through</p>	> 6 years	Medium	5 M€	Based on the measures we have already installed at our O&G facilities in the past months with a resulting company-wide water consumption saving of 10% and reduced water charges that could correspond to 31,000 megaliters, we have been able to estimate the full impact of water efficiency measures in savings of up to 5 millions of € in 6 years. On a long term perspective, the return on the R&D CAPEX is obtained after 12 years. The lifetime of our sites is generally over 25 years. The improvement performed through the R&D actions are also a factor of local acceptability. Improved local acceptability is priceless. Example: Since 2017 in Philippines, mitigation actions have generated a decrease of 31% of the water footprint at a site (from 2.1 Mm ³ to 1.4 Mm ³).

Type of opportunity	Primary water-related opportunity	Company-specific description & strategy to realize opportunity	Estimated timeframe for realization	Magnitude of potential financial impact	Potential financial impact	Explanation of financial impact
		<p>stewardship programs that address shared risks or aim to secure water for all. Examples: Improving the compacity of water treatment units leads to very significant savings on CAPEX for the offshore installations while reducing our resource consumption. Since Total portfolio is very much oriented to the offshore installations, this kind of CAPEX savings is critical. Part of the research activity on water management is used to develop intellectual property and build a capability for differentiation.</p>				
Efficiency	Improved water efficiency in operations	<p>The initiative One R&D Plan Vision 2019+ federates pioneers committed to providing impactful solutions to our customers for a cleaner, safer, and more affordable energy. Regarding R&D on Water, we focus on our industrial performance and innovative processes Total has developed such as: viscosified water reinjection, produced water reinjection and new technologies and among them: salt removal. In addition, we rely on our environmental performance (effluent characterization and monitoring, water usage analysis, water treatment, water management and Life cycle analysis).</p> <p>The improvement of water efficiency represents a significant opportunity of economic and environmental performance improvements for Total, via reducing water risks, decreasing water costs and thus improving business resilience. Total has implemented several tools like Wat-R-Use to benefit from water cost savings, especially in its Solar Panels production activities. Total's Refinery and Chemicals activities are the most water intensive (approximately 86% of the Group's total freshwater withdrawals) and therefore concentrate most of the effort to improve water efficiency. This is achieved through several water optimization actions, such as the Total Group-wide water optimization guide and the development of the water reuse tool. Seven pilot research projects were conducted at Total's petrochemicals plant at the Normandy platform. A 1.2 million € budget was allocated to test three water treatment processes (wastewater from the site's water treatment plant, cooling water and cooling blowdown). Pertinent technologies were identified to reduce pollutants and water consumption.</p>	> 6 years	High	1 M€	<p>The order of magnitude of potential savings due to lower water-related OPEX is 1 million € / year mostly related to the savings made on water supply costs for these particular actions.</p> <p>The GRP segment sources photovoltaic devices for its solar power activities. Total has performed a life cycle analysis (LCA) of these devices, including water in line with the ISO 14046 standard.</p>

Type of opportunity	Primary water-related opportunity	Company-specific description & strategy to realize opportunity	Estimated timeframe for realization	Magnitude of potential financial impact	Potential financial impact	Explanation of financial impact
Markets	Stronger competitive advantage	As Total evolves in very competitive markets, differentiating its products with an optimized environmental performance is a clear business opportunity for Total. Therefore, Total regularly performs new products' lifecycle assessments over several environmental indicators including water, which ensures these products and their supply chain resilience. The optimized water footprint of Total's solar devices provides these products with a competitive advantage in a very competitive market. In the MS segment, Total has developed its offering of environmentally optimized products. Indeed, the "Total Ecosolutions" internal label only features on products for which a life-cycle analysis has demonstrated a reduced environmental impact (including water use reduction) compared to market standards. As another case study of this integration, in the Gas and Renewable Power (GRP) segment several solar panel models are "cradle to cradle" certified. The Cradle to Cradle Certified Products Program is a comprehensive product quality standard that evaluates product design, manufacturing and sourcing practices as well as corporate citizenship and ethics principles. This certification provides a comparative advantage to these panels and includes an assessment of products' water footprint. As an indication of the financial implications of this opportunity, the GRP related net revenue were 756 million USD in 2018.	> 6 years	Medium-high	7 M€	The water opportunities bring direct financial benefits and water efficiency parameters should allow an increase of the GRP segment profit by a maximum of 1%. Thus the magnitude of the impact would be 7 millions of euros. However, 1% is considered as a maximum since a lot of efforts in water reductions have already been made, reaching one of the best performance of the market. The margin for further improvement remains thus limited.
Efficiency	Other: Products and services : Reduced impact of product use on water resources	The exploration of water reuse opportunities in Total's most consuming sites is done across all relevant business segments. In 2018 for instance, the reuse of water has been investigated in one site producing photovoltaic panels. In the MS segment, Total explores the development of water recycling from car wash at petrol stations, in order to optimize its water efficiency, and ensure business continuity in case of droughts (several cases in the recent past up to 66 regions in France with water withdrawal restrictions). In some regions, car dry washing solutions is also considered to adapt to local water stress conditions. Total Carwash systems in France are fitted as much as possible with water recycling/reuse units.	> 6 years	Medium	1 M€	Based on the average price of water in the concerned 66 french regions and the associated expected consumption savings, the order of magnitude of potential savings due to lower water-related OPEX is 1 million € / year.

