

Welcome to your CDP Water Security Questionnaire 2019

W0. Introduction

W0.1

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

Mars has been proudly family owned for over 100 years. It's this independence that gives us the gift of freedom to think in generations, not quarters, so we can invest in the long-term future of our business, our people and the planet — all guided by our enduring Principles. We believe the world we want tomorrow starts with how we do business today. Our bold ambitions must be matched with actions today from our more than 115,000 Associates in 80 countries around the world. Some of our current initiatives are:

- Investing \$1 billion over the next several years to become [sustainable in a generation](#)
- Working to improve the [wellbeing for families](#) around the world
- Leveraging and sharing our research to create a [better world for pets](#)

Every day we are one step closer to the world we want tomorrow, through our steadfast commitment to action today.

Our business and the actions we take every day are founded on The Five Principles. They're at the heart of everything we do, no matter what — making sure we don't just talk about a better future, but work towards it every day.

Through our Sustainable in a Generation Plan, we aim to grow our business in ways that are good for people, good for the planet and good for our business. The Plan sets new goals in three key areas: Healthy Planet, Thriving People and Nourishing Wellbeing. Within the Healthy Planet area, our ultimate water stewardship goal is to **eliminate water use in excess of sustainable levels throughout our value chain**.

We have a diverse global business comprised of four segments: Mars Petcare, Mars Wrigley, Mars Food, and Mars Edge. Our portfolio of brands offers quality and value to consumers around the world and includes PEDIGREE®, WHISKAS®, M&M'S®, SNICKERS®, MARS®, EXTRA®, ORBIT®, UNCLE BEN'S® and many more.

W-FB0.1a

(W-FB0.1a) Which activities in the food, beverage, and tobacco sector does your organization engage in?

Processing/Manufacturing

W0.2

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

	Start date	End date
Reporting year	January 1, 2018	December 31, 2018

W0.3

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

Argentina
Australia
Austria
Belgium
Brazil
Canada
China
Colombia
Czechia
Egypt
France
Germany
Hungary
India
Indonesia

Japan
Kenya
Lithuania
Mexico
Netherlands
New Zealand
Philippines
Poland
Russian Federation
Saudi Arabia
South Africa
Spain
Taiwan, Greater China
Thailand
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America

W0.4

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

USD

W0.5

(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

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

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Offices with fewer than 80 associates	We do not currently record water use at smaller office buildings, as their impact is not material compared with factories and larger offices.
Banfield Veterinary Hospitals	We do not currently record water use at these small veterinary hospitals. We expect their impact to be minimal compared with factories and larger offices.
Cocoa plantation, Ecuador	Small research and development operation not yet incorporated into Mars sustainability reporting. We expect its impact to be minimal compared with factories, especially as cocoa produced in this location is not irrigated.
VCA pet health care services	Recent acquisition not yet incorporated into Mars sustainability reporting.

W1. Current state

W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain

Sufficient amounts of good quality freshwater available for use	Vital	Vital	<p>Good quality freshwater is an essential ingredient in our products and vital for manufacturing in line with food safety regulations. It is also necessary for providing associates at our sites with facilities for eating and washing. Water stress could seriously affect our ability to operate, by causing quality problems, production downtime, poor relationships with communities sharing our water sources, or even site closure.</p> <p>In terms of indirect use, water is essential for growing and processing the crops we rely on as raw materials for our products, and for the health of the farming communities who grow them. Changing weather patterns as a result of climate change are threatening farmers' ability to grow some crops in some regions, threatening security of supply, farmer incomes and wellbeing.</p> <p>All manufacturing sites are dependent on freshwater for direct use. The level of dependence within our supply chain varies based on the crop and farming method used.</p>
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Not very important	<p>The level of dependency on recycled water for direct use in our operations varies based on the level of water stress. Using recycled water in our manufacturing is an important way to improve water efficiency in water-stressed areas. Sites in highly water-stressed areas are beginning to quantify the recycled water they use so we can monitor and report on this more fully in the future. For example, our Janaszowek site in Poland recycles treated waste water to reduce fresh water usage within its cooling towers which are the largest water user on the site. In addition, Mars Wrigley factories across Asia reuse treated waste water for onsite amenities, to lessen the burden on municipal treatment systems.</p> <p>Our assessments of water impacts in our supply chain show that blue water use and baseline water stress in the catchments where we source raw materials are our most material water impacts. We do not consider indirect use of recycled, brackish and/or produced water to be material.</p>

W-FB1.1a

(W-FB1.1a) Which water-intensive agricultural commodities that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.

Agricultural commodities	% of revenue dependent on these agricultural commodities	Produced and/or sourced	Please explain
Rice	10-20	Sourced	Rice is a key ingredient for brands including UNCLE BEN'S. We source rice from the United States, southern Europe, Pakistan and South East Asia. Most rice that we source is irrigated. We work with rice farmers to use alternate wetting and drying (AWD), an irrigation technique that reduces both water use and GHG emissions with little or no impact on yields. We prioritize our engagement on rice sourced from stressed locations.
Maize	41-60	Sourced	Maize is an important ingredient in our pet foods. We source maize from a number of countries globally. Our impact factors from the World Food Lifecycle database indicate that a portion of maize cultivation is irrigated, though we have limited location information on irrigation practices.
Other, please specify Sugar	41-60	Sourced	Sugar is an important ingredient for our Mars Wrigley brands. We source sugar globally, with our largest countries of supply being Brazil, Myanmar and China for sugarcane, and the United States, Netherlands and Russia for sugar beet. Our impact factors from the World Food Lifecycle database indicate that most sugar cane cultivation is irrigated, and sugar beet cultivation is irrigated in Russia and the United States. As we engage with our suppliers, we are further refining our data to understand the specific water risks within our sugar supply chain.
Other, please specify Mint	10-20	Sourced	Mint is a crucial ingredient for Mars Wrigley. We source mint in the United States, Canada and India. All mint sourced is irrigated, and we work with farmers to reduce water use, with a focus on areas of high baseline water stress.
Other, please specify	10-20	Sourced	Peanuts are an important ingredient for our SNICKERS brand. We source peanuts primarily in the United States, from irrigated sources. We work with farmers to reduce water use, with a

Peanuts			focus on areas of high baseline water stress.
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W1.2

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

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	76-99	All our factories and large offices report water withdrawal data on a periodic basis (every four weeks).
Water withdrawals – volumes from water stressed areas	76-99	We have conducted assessments to identify which of our sites are located in areas of high baseline water stress. These sites report water withdrawals every four weeks in line with our corporate reporting program.
Water withdrawals – volumes by source	76-99	We collect withdrawal data from four sources: municipal, ground, surface and rainwater. Some sites in the network use surface or ground water in closed cooling systems with all water returned to source with a very small temperature elevation. We believe this non-consumptive use has reduced environmental impact so we also distinguish this consumptive usage in our reporting. This information is collected as part of our corporate reporting program every four weeks.
Water withdrawals quality	76-99	We require sites to report water withdrawal quality incidents as part of our annual site water risk assessment process. Sites also monitor water withdrawals quality as part of their food safety procedures.
Water discharges – total volumes	76-99	We ask all our factories to report water discharge volume data and 45% now have metering capabilities in place to measure this. Thirty-four percent of sites rely on utility invoicing for this data, and the remainder estimate their wastewater volumes. Frequency of measurement depends on the frequency at which utility invoices are received.
Water discharges – volumes by destination	76-99	Our factories have reported data for water discharge volumes by destination since 2015. However, we still need to improve our data tracking system to increase accuracy. Some sites

		do not yet have the metering capabilities to measure this. From 2018, we now ask sites to report their wastewater discharge volume by destination as part of their four-weekly periodic reporting throughout the year, rather than at the end of the year. This will increase the accuracy and timeliness of the data.
Water discharges – volumes by treatment method	76-99	<p>At the corporate level, we ask sites to report on what level of wastewater treatment they utilize on-site (primary, secondary or tertiary/advanced treatment.) We also request total wastewater discharge volumes from the site. Generally, all discharged water as reported would flow through the indicated wastewater treatment process.</p> <p>Every site monitors this information at the local level and reviews wastewater destinations at least annually as part of their environmental compliance program. At a corporate level we have chosen to focus our targets on reducing water intake to the factories rather than begin with an “end of pipe” approach focused on treating waste water.</p>
Water discharge quality – by standard effluent parameters	76-99	We include site water discharge quality parameters within our corporate reporting program. We also monitor site compliance with our corporate waste water management standard. This requires sites to carry out semi-annual sampling of wastewater at each discharge location, or more frequent where required. Sampling should include but is not limited to temperature, oil and grease, BOD5, COD and TSS.
Water discharge quality – temperature	100%	Sites monitor water discharge temperature as a requirement of our Environmental Wastewater Management Standard. This requires sites to carry out semi-annual sampling of wastewater at each discharge location, or more frequent where required. Sampling should include but is not limited to temperature, oil and grease, BOD5, COD and TSS.
Water consumption – total volume	76-99	We calculate consumption data as [total water intake] - [waste water], and so total volume is dependent on the sites reporting these two categories as part of our four weekly periodic corporate reporting system.
Water recycled/reused	76-99	Three of our sites reported using reused or recycled water as part of the Mars Facility Water Stewardship Risk Assessment questionnaire in 2018. This is independent of sites using rainwater for irrigation or other on-site purposes.

The provision of fully-functioning, safely managed WASH services to all workers	100%	Access to safe drinking water and proper sanitation is a fundamental part of our food manufacturing business. It is monitored as part of our quality and food safety program and as part of our Responsible Workplace program, which both involve regular third-party audits.
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W1.2b

(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?