Type of opportunity	Primary water-related opportunity	Company-specific description & strategy to realize opportunity	Estimated timeframe for realization	Magnitude of potential financial impact	Potential financial impact	Explanation of financial impact
Resilience	Resilience to future regulatory changes	Each year, Refining-Chemicals branch does an LTP (Long Term Planing) exercise, including investments for HSE subjects in the next 5 years. In 2019, investments foreseen on water subjects represented 32 M€ for the RC branch, including studies and works for wastewater treatment optimization.	5 years	Medium	1 M€	The investments allow the refineries to improve continuously their performances, and to be compliant to new regulations. If not, the impact could be to stop the operations for these refineries. We estimate that the financial impact could be 1 M€ based on our experience.
Efficiency	Improved water efficiency in operations	Development and/or expansion of low emission goods and services: Wat-R-Use tool is Total's tool to collect accurate data, validate the cost models and calculate Water footprint. It helps reduce our water footprint wherever possible, using every available approach, and without harm to the environment at site locations. Total developed a tool through a multi criteria approach that pushes users to collect data, validate the cost models, calculate direct and indirect Water footprint and Carbon footprint (LCA approach), evaluate ecotoxicity and get aware and take actions limiting water risk. Wat-R-Use tool helps reduce our water footprint wherever possible, using every available approach, and without harm to the environment at site locations. The tool has been transferred to Greenflex. Total is investing in low-carbon companies and since 2017, GreenFlex is part of its 'Carbon Neutrality Businesses' operations.	Current	Medium	500 K€	Wat-R-Use tool is now for use within Total and outside, contributing to water efficiency within and beyond Total boundaries. The implementation of the R-use tool has saved significant amounts of intake water from the solar panel manufacturing plants. Over the period 2017 to 2019, the tool has helped to save 31% of the intake water in Philippines, and 28% in Malaysia. Thus the gain was about 500 000m3 per year. Taking an average of 1€/m3, the savings amount is 500 K€.
Resilience	Resilience to future regulatory changes	The risks associated with water management are anticipated through the Long-Term Plan (LTP), which is a prospective exercise undertaken annually. It includes water production/injection/discharge analysis over the next 10 years. It analyses the CAPEX risks associated with water management, notably taking into account potential changes in the regulatory contexts to which the Group is exposed. We need to be resilient to adapt our responsiveness to government priorities and to anticipate the regulatory uncertainty for the industry. The measures will also improve the information Total receives from regulators and update the process for serving under water industry legislation. From an investor's point of view, this prospective approach provides a competitive advantage to the company in terms of risk management. Being able to maintain an A- level at CDP Water Risk Questionnaire is considered as a proper answer to investor's questions pertaining to water risks for Total's operations.	> 6 years	High	15 M€	Thanks to a robust water-related risk management, we have identified that the Long-Term Plan (LTP) help anticipate the water-related risks and quantify the financials impacts of these risks (costs of water supply and their evolution, costs related to regulation evolution and CAPEX needed to meet compliance). We have assessed that the reduction of these expenses (CAPEX, fines, cost of water supply) could result in a financial positive impact avoided of approximately 15 M€.

W6 Governance

Water policy

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available

(W6.1a) Select the options that best describe the scope and content of your water policy.

Scope	Content	Please explain
Company-wide	<ul style="list-style-type: none"> • Description of business dependency on water • Description of business impact on water • Description of water-related performance standards for direct operations • Description of water-related standards for procurement • Reference to international standards and widely-recognized water initiatives • Company water targets and goals • Commitment to align with public policy initiatives, such as the SDGs • Commitments beyond regulatory compliance • Commitment to water-related innovation • Commitment to stakeholder awareness and education • Commitment to water stewardship and/or collective action 	<p>Total's corporate water policy is publicly available on its Universal Registration Document 2019. Since 2016, Total engaged in a "ONE Total" project on a 20 years horizon in order to uniformize standard practices and levels of expectations. It is important that all entities share the same ambitions, thus Total Water Policy is company-wide and does apply worldwide. In addition to align Total's water policy to the recent CEO WATER MANDATE framework, the Group commits to:</p> <ol style="list-style-type: none"> 1. Providing WASH services in the workplace 2. Measuring and monitoring water management practices 3. Driving operational efficiency and reduce pollution 4. Identifying and understanding water-stressed and high-risk basins 5. Integrating water management into business strategy 6. Leveraging improved practices throughout the value chain. <p>To reduce risk exposure, Total has adopted a water stewardship approach. Water risks are caused not only by our own water use and discharges, but also by the catchment context in which Total operates. We have identified water challenges such as quality, quantity, governance, water-related ecosystems and biodiversity, access to safe water, sanitation, and hygiene, and extreme weather events. To respond to priority water challenges, Total has defined SDGs and water targets such as: SDG 6 - targets 6.1, 6.2, 6.3, 6.4, 6.5 and 6.6 + SDG 11 – target 11.5 and SDG 13 – target 13.1.</p> <p>Total implements the following water actions:</p> <ol style="list-style-type: none"> 1. Develop water risk management strategy: Total's activities are carried out in adherence to laws and Group's Code of Conduct within the framework of compliance and risk management procedures. 2. Set water targets across business units: Total Group has defined a target to improve water performance: Maintain the hydrocarbon content of water discharges below 30 mg/l for offshore sites and below 15 mg/l for onshore and coastal sites.

Scope	Content	Please explain
	<ul style="list-style-type: none"> • Commitment to safely manager Water, Sanitation and Hygiene (WASH) in the workplace • Acknowledgement of the human right to water and sanitation • Recognition of environmental linkages, for example, due to climate change 	<p>3. Develop site water stewardship plan and obtain third-party certification: 100% of the Group's sites have met the target for the quality of onshore discharges since 2016 and 100% of the Group's sites have met the target for the quality of offshore discharges in 2019.</p> <p>4. Manage water-related performance: In order to identify its facilities exposed to the risk of water stress, Total records the withdrawal and discharge of water on all of its operated sites for this indicator and assesses these volumes on the basis of the current and future water stress indicators of the WRI Aqueduct tool.</p>

Board oversight

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

(W6.2a) Identify the position(s) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Board Chair	<p>The Chairman of the Board and CEO of Total, is responsible for water inclusion in the Group's strategy on the long-term, whereby water-related issues are fully integrated into. The chairman of the board is the highest level of the organization. In 2016, Total's CEO took a decisive step by the creation of a ONE HSE department. The Charmain ensures that the board is informed of the market developments, the competitive environment and the main challenges, including water issues. The Chairman also chairs the Group Performance Committee. Finally, the Chairman of the Board has a direct look at the "One R&D program", in which the water management is included, with projects to improve water quality, to desalinate, or to decrease the volume of resource water used.</p> <p>In 2015 the Board set objectives on HC content in discharge water for the period 2015-2020 and decided more recently to use the CDP Water security questionnaire as a metric for the Total water risk assessment policy.</p>
Director on Board	<p>The Board of Directors is a collegial body that determines the strategic orientation of the Company and supervises the implementation of its vision. With the exception of the powers and authority expressly reserved for shareholders and within the limits of the Company's legal purpose, the Board may address any issue related to the Company's operation and make any decision concerning the matters falling within its purview. Total's Board of Directors ensures that water-related issues are incorporated into the Group's strategy. The Lead Independent Director who ensures efficient governance of the company in accordance with current practice, is the Chairwoman of the Governance and Ethics Committee, member of the Strategic & CSR Committee and member of the Compensation Committee. The latter implies that she monitors the definition of sustainability criteria of the compensation schemes including water-related aspects.</p>

(W6.2b) Provide further details on the board’s oversight of water-related issues.

Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Scheduled - some meetings	<ul style="list-style-type: none"> • Monitoring implementation and performance • Overseeing acquisitions and divestiture • Overseeing major capital expenditures • Providing employee incentives • Reviewing and guiding annual budgets • Reviewing and guiding business plans • Reviewing and guiding major plans of action • Reviewing and guiding risk management policies • Reviewing and guiding strategy • Reviewing and guiding corporate responsibility strategy • Reviewing innovation/R&D priorities • Setting performance objectives 	<p>Every year, the Board of Directors reviews the main issues related to climate change and environmental issues (including water issues) in the strategic outlook review of the Group’s business segments, which are presented by the respective branch Directors. Also, the Audit Committee, a subset of the board, does more specific work on the climatic and environmental reporting processes in the review of the performance indicators published by Total in its annual report and audited by an independent third-party organization. The Board of Directors is fully mobilized by the Climate issue in order to support the development of Total, and it approved the publication of the first Climate Report in March 2016. This report is updated yearly. All these points of information and decisions were made during programmed Board’s meetings along the year. The Board yearly approves the release of water-related information.</p> <p>Since 2016, the Compensation Committee also decided to introduce changes to the variable compensation of the Chairman and Chief Executive Officer to take better account of the achievement of Corporate Societal Responsibility (CSR) and HSE targets. The importance given to these aspects in the remuneration keeps growing, and the Compensation Committee of the Board reviews these criteria every year.</p> <p>Significant CAPEX decisions related to water are for instance part of board’s discussion (Water major investments at RC sector, R&D programs etc.). The integration of water related issues also relies on the CORISK approach, whereby any significant modification to Total’s operational perimeter is presented and analyzed by the Group Risk Management Committee, including all HSE risks. This analysis is then presented to the Executive Committee (COMEX).</p> <p>Through 2019, the Chief Sustainability Officer has submitted full information and documentation related to the compliance with the Grenelle II environmental law in France to the Board. This process ensures the Board’s information and ability to take decision, based on the actions defined during CSR reviews.</p> <p>COMEX’s members meet, as a minimum, on a quarterly basis at HSE Business Reviews to discuss about HSE issues (including water). Further these meetings, a feedback is done through COMEX to implement the decisions taken into the branches.</p> <p>In conclusion, the governance related to water issues is shared throughout the Total Group management scheme (from Board to sites).</p>