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	29,111.4	Lower	Total water withdrawals across Mars, Incorporated dropped in 2018 vs 2017 (-6%) due to a divestment of seven factories. Our operational water targets are focused on water stressed sites only, which decreased withdrawals by 1.3%. We expect further decreases in future as our sites continue to implement water stewardship programs.
Total discharges	7,874.7	Higher	There was an increase in total wastewater discharge (8%) compared to 2017. We expect reductions in future in line with decreased withdrawals, as our sites continue to implement water stewardship programs.
Total consumption	5,486.2	Much lower	We define Water Consumption as [Water Withdrawal (excluding non-consumptive surface water & non-consumptive ground water)] - [Water Discharge]. This year's consumption declined (-18%). This decrease was due to both a decrease in withdrawals and an increase in wastewater discharge. We expect further decreases in future as our sites continue to implement water stewardship programs.

W1.2d

(W1.2d) Provide the proportion of your total withdrawals sourced from water stressed areas.

	% withdrawn from	Comparison with	Identification	Please explain
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	stressed areas	previous reporting year	tool	
Row 1	17.4	Lower	WRI Aqueduct	Our withdrawals from stressed areas dropped 1.3% compared with 2017. This is predominantly a result of production decreases with some efficiency gains.

W-FB1.2e

(W-FB1.2e) For each commodity reported in question W-FB1.1a, do you know the proportion that is produced/sourced from water stressed areas?

Agricultural commodities	The proportion of this commodity produced in water stressed basins is known	The proportion of this commodity sourced from water stressed basins is known	Please explain
Rice	Not applicable	Yes	We map our supply chains and know the exact location for 61% of our rice supply, the town or region for 21% and country only for 9%. Based on these known locations and using WRI's Aqueduct tool, we have calculated that 34% of sourcing is in water stressed areas.
Maize	Not applicable	Yes	We map our supply chains and know the exact location for 40% of our supply, the town or region for 43% and the country only for 18%. Based on these known locations and using WRI's Aqueduct tool, we have calculated that 41% of sourcing is in water stressed areas.
Other commodities from W-FB1.1a, please specify Sugar	Not applicable	Yes	We map our supply chains and know the town or region for 98% of our sugar supply and the country only for 2%. Based on these known locations and using WRI's Aqueduct tool, we have calculated that 27% of sourcing is in water stressed areas.
Other commodities from W-FB1.1a, please specify	Not applicable	Yes	We map our supply chain and know the exact location for 13% of our mint supply, and the town or region for 87%. Based on these known locations and using WRI's Aqueduct tool, we have calculated that 40%

Mint			of sourcing is in water stressed areas.
Other commodities from W-FB1.1a, please specify Peanuts	Not applicable	Yes	We map our supply chain and know the exact location for 23% of our peanut supply, the town or region for 70% and the country only for 8%. Based on these known locations and using WRI's Aqueduct tool, we have calculated that 23% of sourcing is in water stressed areas.

W-FB1.2g

(W-FB1.2g) What proportion of the sourced agricultural commodities reported in W-FB1.1a originate from water stressed areas?

Agricultural commodities	% of total agricultural commodity sourced in water stressed areas	Please explain
Maize	30.1	<p>This is calculated considering the percentage by weight of this material sourced from water stressed areas, defined as those areas having a BWS score of 40% or above (from WRI Aqueduct).</p> <p>Some sourcing locations are not known to the level of the specific origin coordinates. 17.5% of corn is sourced from areas that have low origin accuracy, meaning we know only country level origin. This makes up 1.7% of corn sourcing calculated to be in stressed areas based on country average BWS, and accounts for 18.6% of the gap to sustainable water in corn. We are working to improve both origin specificity and BWS averaging capabilities to improve the accuracy of this data.</p>
Rice	33.6	<p>This is calculated considering the percentage by weight of this material sourced from water stressed areas, defined as those areas having a BWS score of 40% or above (from WRI Aqueduct).</p> <p>Some sourcing locations are not known to the level of the specific origin coordinates. 9.3% of rice comes from areas where we have low origin accuracy. In these cases, BWS is determined at a point within a larger geographic area (city, state, country). This makes up only 2.1% of the assumed gap to sustainable water as these countries mostly have low average BWS. We are working to improve both origin specificity and BWS averaging capabilities to improve the accuracy of this data.</p>

Other sourced commodities from W-FB1.2e, please specify Sugar	21.1	<p>This is calculated considering the percentage by weight of this material sourced from water stressed areas, defined as those areas having a BWS score of 40% or above (from WRI Aqueduct).</p> <p>Some sourcing locations are not known to the level of the specific origin coordinates. Only 2.1% of sugar comes from low accuracy locations, making up 1.4% of our calculated gap to sustainable water for the commodity. In these cases, BWS is determined at a point within a larger geographic area (city, state, country). We are working to improve both origin specificity and BWS averaging capabilities to improve the accuracy of this data.</p>
Other sourced commodities from W-FB1.2e, please specify Mint	40.1	<p>This is calculated considering the percentage by weight of this material sourced from water stressed areas, defined as those areas having a BWS score of 40% or above (from WRI Aqueduct).</p> <p>100% of mint comes from areas with high or medium location accuracy.</p>
Other sourced commodities from W-FB1.2e, please specify Peanuts	22.7	<p>"This is calculated considering the percentage by weight of sourcing of this material coming from water stressed areas, defined as those areas having a BWS score of 40% or above (from WRI Aqueduct).</p> <p>"This is calculated considering the percentage by weight of sourcing of this material coming from water stressed areas, defined as those areas having a BWS score of 40% or above (from WRI Aqueduct).</p> <p>100% of peanut farms have high location accuracy thus our water calculations are as good as the BWS values attained from WRI"</p>

W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous	Please explain
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			reporting year	
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	13,760.25	Lower	<p>Treated fresh surface water is relevant as it can be used in our products and processes, depending on the site.</p> <p>The total volume of fresh surface water withdrawn is lower than last year (~8.8%) due to on-going water reduction activities and divestment of seven factories in 2018. Some of our sites use surface water in a non-consumptive way only, comprising 13,384 MI of this total. This water is discharged with only a slight temperature change. Approximately 35 MI of this total is recycled rainwater. We expect reductions relative to production volumes to continue in future as we implement our water efficiency initiatives.</p>
Brackish surface water/Seawater	Not relevant			No withdrawal from this source.
Groundwater – renewable	Relevant	4,768.52	Lower	<p>Treated groundwater is relevant as it can be used in our products and processes, depending on the site.</p> <p>This volume is lower than last year, due to ongoing water reduction activities in water-stressed locations.</p> <p>This value includes "non-consumptive" groundwater used for cooling (2,466 MI), which is returned to the source.</p> <p>We expect reductions relative to production volumes to continue in future as we implement our water efficiency initiatives.</p>
Groundwater – non-renewable	Relevant	292.96	Lower	Treated groundwater is relevant as it can be used in our products and processes, depending on the site.

				This value is higher than in 2017, but this source is applicable for only one site and makes up a very small portion of our water withdrawal. It is therefore relevant but not material. We expect reductions relative to production volumes to continue in future as we implement our water efficiency initiatives.
Produced/Entrained water	Not relevant			
Third party sources	Relevant	10,289.68	Lower	<p>Water from third-party sources is relevant as it can be used in our products and processes, depending on the site.</p> <p>This volume is lower than last year's reported value of 10,642 MI.</p> <p>We expect reductions relative to production volumes to continue in future as we implement our water efficiency initiatives.</p>

W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	484	Higher	<p>This is relevant because some sites may discharge treated production water to fresh surface water.</p> <p>This figure is 8% higher than last year. We believe this is due to improved reporting rather than actual increased volumes.</p> <p>We expect discharges to this destination to stay the same or reduce in future.</p>

Brackish surface water/seawater	Not relevant			We make no discharges to this source. We expect this to remain the case in future.
Groundwater	Relevant	453	Higher	<p>This is relevant because some sites may discharge treated production water to groundwater sources.</p> <p>This figure is 8% higher than last year. We believe this is due to improved reporting rather than actual increased volumes.</p> <p>We expect discharges to this destination to stay the same or reduce in future.</p>
Third-party destinations	Relevant	6,938	Higher	<p>This is relevant because some sites may discharge treated production water to groundwater sources.</p> <p>This figure is 9% higher than last year. We believe this is due to improved reporting rather than actual increased volumes.</p> <p>We expect discharges to this destination to stay the same or reduce in future.</p>

W1.2j

(W1.2j) What proportion of your total water use do you recycle or reuse?

	% recycled and reused	Comparison with previous reporting year	Please explain
Row 1	1-10	About the same	<p>This is our second year of measuring this indicator. At this time, we still only have three sites that report using recycled water and therefore the volume and proportion has stayed about the same as last year.</p> <p>Reusing and recycling process water reduces the need to withdraw freshwater.</p>

			We know that additional sites are still to report this data, and for that reason we expect this percentage to increase in future years.
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W-FB1.3

(W-FB1.3) Do you collect/calculate water intensity for each commodity reported in question W-FB1.1a?

Agricultural commodities	Water intensity information for this produced commodity is collected/calculated	Water intensity information for this sourced commodity is collected/calculated	Please explain
Maize	Not applicable	Yes	Generally, our water intensity data for crops is derived using values from the World Food Lifecycle Database (WFLDB) or other similar LCA databases (ecoinvent, etc.). Wherever possible, we aim to improve the specificity and relevance of this data for our own supply chains by engaging with suppliers to understand the specific water intensities related to their products.
Rice	Not applicable	Yes	Generally, our water intensity data for crops is derived using values from the World Food Lifecycle Database (WFLDB) or other similar LCA databases (ecoinvent, etc.). Wherever possible, we aim to improve the specificity and relevance of this data for our own supply chains by engaging with suppliers to understand the specific water intensities related to their products. Through mapping our rice supply chains and engaging with our suppliers and farmers, we have been able to improve the generic LCA data with irrigation values more specific to our own supply.
Other commodities from W-FB1.1a, please specify	Not applicable	Yes	Generally, our water intensity data for crops is derived using values from the World Food Lifecycle Database (WFLDB) or other similar LCA databases (ecoinvent, etc.). Wherever possible, we aim to

Sugar			improve the specificity and relevance of this data for our own supply chains by engaging with suppliers to understand the specific water intensities related to their products.
Other commodities from W-FB1.1a, please specify Mint	Not applicable	Yes	Generally, our water intensity data for crops is derived using values from the World Food Lifecycle Database (WFLDB) or other similar LCA databases (ecoinvent, etc.). Wherever possible, we aim to improve the specificity and relevance of this data for our own supply chains by engaging with suppliers to understand the specific water intensities related to their products. Through mapping our mint supply chains and engaging with our suppliers, we know that water intensity for mint from our US sourcing regions is about half of generic LCA values.
Other commodities from W-FB1.1a, please specify Peanuts	Not applicable	Yes	Generally, our water intensity data for crops is derived using values from the World Food Lifecycle Database (WFLDB) or other similar LCA databases (ecoinvent, etc.). Wherever possible, we aim to improve the specificity and relevance of this data for our own supply chains by engaging with suppliers to understand the specific water intensities related to their products.