Management responsibility

(W6.3) Below board level, provide the highest-level management position(s) or committee(s) with responsibility for water-related issues.

Please complete the following table.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on water-related issues	Please explain
Chief Executive Officer (CEO)	Both assessing and managing water-related risks and opportunities	More frequently than quarterly	The CEO chairs the monthly Group Performance Committee that deals with HSE including water-related issues like major spills. The CEO personally approves the Universal Registration Document submitted in France and the Form 20F to the US SEC. During the URD review, the CEO analyses the response to CDP Water Security questionnaire, and orientates the water strategy for a better performance. This is summarized in Total's 2019 URD, p. 224. The People and Social Responsibility (VP, also Group CSO, is the interface between operations and board level and CEO. She is responsible for HSE at EXCOM level, giving regularly an expert oversight to the board. Water-related issues are also managed at the Audit Committee. Total Board's Audit Committee meets once a year (4 board members) and proceeds to a risk assessment including Water Risks KPIs and Water issues even at site level.

Employee incentives

The questions in this section are presented to high-impact sectors only and will not be displayed here unless you opted to view sector-specific questions.

W6.4 Do you provide incentives to C-suite employees or board members for the management of water-related issues?

Response options

Yes

W-6.4a What incentives are provided to C-suite employees or board members for the management of water-related issues?

Type of incentive	Roles entitled to incentive	Performance indicator	Please explain
Monetary reward	Chief Executive Officer (CEO)	Improvements in waste water quality – direct operations	For 2019, the variable part of the compensation paid to the Chairman and the Chief Executive Officer amounts to 180% of the fixed compensation. The formula for calculating the variable portion uses economic parameters that refer to targets reflecting the Group’s performance. These targets include 15% related to CSR objectives. For water, these objectives are to maintain the Group in the DJSI (Dow Jones Sustainability Index) list, which takes into account water performances of the company. Due to positive trends on CSR performance gained in the recent years and particularly in 2019, the 15% have been obtained by Chairman and CEO. However, the variable part of the Chairman and the CEO compensation could be reduced in the future if the water performance of the company would degrade the DJSI scoring. This decision would be taken by the compensation committee of the Board of Directors.
Monetary reward	Other, please specify: Employees	<ul style="list-style-type: none"> • Reduction of water withdrawals • Reduction in consumption volumes • Improvements in efficiency – direct operations • Improvements in efficiency – supply chain • Improvements in efficiency – product-use • Improvements in waste water quality – direct operations 	Employees have a HSE annual objective to be achieved that could be linked to concrete water projects. Water performance is evaluated each year and the individual monetary reward will depend if applicable on direct performance. Moreover, a collective monetary reward exists and relies on multiple HSE criteria which represents up to 10% of the variable portion. In 2019, 86.6% of the Group’s entities (WHRS scope) included HSE criteria in the variable compensation.
Non-monetary reward	Other, please specify: Employees	<ul style="list-style-type: none"> • Reduction of water withdrawals • Reduction in consumption volumes • Improvements in efficiency – direct operations • Improvements in efficiency – product-use • Improvements in waste water quality – direct operations • Improvements in waste water quality – product-use • Implementation of employee awareness campaign or training program • Implementation of water-related community project 	In the GRP segment, an award was given to employees who have been deployed the tool “Wat’R Use”. Employees’ water performance is also share on newsletters and available on the R&D water database. To contribute directly to societal initiatives, Total allows each employee to spend 3 free days serving associations in accordance with strategic issues such as water. In 2019, employees helped launch the initiative Water projects in the Action! Program in the Paris basin.

Public policy engagement

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

- Yes, direct engagement with policy makers
- Yes, trade associations
- Yes, funding research organizations
- Other

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

Total has adopted a lobbying ethics charter widely distributed within the Group and available online.

https://www.sustainable-performance.total.com/sites/shared/sustainable/files/atoms/files/lobbying-ethics-charter_0_0.pdf

It applies to all entities and subsidiaries held by the Group, in accordance with respective decision-making rules. Total applies a zero-tolerance policy to any infringement to the Lobbying Ethics charter which implies possible sanctions up to dismissal in accordance with applicable law. Total complies with all national and international laws and standards in all of its host countries. Beyond rules, Total has made values: Safety, Respect for Each Other, a Pioneer Spirit, the need to Stand Together and a Performance-Minded attitude – the beacons that guide actions day after day. The 2 core values, Safety and Respect for Each Other, form the basis of our Code of Conduct. The Respect of Each Other covers 4 aspects: respect of laws, respect of human rights, respect of all resources, and respect in the interactions towards stakeholders. The respect of human rights includes access to clean water, implying the sustainable use of water into our operations (minimize the use of water, do not pollute...)

Total plays an active role within partnerships established with recognized organizations (WBCSD, IPIECA, DREAL, Water Agencies in France, Office International de l'Eau (Water International Office),...). Other partnership can be noted in R&D: UPPA and Rio Tinto.

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

- Yes

W7 Business strategy

Strategic plan

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

Please complete the following table:

Aspect of strategic business plan	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	5-10	Total anticipates risks and opportunities in its Long-Term Plan exercise (LTP), including water-related over a horizon of 10 years and the next LTP will start in 2021 until 2030. On a longer-term perspective (25-30 years), installation designs integrate stress resilience to water issues, whether stress elements pertain to CAPEX or OPEX: long term evolution of the Hydrocarbon content of discharged water and retrofit on projects, water regulation evolution and retrofit on water CAPEX on projects, Water withdrawals in water stress area and prioritization of water technical solutions for use and discharge. The Management ensures that objectives are defined at all levels for operations, reporting and compliance. To provide assistance to its direct operations, created in 2010, Total monitors a Water Database with all expertises gained for more efficient production and distribution processes. This database is available at 100% of production sites and offers existing and innovative water treatment technologies. This tool is strategic, as it facilitates the building of water treatment lines, allows to establish contact with a water treatment engineer, provides of expertise and methodology to verify a process. Water experts are mobilised among Total Group through sharing of good practices, support functions, water networks, PERL laboratory and technical assistance from TRTG (Laboratory) and ATCO (assistance center). They all regularly follow-up the R&D "water management" program.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	Total anticipates risks and opportunities in its Long-Term Plan exercise (LTP), including water-related over a horizon of 10 years and the next LTP will start in 2021 until 2030. On a longer-term perspective (25-30 years), installation designs integrate stress resilience to water issues, whether stress elements pertain to CAPEX or OPEX. An example is the the Djeno project in Congo onshore with a significant CAPEX, for a new flotation unit installed in 2016 to enhance the existing waste water treatment plant. In addition, the Group has made some assets investment or divesture etc. and therefore they are integrated into long-term business objectives.

Aspect of strategic business plan	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Financial planning	Yes, water-related issues are integrated	5-10	Total anticipates risks and opportunities in its Long-Term Plan exercise (LTP), including water-related over a horizon of 10 years and the next LTP will start in 2021 until 2030. On a longer-term perspective (25-30 years), installation designs integrate stress resilience to water issues, whether stress elements pertain to CAPEX or OPEX. An example is the Djeno project in Congo onshore with a significant CAPEX for a new flotation unit installed in 2016 to enhance the existing waste water treatment plant. In addition, the Group has made some assets investment or divesture etc. and therefore they are integrated into long-term business objectives.

Capex/Opex

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Water-related CAPEX (+/- % change)	Anticipated forward trend for CAPEX (+/- % change)	Water-related OPEX (+/- % change)	Anticipated forward trend for OPEX (+/- % change)	Please explain
0	0	0	0	Total's water withdrawal from third party sources has slightly decreased in 2019 and therefore the water-related OPEX is considered stable. The reason is that water-related operational expenditures are linked to the volumes of water sourced from freshwater providers. No significant increase is forecast for 2020. Based on Total's site-specific tracking of CAPEX, it can be estimated that the water related to the yearly CAPEX has been stable in the RC segment. There is no particular Water-related CAPEX increase anticipated for 2020: the group's Long-Term Plan does not foresee any major additional investment in this field. Every year, the RC branch does an LTP exercise, including the HSE investments plan. In 2019, the investments forecasted for water subjects represented 32 M€ for RC branch, including studies and work to optimize wastewater treatments.

W7.3 Scenario analysis

(W7.3) Does your organization use climate-related scenario analysis to inform its business strategy?

Use of climate-related scenario analysis	Comment
Yes	Climate change is of paramount for Total Group's strategic vision. Total's Chairman of the Board and Chief Executive Officer, in accordance with the long-term strategic directions set by the Board, implements the Group's approach to climate, to reduce GHG emission for the Group's operated oil & gas facilities; to reduce the carbon intensity of the energy products used by the Group's customers; to monitor existing or emerging CO ₂ markets and to drive new-technology initiatives to reduce CO ₂ . Total aims to both reduce the environmental footprint and the CO ₂ emissions of its operations, and to actively contribute to finding solutions to limit the impact of climate change by providing its customers with a mix of energy products whose carbon intensity is expected to decrease with a reduced pressure on water resources.