W-FB1.3b

(W-FB1.3b) Provide water intensity information for each of the agricultural commodities identified in W-FB1.3 that you source.

Agricultural commodities

Rice

Water intensity value (m3)

1,904.4

Numerator: Water aspect

Freshwater withdrawals

Denominator: Unit of production

Tons

Comparison with previous reporting year

Much lower

Please explain

Water intensity is calculated as blue water withdrawals (m3) per metric tonne produced. This is a weighted average of all of our sourcing of this commodity, so may include both irrigated and rain-fed crops, in water-stressed and non-stressed locations. We also source different material fractions / co-products derived from the crop, and these are included with their appropriate water allocation within this calculation (economic approach).

Our strategy is to focus on suppliers of irrigated crops in areas of water scarcity identified using WRI Aqueduct. Due to significant programs such as our engagement with rice growers in Asia to implement the Sustainable Rice Platform standard, we have lowered water intensity for this crop nearly 60% from last year.

As we use this data to further engage suppliers, aiming to improve data accuracy and spread good agricultural practices to reduce water use in stressed areas, we expect that water intensity for this commodity will reduce further.

Agricultural commodities

Maize

Water intensity value (m3)

176.8

Numerator: Water aspect

Freshwater withdrawals

Denominator: Unit of production

Tons

Comparison with previous reporting year

Much higher

Please explain

Water intensity is calculated as blue water withdrawals (m3) per metric tonne produced. This is a weighted average of all of our sourcing of this commodity, so may include both irrigated and rain-fed crops, in water stressed and non-stressed locations. We also source different material fractions / co-products derived from the crop, and these are included with their appropriate water allocation within this calculation (economic approach).

Our strategy is to focus on suppliers of irrigated crops in areas of water scarcity identified using WRI Aqueduct. We gathered more accurate maize sourcing data in 2018, which is the reason for the increase.

As we use this data to further engage suppliers, aiming to improve data accuracy and spread good agricultural practices to reduce water use in stressed areas, we expect that water intensity for this commodity will reduce .

Agricultural commodities

Other sourced commodities from W-FB1.3, please specify

Sugar

Water intensity value (m3)

184.2

Numerator: Water aspect

Freshwater withdrawals

Denominator: Unit of production

Tons

Comparison with previous reporting year

Lower

Please explain

Water intensity is calculated as blue water withdrawals (m3) per metric tonne produced. This is a weighted average of all of our sourcing of this commodity, so may include both irrigated and rain-fed crops, in water stressed and non-stressed locations. We also source different material fractions / co-products derived from the crop, and these are included with their appropriate water allocation within this calculation (economic approach).

Our strategy is to focus on suppliers of irrigated crops in areas of water scarcity identified using WRI Aqueduct. Water intensity for sugar was slightly higher this year, reflecting shifts in location sourced from and the associated difference in irrigation intensities, as well as improved location data accuracy.

As we use this data to further engage suppliers, aiming to improve data accuracy and spread good agricultural practices to reduce water use in stressed areas, we expect that water intensity for this commodity will reduce further.

Agricultural commodities

Other sourced commodities from W-FB1.3, please specify

Mint

Water intensity value (m3)

44,635.8

Numerator: Water aspect

Freshwater withdrawals

Denominator: Unit of production

Tons

Comparison with previous reporting year

Higher

Please explain

Water intensity is calculated as blue water withdrawals (m3) per metric tonne produced. This is a weighted average of all of our sourcing of this commodity, so may include both irrigated and rain-fed crops, in water stressed and non-stressed locations. We source the primary end product of mint cultivation, mint oil, which is highly concentrated. This explains why the water intensity for this commodity (per tonne of mint oil) is very high in comparison to other crops.

Our strategy is to focus on suppliers of irrigated crops in areas of water scarcity identified using WRI Aqueduct. The higher intensity reported is due to more accurate data collection versus last year, which has offset savings made by our Mint Advance water-saving program with suppliers.

As we use this data to further engage suppliers, aiming to improve data accuracy and spread good agricultural practices to reduce water use in stressed areas, we expect that water intensity for this commodity will reduce.

Agricultural commodities

Other sourced commodities from W-FB1.3, please specify
Peanuts

Water intensity value (m3)

523.7

Numerator: Water aspect

Freshwater withdrawals

Denominator: Unit of production

Tons

Comparison with previous reporting year

Higher

Please explain

Water intensity is calculated as blue water withdrawals (m3) per metric tonne produced. This is a weighted average of all of our sourcing of this commodity, so may include both irrigated and rain-fed crops, in water stressed and non-stressed locations. We also source different material fractions / co-products derived from the crop, and these are included with their appropriate water allocation within this calculation (economic approach).

Our strategy is to focus on suppliers of irrigated crops in areas of water scarcity identified using WRI Aqueduct. Water intensity for peanuts was higher this year, reflecting improved data accuracy.

As we use this data to further engage suppliers, aiming to improve data accuracy and spread good agricultural practices to reduce water use in stressed areas, we expect that water intensity for this commodity will reduce.

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

Yes, our suppliers

Yes, our customers or other value chain partners

W1.4a

(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

Row 1

% of suppliers by number

76-100%

% of total procurement spend

76-100

Rationale for this coverage

First-tier suppliers are required to comply with our Supplier Code of Conduct, which asks them to continuously strive to improve environmental performance and minimize impacts such as water. At end-2018, more than 85% of suppliers aligned with our requirements.

As part of our Sustainable in a Generation Plan, our goal is to eliminate water use in excess of sustainable levels. We've mapped total water use across our global supply chain and assessed whether that water comes from natural rainfall or irrigation. Where we rely on irrigation, we've assessed whether the watersheds used are experiencing stress, and are prioritizing suppliers operating in watersheds under the most stress and where our agricultural water use is greatest. These watersheds are in Australia, India, Pakistan, Spain and the United States. We focus on water impacts with suppliers using significant withdrawals for irrigated crops in water-stressed locations. We incentivize these suppliers through direct engagement.

Impact of the engagement and measures of success

As we implement our Sustainable in a Generation Plan, we are integrating sustainability into the Mars Strategic Sourcing Methodology, the process our buyers use to develop sourcing strategies. For example, our rice, mint and tomatoes procurement teams all have strategies in place to address water use associated with growing these crops in locations with high baseline water stress. The process enables our teams to develop water footprints, benchmark suppliers against optimal local blue water consumption based in part on data suppliers provide, and make recommendations for improving performance. We are also conducting field studies with suppliers of various crops in different countries, including rice in India and Pakistan, mint in India and the USA, tomatoes in Greece and peanuts in the USA. The results inform our future sourcing strategies. We develop metrics for suppliers on a project-by-project basis. At end-2018, more than 85% of suppliers aligned with our Supplier Code of Conduct.

Comment

W1.4b

(W1.4b) Provide details of any other water-related supplier engagement activity.

Type of engagement

Innovation & collaboration

Details of engagement

Encourage/incentivize innovation to reduce water impacts in products and services
Encourage/incentivize suppliers to work collaboratively with other users in their river basins
Educate suppliers about water stewardship and collaboration
Provide training and support on sustainable agriculture practices to improve water stewardship

% of suppliers by number

1-25

% of total procurement spend

Unknown

Rationale for the coverage of your engagement

We've mapped the total water use across our global supply chains and assessed whether that water comes from natural rainfall or irrigation. Where we currently rely on irrigation, we've assessed whether the watersheds used for that water are experiencing stress, and we're prioritizing those watersheds under the most stress and where our agricultural water use is greatest. These watersheds are located in Australia, India, Pakistan, Spain and the United States. Our procurement teams are working with suppliers to target raw materials sourced in those watersheds.

Impact of the engagement and measures of success

We develop metrics for suppliers on a project-by-project basis. For example, as a leading member of the Sustainable Rice Platform (SRP), with partners such as UN Environment, the International Rice Research Institute and WWF, we're supporting 2,000 basmati rice farmers in Pakistan and India to improve productivity and reduce water use. In Pakistan, pilots have shown a 32% increase in farmer income and a 30% reduction in water use since the project began. Mars is committed to ensuring that 100% of our Food segment rice farmers are working towards the standard by 2020, and 100% of our highest risk farmers growing basmati rice in India and Pakistan have already achieved this.

Comment

Additional examples of supplier innovation and collaboration include our work with tomato suppliers to develop regional blue water footprint benchmarks for Australia, Greece, Spain and the USA. This helps us understand supplier and farmer performance against a regional benchmark, so we can recommend how to close the gap to sustainable water use levels for their region.

Type of engagement

Incentivizing for improved water management and stewardship

Details of engagement

Offer financial incentives to suppliers improving water management and stewardship across their own operations and supply chain

% of suppliers by number

Unknown

% of total procurement spend

Unknown

Rationale for the coverage of your engagement

We've mapped the total water use across our global supply chains and assessed whether that water comes from natural rainfall or irrigation. Where we currently rely on irrigation, we've assessed whether the watersheds used for that water are experiencing stress, and we're prioritizing those watersheds under the most stress and where our agricultural water use is greatest. These watersheds include India and Pakistan, both important rice-sourcing locations.

Impact of the engagement and measures of success

Since 2016, Mars Food's partnerships with basmati rice farmers in India and Pakistan have increased incomes by reducing water use. The results have boosted quality and productivity, enabling farmers to earn a \$54 per tonne premium for producing Sustainable Rice Platform verified rice. This is particularly important in India, where rice farmers must more than double their household incomes to rise above the World Bank poverty line.

The Mars procurement team's role has broadened to facilitate partnerships across the value chain, in order to catalyze investment and create the mechanisms required for systemic change. Mars is now investing in a comprehensive resilience framework that will enable rice growers to sustain their increased incomes by adapting to climate change and absorbing markets shocks.

Comment

Type of engagement

Onboarding & compliance

Details of engagement

Inclusion of water stewardship and risk management in supplier selection mechanism

Requirement to adhere to our code of conduct regarding water stewardship and management

% of suppliers by number

1-25

% of total procurement spend

Unknown

Rationale for the coverage of your engagement

In addition to our targeted approach with high-impact suppliers, our first-tier suppliers undergo Responsible Sourcing audits on a risk basis to ensure compliance with our Supplier Code of Conduct. Our Supplier Code of Conduct asks all suppliers to continuously strive to improve their environmental performance, and further recommends that suppliers minimize and monitor their impact on the environment including by reducing water impacts.

Impact of the engagement and measures of success

As of end-2018, more than 85% of our suppliers were in alignment with our Responsible Sourcing requirements.

Comment

W1.4c

(W1.4c) What is your organization's rationale and strategy for prioritizing engagements with customers or other partners in its value chain?

Our Sustainable in a Generation Plan is value-chain wide. As we work towards our goal to ensure water use in our value chain is within annually renewable levels by watershed, we are engaging with major retail customers to understand their needs and how we can work together towards a common end goal.

Examples of methods and strategies for engagement: we participate in Walmart's annual supplier scorecard process, and have partnered with UK retailer M&S, along with WWF, to identify potential collaborative water stewardship opportunities. In celebration of World Water Day, we again joined the METRO Water Initiative to engage the public and create awareness around the need for water stewardship. Specifically, our UNCLE BEN'S® and WRIGLEY® displays in METRO stores in 15 markets showed consumers how our sourcing practices are saving water. As a measure of success, our participation led to increased net sales for promoted products in 12 markets versus the previous year.

Our annual Mars Facility Water Risk Assessment Process assesses how sites engage with key partners in their watershed and how they ensure that any significant water-related decisions take into account other basin actors, such as regulators, river basin management authorities and local communities. In addition, our supply chain risk assessments calculate how much of the water available in a catchment area is needed to grow our raw materials, and how much remains for other users.

We select expert partners for our water stewardship activities, such as UN Environment, the International Rice Research Institute and WWF, our partners in the Sustainable Rice Platform through which we're supporting 2,000 basmati rice farmers in Pakistan and India to improve productivity and reduce water use.

W2. Business impacts

W2.1

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

Yes

W2.1a

(W2.1a) Describe the water-related detrimental impacts experienced by your organization, your response, and total financial impact.

Country/Region

United States of America

River basin

Brazos River

Type of impact driver

Physical

Primary impact driver

Other, please specify

Material discharge to wastewater

Primary impact

Reduction or disruption in production capacity

Description of impact

Slug discharge exceeded five times the site's annual average on four occasions. The reduction in production capacity did not have a substantive impact on the site or the business.

Primary response

Increased capital expenditure

Total financial impact

0

Description of response

An engineering study is underway to identify the site's wastewater treatment plant needs, which may lead to an expansion of the current facilities. The total financial impact will depend on the recommendations resulting from this study.

Country/Region

United States of America

River basin

Brazos River

Type of impact driver

Physical

Primary impact driver

Other, please specify

Material discharge to wastewater

Primary impact

Other, please specify

Water and wastewater related regulations

Description of impact

The site exceeded the permitted copper limits in its wastewater discharges. The impact was not substantive for the site of the business.

Primary response

Increased capital expenditure

Total financial impact

100

Description of response

The financial impact provided is the value of the fine from the local authority. The site has conducted a wastewater monitoring program for copper and installed an extruder non-contact cooling water reuse system to prevent further instances.

Country/Region

Canada

River basin

Don

Type of impact driver

Physical

Primary impact driver

Other, please specify

Increased water and wastewater related regulations

Primary impact

Increased capital costs

Description of impact

An off-site storm water release resulted in a one-off payment to the Ministry of the Environment, Conservation and Parks.

Primary response

Water-related capital expenditure

Total financial impact

386

Description of response

The site implemented a color system and stormwater improvement projects.

Country/Region

Spain

River basin

Ebro

Type of impact driver

Physical

Primary impact driver

Other, please specify

A breach in discharge consent

Primary impact

Reduction or disruption in production capacity

Description of impact

The pH and conductivity parameters from water discharged from the site's boiler were above threshold values. The resulting reduction in production capacity was not substantive to the site or business.

Primary response

Water-related capital expenditure

Total financial impact

0

Description of response

The water treatment plant for the boiler has been refurbished and an automated pH pump has been added to ensure both parameters are compliant.

Country/Region

Russian Federation

River basin

Volga

Type of impact driver

Regulatory

Primary impact driver

Other, please specify

A breach in discharge consent

Primary impact

Reduction or disruption in production capacity

Description of impact

The site exceeded discharge norms for organic matter, as its treatment plant does not currently include biological treatment. The breach did not have a substantive impact on the site or the business.

Primary response

Increased capital expenditure

Total financial impact

25,125

Description of response

The site is building a new, full-cycle wastewater treatment plant to prevent any recurrences, which will come online in 2020. The financial impact provided is the cost of construction.

W2.2

(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

Yes, enforcement orders or other penalties

W2.2a

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

Row 1

Total number of fines

43

Total value of fines

28,610

% of total facilities/operations associated

3.8

Number of fines compared to previous reporting year

Higher

Comment

The number of fines has increased significantly from 17 to 43, but the value of these fines rose only slightly, from \$27,700 to \$28,611.

W2.2b

(W2.2b) Provide details for all significant fines, enforcement orders, and/or penalties for water-related regulatory violations in the reporting year, and your plans for resolving them.

Type of penalty

Fine

Financial impact

25,125.3

Country/Region

Russian Federation

River basin

Volga

Type of incident

Spillage, leakage or discharge of potential water pollutant

Description of penalty, incident, regulatory violation, significance, and resolution

These penalties are for exceeding the discharge norms for organic matter due to the lack of a biological treatment stage at our Luzniki site in Russia. This site currently has only a physical-chemical pre-treatment system. A new, full-cycle wastewater treatment plant is being constructed and will be ready in 2020, which will address this problem.

W3. Procedures

W-FB3.1

(W-FB3.1) How does your organization identify and classify potential water pollutants associated with its food, beverage, and tobacco sector activities that could have a detrimental impact on water ecosystems or human health?

Our corporate waste water management standard requires sites to identify potential water pollutants associated with our manufacturing operations and sets out our requirements for water discharge quality. The standard requires our facilities to manage wastewater in a manner which achieves the following: 1) protection of human health, 2) protection of the environment, 3) meets applicable regulatory compliance requirements, and 4) adheres to the minimum requirements as set forth in the standard. It also requires each facility to establish and maintain a current facility-wide inventory identifying all sources of wastewater including a qualitative description of the characteristics, management method and presence or absence of flow measuring devices. Each facility shall establish and maintain a wastewater discharge monitoring program to document the nature of wastewater effluent discharged from the site (e.g., to the local municipal treatment works or surface water body).

We have defined the key wastewater characteristics most material to our manufacturing operations, which can impact the wider environment. Our program therefore includes periodic sampling of wastewater characteristics before and after any on-site wastewater treatment process at each discharge location, including but not limited to the following identified pollutants: temperature, pH, Oil & Grease (O&G), Biochemical Oxygen Demand (BOD5) and/or Chemical Oxygen Demand (COD), and total suspended solids (TSS) concentration, or as specified in a discharge permit.

We require our sites to report on these water discharge quality parameters within our corporate reporting program. Our Global Water Team continues to develop our thinking and action plans for waste water impact reduction.

Our value chain water target is focused on reducing absolute water withdrawals in stressed watersheds, and this is our key area of focus. However, when we become aware of adverse water quality impacts that are material to our sourcing activities we will work with our suppliers to address them.

For example, rice represents over 75% of the water savings required in stressed locations to meet our SiG Plan water target, and so is the primary focus of our supply chain water work. Mars partnered with around 30 other organizations to create the Sustainable Rice Platform standard for rice cultivation. The standard is based on peer reviewed best practices for rice cultivation and includes a strong focus on sustainable water withdrawals and pollution control, seeking to ensure that "inbound water is obtained from clean sources that are free of biological, saline, and heavy metal contamination." It also covers the need to manage drainage in such a way to ensure that contamination of surface water with fertilizers and pesticides through run off is avoided. Mars is committed to ensuring that 100% of our Food segment rice farmers are working towards the standard by 2020, and 100% of our highest risk farmers growing basmati rice in India and Pakistan have already achieved this.

W-FB3.1a

(W-FB3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your food, beverage, and tobacco sector activities.

Potential water pollutant

Chemicals formed during processing, storage and distribution (e.g., acrylamide, aflatoxins)

Activity/value chain stage

Manufacturing – direct operations

Description of water pollutant and potential impacts

Based on Environmental Impact Assessments of new capital investments, our sites ensure that environmental risks are properly managed through plant design and operational procedures. This includes preventing the accidental release or spillage of hazardous materials such as cleaning chemicals, oils or liquid fuels. The assessment process is also used to ensure that effective treatment systems are installed to treat factory waste water.