W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?

Yes

(W7.3b) What water-related outcomes were identified from the use of climate-related scenario analysis, and what was your organization's response?

Climate-related scenario(s) and models applied	Description of possible water-related outcomes	Company response to possible water-related outcomes
IEA Sustainable Development Scenario	<p>Total's strategy adopts the IEA SDS (2°C) and focuses on targeted aspects:</p> <p>Low carbon transition: Oil demand should continue to grow and then crude oil prices would follow a downward trajectory from 2030 to converge towards 50\$/b in 2050. Natural gas will substitute to coal and be an alternative source to renewable energies.</p> <p>Renewable energies: Fuels or technologies used for the clean energy transition could increase water stress. Wind and solar PV require very little water and others can be more water-intensive. As per IEA an integrated approach focused on tackling climate change, delivering energy for all and reducing air pollution results in lower water withdrawals in 2030.</p> <p>Water scarcity: Water scarcity is having an impact on energy reliability. Diminished freshwater resources can lead to energy-intensive sources of water supply (desalination). There is significant potential for energy savings in the water sector if all the economically available energy efficiency and recovery potentials in the water sector are exploited.</p>	<p>Low carbon: 10%+ of Capex to low carbon electricity and 20% by 2030.</p> <p>Renewable energies: In GRP, solar panels are cradle to cradle certified and assessed on water footprint. Launch of less water intensive energies like wind.</p> <p>Water scarcity: The initiative One R&D Plan 2019+ provides impactful solutions to customers for a cleaner, safer, and more affordable energy. For WATER R&D, focus on industrial performance (viscosified water treatment, produced water reinjection and new technologies – salt removal) and on environmental performance (effluent characterization and monitoring, water usage analysis, water treatment, water management and Life cycle analysis). Low energy desalination technics have delivered few satisfaction but oil water separation or elimination gives positive results in 5 years. We support open innovation projects: start-up Adionics that uses solvents to desalinate and regenerates the solvent for another cycle,</p>

Climate-related scenario(s) and models applied	Description of possible water-related outcomes	Company response to possible water-related outcomes
	<p>There is a major opportunity to reduce water losses along the supply chain - leaks, bursts and theft.</p> <p>Carbon neutrality: The scenario results allowed Total to elaborate a new carbon ambition that is to be released by 2020: Net Zero across Total's worldwide operations by 2050 or sooner (scope 1+2), reduction in the average carbon intensity of energy products used worldwide by Total customers.</p>	<p>meaning that the water can be recycled and reused. In Abu Dhabi, the Taweelah A1 gas power plant, owned by GTTP (Total 20%) combines electricity generation and water desalination. The plant has a power generation capacity of 1.6 GW and a water desalination capacity of 385,000 m³/day. Production is sold to Abu Dhabi Water and Electricity Company as part of a long-term agreement.</p> <p>Carbon neutrality along value chain: The Group enables customers to capture, store, utilize or neutralize CO₂.</p>

Water pricing

(W7.4) Does your company use an internal price on water?

Does your company use an internal price on water?	Please explain
Yes	<p>As part of its ongoing work on natural risks identification, Total is undergoing natural capital valuation studies, which involves pricing water resources based on local scarcity parameters. As members of the NATURAL CAPITAL COALITION, we are currently collaborating with one of our peers in order to adopt a common water assessment approach to identify natural risks linked to our Oil&Gas activities. Water Neutrality concept is also under investigation particularly in non-conventional gas production sector.</p> <p>All water projects under development are based on a local water approach (local prices + fees + taxes linked to the context and project). This information is used when calculating OPEX & CAPEX for commercial developpement and maintenance operations.</p>

W8 Targets

Targets and goals

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
<ul style="list-style-type: none"> • Company-wide targets and goals • Site/facility specific targets and/or goals • Country level targets and/or goals 	<ul style="list-style-type: none"> • Targets are monitored at the corporate level • Goals are monitored at the corporate level 	<p>Safety, health, climate, environment and also shared development, in every country where the Group is present, Total steers its operations with the aim of working in a sustainable, active and positive manner. In relation with its Safety Health Environment Quality charter, Total considers respect for the environment to be a priority. Total strives to control its energy consumption, its emissions in natural environments (water, air, soil), its residual waste production, its use of natural resources and its impact on biodiversity. Targets are validated by the Executive Committee, in order to ensure the company's alignment with the industry's best practices. To this end, the HSE division and the HSE departments within the Group's entities seek to ensure both applicable local regulations and internal requirements resulting from the Safety Health Environment Quality Charter and the Group's additional commitments are respected. The Group was one of the first in the industry to publish measurable improvement targets in these areas. The Group places the environment at the heart of its ambition of being a responsible company with a goal to improve the environmental performance of the facilities and products.</p> <p>The Group's internal requirements state that the environmental management systems of the sites operated by the Group that are important for the environment must be ISO 14001 certified within two years of start-up of operations or acquisition: 100% of these 77 sites were compliant in 2019. Beyond these internal requirements, at the end of 2019, a total of 281 sites operated by the Group were ISO 14001 certified. In 2019, 7 sites were newly ISO 14001 certified.</p> <p>To sustain a circular economy including water issues, Total is a founding member of the Alliance to End Plastic Waste, launched in 2019, which brings together 42 companies in the plastics and consumer goods value chain. The Alliance's objective is to finance, to the extent of \$1.5 billion over five years, the development of solutions for the reduction and treatment (reuse, recycling and recovery) of used plastics, particularly in the oceans..</p> <p>A project aiming to generate lithium resources from production water using the concepts developed by the circular economy at our petroleum production waters and all along the value chain has been launched. The project will be extended to saline aquifer waters eventually extracted to manage pressure under CO2 injection, and to other metals of interest. A cartography of the resource has been initiated. A sufficient lithium concentration in deposits could provide an economic return and in co-construction with partners who distribute innovative technologies. The validation of the experiment is in progress and results will be analyse in short term.</p>