Our manufacturing sites monitor and treat wastewater before discharge to address pollution impacts including but not limited to: temperature, pH, Oil and Grease, Biochemical Oxygen Demand (BOD5) and/or Chemical Oxygen Demand (COD), and total suspended solids (TSS) concentration, or as specified in a discharge permit. The majority of sites pre-treat their waste water and send it to municipal treatment facilities, however a number fully treat their waste water for discharge to surface water, these sites apply rigorous monitoring and management practices to control pollution risks to avoid pollution of rivers and streams with fat, grease, dissolved sugars and other by-products of food production processes.

Management procedures

Waste water management
Follow regulation standards

Please explain

Controls to manage potential water pollution risks are included in the design of our facilities and by defining operational procedures at the environmental impact assessment stage of capital investment projects. These controls include precautions such as bunding of storage tanks, provision of automatic monitoring systems, drainage segregation and collection tanks, inspection and testing of drainage systems, staff training, waste water treatment plants.

Our corporate waste water management standard sets out our requirements for water discharge quality. The standard requires our facilities to manage wastewater in a manner which achieves the following: 1) protection of human health, 2) protection of the environment, 3) meets applicable regulatory compliance requirements, and 4) adheres to the minimum requirements as set forth in the standard. It also requires each facility to establish and maintain a current facility-wide inventory identifying all sources of wastewater including a qualitative description of the characteristics, management method and presence or absence of flow measuring devices. Each facility shall establish and maintain a wastewater discharge monitoring program to document the nature of wastewater effluent discharged from the site (e.g., to the local municipal

treatment works or surface water body). The program should include periodic sampling of wastewater characteristics before and after any on-site wastewater treatment process at each discharge location.

Potential water pollutant

Pesticides and other agrochemical products

Activity/value chain stage

Agriculture – supply chain

Description of water pollutant and potential impacts

Water pollution from agrochemical and animal waste runoff are risks from agricultural activities in our extended value chain. Nitrate pollution of water bodies in agricultural areas through excessive fertilizer use or poor management practices can cause toxic algal bloom. Pesticide residues such as organophosphates, organochlorines and pyrethroids can contaminate ground water. Animal waste run off can result in pathogens such as cryptosporidium in surface water.

Management procedures

Soil conservation practices
Crop management practices
Sustainable irrigation and drainage management
Fertilizer management
Pesticide management
Waste water management
Follow regulation standards

Please explain

Our Sustainable in a Generation Plan includes goals for reducing climate, water and land impacts and increasing farmer incomes. Much of our work to achieve these goals focuses on increasing agricultural efficiency. As we work with suppliers and farmers in our supply chain to improve their agricultural practices to grow more with less, we are in some cases reducing inputs, while increasing yields and reducing GHG emissions and water withdrawals.

Rice represents over 75% of the water savings required in stressed locations to meet our SiG Plan water target, and so is the primary focus of our supply chain water work. Mars has partnered with around 30 other organisations to create the Sustainable Rice Platform best practice standard for rice cultivation. The standard includes a strong focus on sustainable water withdrawals and pollution control, seeking to ensure that "inbound water is obtained from clean sources that are free of biological, saline, and heavy metal contamination." It also covers the need to manage drainage in such a way to ensure that contamination of surface water with fertilizers and pesticides through run off is avoided. Mars is committed to ensuring that 100% of our Food segment rice farmers are working towards the standard by 2020, and 100% of our highest-risk basmati rice farmers in India and Pakistan have already achieved this.

In addition, our target to reduce unsustainable water use in our agricultural supply chain is designed to ensure we play our part in protecting wider watersheds.

W3.3

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

Yes, water-related risks are assessed

W3.3a

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

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Annually

How far into the future are risks considered?

>6 years

Type of tools and methods used

Tools on the market
International methodologies
Databases

Tools and methods used

WRI Aqueduct
WWF-DEG Water Risk Filter
Environmental Impact Assessment
Life Cycle Assessment
IPCC Climate Change Projections
Alliance for Water Stewardship Standard
Other, please specify
Internal company methodologies

Comment

We identify direct operations at high or extreme risk of water stress using the World Resources Institute Aqueduct tool. In addition, all sites complete the Mars Facility Water Stewardship Risk Assessment Questionnaire developed in partnership with WRI, which includes increased water accounting plus assessment of current and future implications, and the site's response. We are also analyzing usage data for comparable sites to prioritize action at less efficient facilities.

Supply chain

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Annually

How far into the future are risks considered?

>6 years

Type of tools and methods used

Tools on the market

International methodologies

Databases

Tools and methods used

WRI Aqueduct

WWF-DEG Water Risk Filter

Life Cycle Assessment

IPCC Climate Change Projections

Alliance for Water Stewardship Standard

Other, please specify

Impact assessment devised with Quantis

Comment

Assessment of water impacts across our value chain shows that raw material sourcing accounts for over 98% of the water used, because of crop irrigation and livestock needs. By overlaying our raw material origins with watersheds, we have cross-referenced water-intensive crops with areas of high baseline water stress to identify priority watersheds for further action. This work is informing our sustainable sourcing strategies for raw materials with high water impact, such as mint, rice and sugar.

Other stages of the value chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Not defined

How far into the future are risks considered?

>6 years

Type of tools and methods used

Tools on the market

International methodologies

Databases

Tools and methods used

WRI Aqueduct

Life Cycle Assessment

IPCC Climate Change Projections

Alliance for Water Stewardship Standard

Comment

Assessment of water impacts across our value chain shows that raw material sourcing accounts for over 98% of the water used, because of crop irrigation and livestock needs. For this reason, our water stewardship strategy focuses on our agricultural supply chain. We are also taking action in our direct operations, where we have the most control. Water impacts at other value chain stages such as the consumer use phase are much less materials and are not currently a priority within our SiG Plan.

W3.3b

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

	Relevance & inclusion	Please explain
Water availability at a	Relevant,	Our factories cannot operate without a continuous clean water supply both as an ingredient in our

basin/catchment level	always included	<p>products and for use in processes that meet food safety standards. We use WRI Aqueduct to assess water availability at all sites, and The Mars Facility Water Stewardship Risk Assessment Questionnaire to assess water quality and availability issues at all our sites.</p> <p>In our agricultural supply chain, we have mapped total water use and assessed whether that water comes from natural rainfall or irrigation. Where we currently rely on irrigation, we've assessed whether the watersheds used for that water are experiencing stress, and we're prioritizing our efforts on those watersheds under the most stress and where water use is greatest. These watersheds are located in Australia, India, Pakistan, Spain and the United States.</p>
Water quality at a basin/catchment level	Relevant, always included	Our factories cannot operate without a continuous clean water supply both as an ingredient in our products and for use in processes that meet food safety standards. Incoming water quality risk assessments are managed at local level by site management teams to ensure food-safe water is available. Water quality risks are managed in the same way to ensure environmental protection and waste water discharge compliance is maintained.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	Water stewardship is essential for maintaining good stakeholder relationships and a licence to operate. The Mars Facility Water Stewardship Risk Assessment Questionnaire asks each facility whether it has been involved in water-related disputes with local stakeholders in the past year, so that we can ensure these are resolved and monitor the situation. The survey also identifies issues related to water quantity or quality that could affect the facility or its operations now or in the future. This includes potential stakeholder conflicts, and enables us to monitor any areas for concern.
Implications of water on your key commodities/raw materials	Relevant, always included	As a food business, water security is critical for maintaining supplies of quality agricultural raw materials. We have mapped total water use in our global supply chain and assessed whether that water comes from natural rainfall or irrigation using tools including WRI Aqueduct. Where we currently rely on irrigation, we've assessed whether the watersheds used for that water are experiencing stress, and we're prioritizing our efforts on those watersheds under the most stress and where water use is greatest. These watersheds are located in Australia, India, Pakistan, Spain and the United States.
Water-related regulatory frameworks	Relevant, always	Increases in water tariffs or regulation could seriously affect our operational costs. To monitor this, the Mars Facility Water Stewardship Risk Assessment Questionnaire asks whether there are any anticipated

	included	changes in water governance or regulation that might threaten the facility now or in the future. It also asks for the total cost in US\$ paid to the water supplier for the water the facility consumed during the year.
Status of ecosystems and habitats	Relevant, always included	We are currently assessing ecosystems at high-risk sites to ensure we mitigate any related physical or reputational risks. We have categorized our sites into three levels: low water risk (level 1), sites in water-scarce locations (level 2), and sites where water is a significant business risk (level 3). Over 20 level-3 sites will complete water stewardship reviews before 2020. Four reviews were completed at sites in the UK, China and California in 2016 and 2017. During 2018, further reviews took place at four sites in the UK, USA and Poland. Part of the scope is to understand all shared water risks in the catchment, including to ecosystems. The water reviews follow the International Water Stewardship Standards core guidelines. One Petcare site (Melton Mowbray, UK) is already in dialog with local stakeholders about reducing the level of the river that supplies the plant, to improve wildlife habitat.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	The provision of WASH services is an essential part of being a mutual employer and for attracting and retaining talent. WASH facilities are provided as part of our demanding internal framework of quality and food safety standards, which encompass the requirements of international standards, including ISO 9000 (quality), FSSC 22000 (food safety), the British Retail Consortium Global Standards, and the Hazard Analysis Critical Control Point food safety system. The Mars Responsible Workplace audit program assesses the provision of potable water and sanitation facilities.
Other contextual issues, please specify		

W3.3c

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

	Relevance & inclusion	Please explain
Customers	Relevant, always included	We consider customers in our water risk assessment processes for both our operations and supply chain because water stress could affect our ability to manufacture our products and maintain supplies. Customer ability to continue stocking our products is an implicit part of our assessment.

		<p>In addition, Mars participates in sustainability focused collaborative organizations with peers and customers, such as the Consumer Goods Forum and The Sustainability Consortium, as well as water-focused organizations such as the Alliance for Water Stewardship and UN CEO Water Mandate. We engage in Supplier Sustainability Engagement groups run by customers, such as the Coop's M2030, Asda Exchange and Tesco Supplier Network. We engage in these forums because they allow best practice to be shared and common approaches to be developed, ensuring our water risk assessment process meets current and future demands.</p>
Employees	Relevant, always included	<p>Considering Mars Associates as part of our risk assessment ensures we meet our responsibilities as a mutual employer, so that we are able to continue to attract and retain the best talent.</p> <p>WASH facilities are provided as part of our demanding internal framework of quality and food safety standards, which encompass the requirements of international standards, including ISO 9000 (quality), FSSC 22000 (food safety), the British Retail Consortium Global Standards, and the Hazard Analysis Critical Control Point food safety system. The Mars Responsible Workplace audit program includes assessment questions focusing on the provision of potable water and sanitation facilities.</p>
Investors	Relevant, always included	<p>The Mars family, our sole owner, is highly supportive of our water stewardship, as it contributes to the creation of mutual benefits for the business and all its stakeholders, in line with our Five Principles and our SiG Plan. Meeting their expectations is a key element of our risk assessments and business strategies.</p> <p>The Mars Facility Water Stewardship Risk Assessment Questionnaire assesses the cost of water consumption, wastewater treatment and any fines or penalties at site level. These costs have a direct impact on our profitability and therefore on returns to the Mars family. In addition, our water risk assessment processes for both our operations and our supply chain assess the potential for water to impact our business growth and future worth.</p>
Local communities	Relevant, always included	<p>Ensuring that adequate water supplies are available for all users within a catchment area is critical to maintaining our licence operate. The Mars Facility Water Stewardship Risk Assessment Questionnaire assesses how sites engage with key stakeholders and ensure that any significant water-related decisions take into account other basin actors. In addition, our supply chain risk assessments calculate how much of the water available in a catchment area is needed to grow our raw materials, and how much remains for other users including local</p>

		<p>communities. For example, as a leading member of the Sustainable Rice Platform (SRP), we are supporting 2,000 basmati rice farmers in Pakistan and India to improve productivity and reduce water use. In Pakistan, we have already seen a 32% increase in farmer income and a 30% reduction in water use since the project began, and we're working to expand these practices to rice farmers outside our supply chain to the benefit of the wider community. Mars is committed to ensuring that 100% of our Food segment rice farmers are working towards the standard by 2020, with 100% of our highest risk basmati rice farmers in India and Pakistan already having achieved this.</p>
NGOs	Relevant, always included	<p>NGOs have a role to play in informing our approach and influencing our reputation among wider stakeholders. We take their opinion and influence into account in our water risk assessments. The Mars Facility Water Stewardship Risk Assessment Questionnaire assesses how sites engage with key stakeholders and ensure that any significant water-related decisions take into account other basin actors. In addition, our supply chain risk assessments calculate how much of the water available in a catchment area is needed to grow our raw materials, and how much remains for other users. As a leading member of the Sustainable Rice Platform (SRP), with partners such as UN Environment, the International Rice Research Institute and WWF, we're supporting 2,000 basmati rice farmers in Pakistan and India to improve productivity and reduce water use. In Pakistan, we have already seen a 32% increase in farmer income and a 30% reduction in water use since the project began. Mars is committed to ensuring that 100% of our Food segment rice farmers are working towards the standard by 2020, with 100% of our highest risk basmati rice farmers in India and Pakistan already having achieved this.</p>
Other water users at a basin/catchment level	Relevant, always included	<p>Ensuring that adequate water supplies are available for all users within a catchment area is critical to maintaining our licence operate. The Mars Facility Water Stewardship Risk Assessment Questionnaire assesses how sites engage with key stakeholders and ensure that any significant water-related decisions take into account all other basin actors. An example of is our attendance at an open day run by the South West Rivers Trust in the UK, which focused on farm-based water stewardship in the Tamar river catchment, where we have a factory.</p>
Regulators	Relevant, always included	<p>We include regulators in our water risk assessments because our ability to operate our factories relies on regulatory compliance. The Mars Facility Water Stewardship Risk Assessment Questionnaire assesses how sites engage with local water suppliers and how they ascertain the location and source of their water. It also assesses how sites engage with key stakeholders and ensure that any significant water-related decisions take into account other basin actors, including regulators.</p>

River basin management authorities	Relevant, always included	We include river basin management authorities in our water risk assessments because our ability to operate our factories relies on good management of secure water supplies. The Mars Facility Water Stewardship Risk Assessment Questionnaire assesses how sites engage with local water suppliers and how they ascertain the location and source of their water. It also assesses how sites engage with key stakeholders and ensure that any significant water-related decisions take into account other basin actors, including local authorities. For example, Mars engaged with UK regulators the Environment Agency and South West Water at an open day run by the South West Rivers Trust, which focused on farm-based water stewardship in the Tamar river catchment, where we have a factory. In our supply chain, we have worked with government agencies in Spain to assess the climate resilience and adaptive capacity of rice farming communities.
Statutory special interest groups at a local level	Relevant, always included	Special interest groups have a role to play in informing our approach and influencing our reputation among local stakeholders. We take their opinion and influence into account in our water risk assessments. The Mars Facility Water Stewardship Risk Assessment Questionnaire assesses how sites engage with key stakeholders and ensure that any significant water-related decisions take into account other basin actors, including local special interest groups.
Suppliers	Relevant, always included	It is critical that suppliers of our agricultural raw materials have access to sufficient and sustainable water supplies to grow the crops we rely on. We have mapped total water use in our global supply chain and assessed whether that water comes from natural rainfall or irrigation. Where we currently rely on irrigation, we've assessed whether the watersheds used for that water are experiencing stress, and we're prioritizing our efforts on those watersheds under the most stress and where our agricultural water use is highest. These watersheds are located in Australia, India, Pakistan, Spain and the United States. We have incorporated this information into Mars Strategic Sourcing Methodology, and our buyers are now working with suppliers and farmers to further understand water risks in these priority watersheds, and to build appropriate actions into our sourcing strategies for raw materials sourced there. For example, we are working with rice suppliers and farmers in Pakistan to improve water stewardship in basmati rice farming, and with tomatoes growers in Australia, Greece, Spain and the USA to understand their water footprint compared with regional benchmarks.
Water utilities at a local level	Relevant, always included	Water utilities are key stakeholders in ensuring secure and sustainable supplies of clean water to our individual factories. The Mars Facility Water Stewardship Risk Assessment Questionnaire assesses how sites engage with local water suppliers and how they ascertain the location and source of their water.

Other stakeholder, please specify		
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W3.3d

(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.

We assess water risks at our direct operations using the World Resources Institute (WRI) Aqueduct tool for measuring and managing water risk. This identifies sites at a high or extreme risk of water stress. In addition, all sites complete The Mars Facility Water Stewardship Risk Assessment Questionnaire developed in partnership with WRI, which includes increased water accounting plus assessment of current and future implications, and the site's response. We use the results of these assessments to identify the sites where we need to prioritize action and to inform our local strategies for reducing water stress.

We mapped the total water use across our global supply chains and assessed whether that water comes from natural rainfall or irrigation. We estimated the fresh water from rivers, lakes and aquifers (blue water) used in irrigation to grow our raw materials using existing data from initiatives including the World Food Lifecycle Database (lifecycle assessment). Where we currently rely on irrigation, we worked with WRI to assess whether the watersheds used for that water are experiencing stress, and we are using the results to prioritize strategies for those watersheds under the most stress and where our agricultural water use is greatest. These watersheds are located in Australia, India, Pakistan, Spain and the United States.

As one example of how we are adjusting our sourcing strategies based on these assessments, for tomatoes we are developing regional blue water footprint benchmarks for Australia, Greece, Spain and the USA. This helps us understand supplier and farmer performance against a regional benchmark, so we can recommend how to close the gap to sustainable water use levels for their region and use the results to inform our sourcing strategy.

W4. Risks and opportunities

W4.1

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

Yes, both in direct operations and the rest of our value chain

W4.1a

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

The Mars Facility Water Stewardship Risk Assessment Process considers sites against three separate criteria to assess the level of water-related risks and assess whether these are substantive in business terms.

1. Sites experiencing the greatest water-related risks and issues are identified based on data obtained in our annual Mars Facility Water Risk Assessment Questionnaire (formerly known as the Mars watershed governance survey) which forms part of a wider sustainability data gathering exercise in support of our SiG Plan.
2. Sites in locations of high (>40%) baseline water stress as per the WRI Aqueduct tool.
3. Sites producing more than 2% of their business segment's global production volume. Our Food business is an exception where we set the level at 5%, as it has a much smaller number of sites. The proportion of production volume is an indicator of potential business impact in the event of water issues affecting a factory's ability to operate. Most of our products can be manufactured at multiple sites, reducing business continuity risks in the event of a water-related impact production at one facility. Where this is not the case and a site produces unique products, we may rate the business risk as substantive even if the production volume threshold is not met.

Sites identified as having the highest water-related risks are defined as "High Priority" sites within our Water Stewardship program and are the subject of Water Stewardship Reviews based on the Alliance for Water Stewardship's International Standard. The reviews aim to ensure we build on the information from our Facility Risk Assessments and WRI stress data to build a detailed understanding of local water risks and opportunities.

Over 20 level-3 sites will complete water stewardship reviews before 2020. Four reviews were completed at sites in the UK, China and California in 2016 and 2017. During 2018, further reviews took place at four sites in the UK, USA and Poland.

In our supply chain, as part of the accounting process for developing our Sustainable in a Generation Plan, we overlaid our raw material origins and volumes with watershed stress maps in a Geographic Information System, to cross-reference water-intensive crops with areas of water stress. This allowed us to identify priority watersheds that represent substantive supply risks. We have used the results to develop a type of science-based target for reducing our most material water impacts in stressed watersheds. More information on this approach is available at www.wri.org/blog/2016/04/companies-could-profit-setting-water-targets-informed-science and our water position statement on Mars.com (<https://www.mars.com/global/about-us/policies-and-practices/water-stewardship-position-statement>).