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Please complete the following table.

Target reference number	Category of target	Level	Primary motivation	Description of target	Quantitative metric
Target 1	Water pollution reduction	Company-wide	Risk mitigation	Total aims at maintaining the average hydrocarbon content of its water discharges below 30 mg/l for 100% of its offshore sites. This target is thus company-wide, and ensure a significant reduction of water-related risks exposure (water pollution risks). New objectives are under discussion for 2021-2025.	% reduction in concentration of pollutants
Baseline year	Start year	Target year	%of target achieved	Please explain	
2010	2010	2020	100%	In 2019, 100% of the Group's sites have met the target for the quality of offshore discharges.	

Target reference number	Category of target	Level	Primary motivation	Description of target	Quantitative metric
Target 2	Water pollution reduction	Company-wide	Risk mitigation	Total aims at maintaining the average hydrocarbon content of its water discharges below 15 mg/l for 100% of its onshore and coastal sites. This target is thus company-wide, and ensure a significant reduction of water-related risks exposure (water pollution risks). New objectives are under discussion for 2021-2025	% reduction in concentration of pollutants
Baseline year	Start year	Target year	% of target achieved	Please explain	
2010	2010	2020	100%	100% of the Group's sites have met the target for the quality of onshore discharges since 2016.	

Target reference number	Category of target	Level	Primary motivation	Description of target	Quantitative metric
Target 3	Watershed remediation and habitat restoration, ecosystem preservation	Company-wide	Risk mitigation	Regarding biodiversity, the Group is committed to systematically develop biodiversity action plans for production sites located in protected areas; not conducting oil and gas exploration or production operations in the area of natural sites listed on the UNESCO World Heritage List; not conducting exploration in oil fields under sea ice in the Arctic.	Other: % of business divisions raising awareness and triggering positive action among their business partners, customers and consumers regarding water security.
Baseline year	Start year	Target year	% of target achieved	Please explain	
2010	2010	2020	100%	A biodiversity action plan has been developed for all the operated production sites located in the most sensitive protected areas, corresponding to the UICN I to IV and Ramsar categories. Consequently, the biodiversity action plan developed in 2015 for Djeno in the Republic of the Congo is still being implemented, particularly with regards to the ecosystem services of Lagune de la Loubie. 6 biodiversity action plans were deployed or in preparation in 2019. 6 biodiversity action plans were deployed or in preparation in 2019. Other action plans are deployed in Italy (Tempa Rossa project) and in Mozambique (Mozambique LNG project) or are being prepared but not yet deployed in Uganda (Tilenga project), Tanzania (EACOP project) and Papua New Guinea (Papua LNG project).	

(W8.1b) Provide details of your corporate water goal(s) that are monitored at the corporate level and the progress made.

Goal	Level	Motivation	Description of goal	Baseline year	Start year	End year	Progress
Engagement with public policy makers to advance sustainable water policies and management	Company-wide	Water stewardship	<p>Total adopted this goal part of its commitment to be proactive on its management of natural resources, in line with its aim to become the most responsible energy major. This goal is monitored at group-level as it is a commitment for all Total's activities. Success is measured through the participation and completion of collaborative initiatives on this topic. Total engages with public policy makers in order to ensure the alignment of its activities with current and future expectations from them.</p> <p>These objectives were set in 2012 at corporate as part of the HSE chart and are part of a continuous effort (no end year), and therefore apply to the entire group. The Group participations in initiatives are defined at group level, hence the level of implementation.</p>	2012	2012	2020	<p>The progress towards this goal is measured through the initiatives in which Total participates. For example, 7 pilot research projects were conducted at Total's petrochemicals plant at the Normandy platform in the frame of the European Commission Initiative E4Water. The Environment Departement of the RC Sector at Total is also deeply engaged in the process of European Water Framework Directive fitness check and participates until march 2019 directly and indirectly through CONCAWE to the Public Consultation issued by the EU Commission. Total also participates to the UN Global Compact Sustainable Ocean Business Action Platform to define Oil&Gas standard practices for Ocean protection. Finally, through its leadership in the Environment Group at IPIECA, Total has an access to the UN Environment Assembly since IPIECA is granted an observer role there.</p> <p>We are measuring the progress of the different working groups working on engagement with policy makers. To assess the engagement performance, our objective to measure the goal of is to collect all the initiatives on our database SRM+. Thus, we follow the number and the quality of initiatives that have been continuously reported on the database. This allow us to define a KPI: 100% of our countries are actively engaged with their public stakeholders.</p>