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	2	1-25	Two sites, both within our Food business, were identified as exposed to potential substantive risks based on the criteria described in W4.1.

W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive impact on your business, and what is the potential business impact associated with those facilities?

Country/Region

South Africa

River basin

Other, please specify

Western Cape Water Supply System



Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

% company's total global revenue that could be affected

Less than 1%

Comment

Our Mars Food site in Cape Town, South Africa, fell below our threshold of 5% of segment production in 2017. However, the site makes a unique blend of products which could not easily be replicated by other sites. Cape Town was on the verge of a water crisis in 2017 and early 2018, placing this operation at substantive risk.

Country/Region

United Kingdom of Great Britain and Northern Ireland

River basin

Other, please specify

Great Ouse

Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

% company's total global revenue that could be affected

Less than 1%

Comment

Our Food segment site in the United Kingdom meets all the criteria outlined above, and a water stewardship review based on the AWS International standard has confirmed stress in the watershed.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Region

South Africa

River basin

Other, please specify

Western Cape Water Supply System

Type of risk

Physical

Primary risk driver

Drought

Primary potential impact

Increased capital costs

Company-specific description

Our Cape Town site was heavily impacted by the Cape Town drought in 2017 and was forced to respond in order to secure a reliable water supply and ensure production continuity. Additionally, known water quantity and stress issues in the catchment are expected to impact the water supply system and the Mars factory in the future. The site anticipates changes in pricing, discharge or quality standards in the short term.

Timeframe

Current up to 1 year

Magnitude of potential impact

High

Likelihood

Virtually certain

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

In response to the Cape Town drought, the site has made a \$350,000 (4.5 million rand) investment in a ground water supply, treatment and storage system, to enable a transition to ground water use in preference to the municipal supply.

Primary response to risk

Increased capital expenditure

Description of response

The site has made a significant capital investment in additional physical infrastructure to ensure it can continue to operate if the municipal water supply is interrupted.

A water stewardship review of the site based on the AWS International Standard is planned, and our South African business has begun to

explore increased participation in the Local CEO Water Mandate Action hub, potentially allowing for future collaboration on water stewardship with other businesses in the country.

Cost of response

350,000

Explanation of cost of response

In response to the Cape Town drought the site has made a \$350k (4.5 million rand) investment in a ground water supply, treatment and storage system to enable a site to transition ground water use in preference to the municipal supply.

Country/Region

United Kingdom of Great Britain and Northern Ireland

River basin

Other, please specify
Great Ouse

Type of risk

Regulatory

Primary risk driver

Regulation of discharge quality/volumes

Primary potential impact

Increased capital costs

Company-specific description

The site is in a water-stressed area where demand for water is growing driven by an increasing population, economic development and agricultural irrigation. In addition, potential regulatory changes could be put in place to manage increasing demand and reduced supply. The site has been focused on increasing its water efficiency and has installed a system to recycle process water, this has diverted water from the effluent stream which has led to increased pollutant concentration in the site effluent. This has led to some issues for the site in terms of

meeting its effluent discharge consent, which poses both operational and financial risks. These risks are being addressed by capital investment in waste water facilities.

The site is also in an area which experiences infrequent flooding which can impact vehicle movements to and from the site.

The site has an annual water allocation, and potentially expects changes in water rights, permits or allocation.

Timeframe

Current up to 1 year

Magnitude of potential impact

High

Likelihood

Virtually certain

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

The site has allocated \$2.6m (£2.0m) of its capital investment budget to new wastewater handling and treatment equipment to ensure its wastewater meets its discharge consent in all circumstances. This equipment is planned to be operational during the next 12 months.

Primary response to risk

Increased capital expenditure

Description of response

The site is spending \$2.6m (£2.0m) on new wastewater handling and treatment equipment to ensure its wastewater meets its discharge consent in all circumstances. This equipment is planned to be operational during the next 12 months.

The site has conducted a water stewardship review based on the AWS International Standard. Following that review, the site has focused on improved plant operation, water efficiency and recycling and well as waste water treatment.

Cost of response

2,600,000

Explanation of cost of response

The site has allocated \$2.6m (£2.0m) of its capital investment budget to new wastewater handling and treatment equipment to ensure its wastewater meets its discharge consent in all circumstances. This equipment is planned to be operational during the next 12 months.

W4.2a

(W4.2a) Provide details of risks identified within your value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Region

Spain

River basin

Guadalquivir

Stage of value chain

Supply chain

Type of risk

Physical

Primary risk driver

Increased water stress

Primary potential impact

Increased production costs due to changing input prices from supplier

Company-specific description

We have mapped the total water use across our global supply chains and assessed whether that water comes from natural rainfall or irrigation. Where our direct and indirect suppliers rely on irrigation, we've assessed whether the watersheds involved are experiencing stress. As a result, we are prioritizing our efforts on crops which we or our suppliers source at large volumes from watersheds where water is especially scarce and water use is high, such as parts of Australia, India, Pakistan, Spain and the United States. As we work toward our ultimate goal, our interim target is to cut unsustainable water use by half by 2025, in close collaboration with our suppliers and others across our extended value chain.

Water stress in the Guadalquivir river basin in Spain poses a specific risk to our rice supply chain and represents the basin with the largest gap to sustainable water withdrawals in the Mars value chain.

Timeframe

>6 years

Magnitude of potential financial impact

Medium-high

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

4,000,000

Potential financial impact figure - maximum (currency)

12,000,000

Explanation of financial impact

While we regard the risk of water stress impacting our rice supply in Spain as unlikely because of the mitigation approaches we are taking, we believe we face significant potential costs from increased water stress if our mitigation proves unsuccessful. These costs would be between \$4,000,000 and \$12,000,000.

Primary response to risk

Promote the adoption of sustainable irrigation practices among suppliers

Description of response

We are assisting with farmer training and technology that helps advance more sustainable water use for the rice we source. Mars has partnered with around 30 other organizations from a range of sectors to develop the Sustainable Rice Platform (SRP), a best-practice standard for rice cultivation that has shown the potential to reduce water use and increase yield and farmer income. We have committed to ensuring that all the rice farmers in food supply chain are working towards this standard by 2020.

To support deployment of the SRP standard, we have created new sustainable sourcing roles in our operating businesses to help our procurement teams work toward our SiG Plan targets and develop strategies to source our raw materials in ways that reduce our environmental and societal impacts. In recognition of the pivotal role our procurement teams play in addressing impacts like water stress, we have merged the role of Chief Sustainability Officer and Chief Procurement Officer.

Where we can't reduce water use to sustainable levels, we may engage in activities, such as landscape restoration, to recharge water levels to the point necessary to meet our targets. If interventions can't help relieve stress on a watershed where we source, we are prepared to change where we source from to protect that watershed.

Cost of response

150,000

Explanation of cost of response

We estimate that the annual cost of deploying SRP, and the organizational costs of sustainable sourcing roles that support water aspects of our Sustainable in a Generation Plan in this basin, to be \$150,000.

Country/Region

India

River basin

Ganges - Brahmaputra

Stage of value chain

Supply chain

Type of risk

Physical

Primary risk driver

Increased water stress

Primary potential impact

Increased production costs due to changing input prices from supplier

Company-specific description

We have mapped the total water use across our global supply chains and assessed whether that water comes from natural rainfall or irrigation. Where our direct and indirect suppliers rely on irrigation, we've assessed whether the watersheds involved are experiencing stress. As a result, we are prioritizing our efforts on crops which we or our suppliers source at large volumes from watersheds where water is especially scarce and water use is high, such as parts of Australia, India, Pakistan, Spain and the United States. As we work toward our ultimate goal, our interim target is to cut unsustainable water use by half by 2025, in close collaboration with our suppliers and others across our extended value chain.

The Ganges basin in India is an important source of Basmati rice, but unfortunately water stress is a supply risk.

Timeframe

>6 years

Magnitude of potential financial impact

Medium-high

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

7,500,000

Potential financial impact figure - maximum (currency)

22,500,000

Explanation of financial impact

While we regard the risk of water stress impacting our rice supply in India as unlikely because of the mitigation approaches we are taking, we believe we face significant potential costs from increased water stress if our mitigation work proves unsuccessful. These costs could lie in the \$7,500,000 to \$22,500,000 range.

Primary response to risk

Promote the adoption of sustainable irrigation practices among suppliers

Description of response



We are supporting farmer training and technology that helps advance more sustainable water use for the rice we source. This involved Mars partnering with around 30 other organizations from a range of sectors to develop the Sustainable Rice Platform (SRP), a best-practice standard for rice cultivation that has shown has the potential to reduce water use and increase yield and farmer income. We have committed to ensuring that all the rice farmers in food supply chain are working towards this standard by 2020 and this has already been achieved for our basmati farmers in India and Pakistan.

To support deployment of the SRP standard we have created new sustainable sourcing roles in our operating businesses to help our procurement teams work toward our SiG Plan targets and develop strategies to source our raw materials in ways that reduce our environmental and societal impacts. In recognition of the pivotal role our procurement teams play in addressing impacts like water stress, we have merged the role of Chief Sustainability Officer and Chief Procurement Officer.

Where we can't reduce water use to sustainable levels, we may engage in activities, to recharge water levels to the point necessary to meet our targets. If interventions can't help relieve stress on a watershed we are prepared to change where we source from to protect that watershed.

Cost of response

1,000,000

Explanation of cost of response

We estimate that the annual cost of deploying SRP, and the organizational costs of sustainable sourcing roles that support water aspects of our Sustainable in a Generation Plan in this basin, to be approximately \$1,000,000.

Country/Region

Pakistan

River basin

Indus

Stage of value chain

Supply chain

Type of risk

Physical

Primary risk driver

Increased water stress

Primary potential impact

Increased production costs due to changing input prices from supplier

Company-specific description

We have mapped the total water use across our global supply chains and assessed whether that water comes from natural rainfall or irrigation. Where our direct and indirect suppliers rely on irrigation, we've assessed whether the watersheds involved are experiencing stress. As a result, we are prioritizing our efforts on crops which we or our suppliers source at large volumes from watersheds where water is especially scarce and water use is high, such as parts of Australia, India, Pakistan, Spain and the United States. As we work toward our ultimate goal, our interim target is to cut unsustainable water use by half by 2025, in close collaboration with our suppliers and others across our extended value chain.

The Indus basin in Pakistan an important source of Basmati rice, however water stress is a supply risk in this basin.

Timeframe

>6 years

Magnitude of potential financial impact

Medium-high

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

7,500,000

Potential financial impact figure - maximum (currency)

22,500,000

Explanation of financial impact

While we regard the risk of water stress impacting our rice supply in Pakistan as unlikely because of the mitigation approaches we are taking, we believe we face significant potential costs from increased water stress if our mitigation work proves unsuccessful. We estimate that these costs lie in the \$7,500,000 to \$22,500,000 range.

Primary response to risk

Promote the adoption of sustainable irrigation practices among suppliers

Description of response

We are supporting farmer training and technology that helps advance more sustainable water use for the rice we source. This involved Mars partnering with around 30 other organizations from a range of sectors to develop the Sustainable Rice Platform (SRP), a best-practice standard for rice cultivation that has shown has the potential to reduce water use and increase yield and farmer income. We have committed to ensuring that all the rice farmers in food supply chain are working towards this standard by 2020 and this has already been achieved for our basmati farmers in India and Pakistan.

To support deployment of the SRP standard we have created new sustainable sourcing roles in our operating businesses to help our procurement teams work toward our SiG Plan targets and develop strategies to source our raw materials in ways that reduce our environmental and societal impacts. In recognition of the pivotal role our procurement teams play in addressing impacts like water stress, we have merged the role of Chief Sustainability Officer and Chief Procurement Officer.

Where we can't reduce water use to sustainable levels, we may engage in activities, to recharge water levels to the point necessary to meet our targets. If interventions can't help relieve stress on a watershed we are prepared to change where we source from to protect that watershed.

Cost of response

1,000,000

Explanation of cost of response

We estimate that the annual cost of deploying SRP, and the organizational costs of sustainable sourcing roles that support water aspects of our Sustainable in a Generation Plan in this basin, to be approximately \$1,000,000.

Country/Region

Australia

River basin

Murray - Darling

Stage of value chain

Supply chain

Type of risk

Physical

Primary risk driver

Increased water stress

Primary potential impact

Supply chain disruption

Company-specific description

We have mapped the total water use across our global supply chains and assessed whether that water comes from natural rainfall or irrigation. Where our direct and indirect suppliers rely on irrigation, we've assessed whether the watersheds involved are experiencing stress. As a result, we are prioritizing our efforts on crops which we or our suppliers source at large volumes from watersheds where water is especially scarce and water use is high, such as parts of Australia, India, Pakistan, Spain and the United States. As we work toward our ultimate goal, our interim target is to cut unsustainable water use by half by 2025, in close collaboration with our suppliers and others across our extended value chain.

Mars sources broken rice and whole corn from the Murray basin for our pet care business, and we believe water stress to be a supply risk in this basin.

Timeframe

>6 years

Magnitude of potential financial impact

Unknown

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

We are only just starting to work on the water impacts of broken rice and expect to better understand the risks in the near future. Corn is a very small share of our impacts in this basin that we will tackle in the longer term, once we have an action plan for broken rice.

Primary response to risk

Map supplier water risk

Description of response



We are beginning to understand the impacts of broken rice used by our Petcare business, starting with the nature of the broken rice supply chains we use. We have created sustainable sourcing and leadership roles to partner with procurement teams in our Petcare business, and one member of this team has started to focus on the impacts of broken rice.

Cost of response

0

Explanation of cost of response

Our response on broken rice is at an early stage. These costs represent an appropriate proportion of the organizational costs for those working on the topic.

Country/Region

United States of America

River basin

Mississippi River

Stage of value chain

Supply chain

Type of risk

Physical

Primary risk driver

Increased water stress

Primary potential impact

Supply chain disruption

Company-specific description

We have mapped the total water use across our global supply chains and assessed whether that water comes from natural rainfall or irrigation. Where our direct and indirect suppliers rely on irrigation, we've assessed whether the watersheds involved are experiencing stress. As a result, we are prioritizing our efforts on crops which we or our suppliers source at large volumes from watersheds where water is especially scarce and water use is high, such as parts of Australia, India, Pakistan, Spain and the United States. As we work toward our ultimate goal, our interim target is to cut unsustainable water use by half by 2025, in close collaboration with our suppliers and others across our extended value chain.

The Mississippi basin in the USA is an important source of irrigated corn, wheat, rice (brown and broken) and sugar beet. Of these materials, only brown rice - which represents 10% of our gap to sustainable water use - had a program to tackle water use up and running in 2017.

Timeframe

>6 years

Magnitude of potential financial impact

Medium

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

2,500,000

Potential financial impact figure - maximum (currency)

7,500,000

Explanation of financial impact

Currently we have only estimated the potential financial impact for the rice we source from the Mississippi basin. While we regard the risk of water stress impacting this rice supply in the USA as unlikely because of the mitigation approaches we are taking, we believe that we face significant potential costs from increased water stress if our mitigation work proves unsuccessful. These costs could lie in the \$2,500,000 to \$7,500,000 range.

Primary response to risk

Promote the adoption of sustainable irrigation practices among suppliers

Description of response

We are supporting farmer training and technology that helps advance more sustainable water use for the rice we source. This involved Mars partnering with around 30 other organizations from a range of sectors to develop the Sustainable Rice Platform (SRP), a best-practice standard for rice cultivation that has shown has the potential to reduce water use and increase yield and farmer income. We have committed to ensuring that all the rice farmers in food supply chain are working towards this standard by 2020.

To support SRP deployment, we have created new sustainable sourcing roles in our operating businesses to assist our procurement teams work toward our SiG Plan targets and develop strategies to source our raw materials in ways that reduce our environmental and societal impacts. In recognition of the pivotal role our procurement teams play in addressing impacts like water stress, we have merged the role of Chief Sustainability Officer and Chief Procurement Officer.

Where we can't reduce water use to sustainable levels, we may engage in activities, to recharge water levels to the point necessary to meet our targets. If interventions can't help relieve stress on a watershed we are prepared to change where we source from to protect that watershed.

Cost of response

195,000

Explanation of cost of response

We have allocated the annual costs associated with deploying the SRP standard, and the organizational costs of our sustainable sourcing roles to support water aspects of our Sustainable in a Generation Plan, in proportion to the amount of unsustainable water use in this catchment. On this basis, total response costs for this catchment are estimated in the range of \$65,000 to \$195,000.

W4.3

(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

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

Type of opportunity

Efficiency

Primary water-related opportunity

Cost savings

Company-specific description & strategy to realize opportunity

Our factories rely on water as an ingredient and for our manufacturing processes, so reducing the costs and risks associated with secure water supplies is a business opportunity. In water-scarce areas, we can also maintain good relationships with local communities by ensuring our usage does not impact on their needs. We call our strategy for realizing these opportunities our Sustainable in a Generation (SiG) Plan. Based on the best-available scientific data, SiG aims to decouple the environmental impacts of our business, including water impacts, from business growth. Within our direct operations, we're focused on using water efficiently, promoting water reuse and recycling, and preventing pollution through responsible waste water management. Our focus is on locations where water is scarce and the associated risks and opportunities are greatest. Our target for our factories is to improve water efficiency in water-scarce areas by 15% by 2020 from a 2015 baseline. As of 2018 year-end, our stressed sites had improved water efficiency by 8.2% versus our 2015 baseline.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

Reducing our water usage and maintaining high quality water discharges will reduce usage costs and potential regulatory and compliance costs. \$1,000,000 represents the potential annual global operational savings from delivering our site water strategy in reduced water and water treatment costs.

Type of opportunity

Resilience

Primary water-related opportunity

Increased supply chain resilience

Company-specific description & strategy to realize opportunity

Our value chain water goal is to ensure water use in our value chain is within annually renewable levels by watershed - which we see as an effective way to mitigate the impacts of water stress on our supply chain especially risks resulting from sourcing agricultural commodities. Over

98% of the water used in our value chain is for growing crops. Our impact assessments have identified a number of water-intensive agricultural raw materials grown in areas of high baseline water stress, whose supply chains can be strengthened through better water management. In one example, we are working with basmati rice farmers in Pakistan to introduce alternate wetting and drying, an irrigation technique that reduces water and GHG emissions and improves yields, and is considered ground-breaking water management practice in the rice industry. We're also taking part in a project led by the Swiss development organization, Helvetas, which aims to improve water efficiency and productivity for rice growers in Asia. In Pakistan, pilots have shown a 32% increase in farmer income and a 30% reduction in water use since the project began, and we're working to expand these practices to rice farmers outside our supply chain. Mars Food is a member of the Sustainable Rice Platform (SRP), an industry collaboration that has developed a global rice sustainability standard.

We have also conducted a study to investigate the impact of climate change on water stressed rice supply chain in Spain.

Estimated timeframe for realization

>6 years

Magnitude of potential financial impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

60,000,000

Potential financial impact figure – maximum (currency)

180,000,000

Explanation of financial impact

Only 2% of the total green and blue water needed in our extended value chain is what we regard as "usage in excess of sustainable levels". We believe this usage represents a long-term resilience risk to our business through increased water stress, and that significant work is required via

the deployment of our Sustainable in a Generation Plan to mitigate this risk over the coming years.

If we do not mitigate these risks throughout our value chain, we estimate potential increased material costs of \$60,000,000 to \$180,000,000 per year, caused by a combination of increased production costs, reduced supply to meet demand pushing up prices, and/or the cost of switching to alternative sources