Goal	Level	Motivation	Description of goal	Baseline year	Start year	End year	Progress
Other: Constant monitoring of sites' exposure	Company-wide	Risk mitigation	<p>Total has an internal goal to constantly monitor its exposure to water risk and to assess its water performance, through the screening of its global activities, and within a particular focus on sites identified as water risk priorities. This goal ensures the resilience of Total's business model. These assessments are made on an annual basis, through the collaboration of members of the environmental department. This goal is therefore implemented at corporate level, which is the most appropriate level to analyse and prioritize sites exposed to water stress.</p> <p>These objectives were set in 2012 at corporate level as part of the HSE chart and are part of a continuous effort (no deadline) and therefore apply to the entire group. The Group reporting and indicators are managed at group level, hence the level of implementation.</p>	2012	2012	2020	<p>The progress towards this goal is measured through the number of sites assessed using measurement tools: LWT and WRI Aqueduct software. In 2019, Total assessed 19 of the 22 identified at-risk sites and the results were disclosed in Total 2019 Registration Document (as indicated in the present CDP WATER SECURITY questionnaire).</p> <p>The assessment of the 3 remaining sites were started in 2019 and will be achieved in 2020</p> <p>Two new sites in GRP branch will be also assessed before end of 2021. Thus, the number of at-risk sites will amount to 26.</p> <p>Our goal is to assess 100% of the priority sites, and to assess new sites whenever they are into our portfolio.</p>

W9 Verification

Verification of water information

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

Yes

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
W8 Targets	<p>Environmental information linked to water issues: QUANTITATIVE</p> <ul style="list-style-type: none"> • Number of operated sites important for the environment ISO 14001 certified • Number and volumes of accidental hydrocarbon spills with an environmental impact and of more than one barrel • Number of sites whose risk analysis identified at least one risk of major accidental pollution to surface water • Proportion of those sites with an operational oil spill contingency plan • Proportion of those sites that have performed at least one oil spill response exercise during the year • Hydrocarbon content of offshore water discharges and percentage of sites that meet the Group target for the quality of offshore discharges • Hydrocarbon content of onshore water discharges and percentage of sites that meet the Group target for the quality of onshore discharges • Fresh water withdrawals excluding cooling water. 	ISAE 3000	<p>Verification has been performed by EY, a third party, accredited by the COFRAC. The report of March 2020 is presented in chapter 5 of Total's 2019 Universal Registration Document (5.12 p. 252-255). The work was performed in accordance with the articles A. 225-1 of the French Commercial Code, as well as with the professional guidance of the French Institute of Statutory Auditors (CNCC) and with ISAE 3000. The verification was carried out from corporate down to site level including a sample of contributing sites which cover between 4% and 13% of the consolidated data selected for these tests (6% of freshwater withdrawals). The verification work mobilized 9 people and took place between September 2019 and March 2020 on thirty weeks. EY conducted interviews with around 20 persons responsible for the preparation of the Statement including in particular the divisions HSE, Strategy & Climate, Legal Affairs, Finance, Human Resources, Civil Society Engagement, Support & Purchasing Performance, Strategy Research & Development on biofuels (of the Refining & Chemicals segment). Based on the procedures performed, nothing has come to their attention that causes to believe that the consolidated non-financial performance statement is not presented in accordance with the applicable regulatory requirements and that the Information, taken as a whole, is not presented fairly in accordance with the Guidelines, in all material respects.</p> <p>The Group's HSE audit protocol is based on the One MAESTRO framework and includes the requirements of the international standards ISO 14001:2015 and ISO 45001:2018. The Group's internal requirements state that the EMS of its operated sites that are important for the environment must be ISO 14001 certified within two years of start-up of operations or acquisition: At the end of 2019, a total of 281 of the sites operated by the Group were ISO 14001 certified. In 2019, 7 sites were newly ISO 14001 certified.</p>

W10 Signoff

Signoff

(W11.1) Provide details for the person that has signed off (approved) your CDP water response.

Response options

Please complete the following table:

Job title	Corresponding job category
Head of the People & Social Responsibility division (ExCom member of Total)	Chief Sustainability Officer (CSO)

Water Action Hub

(W11.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes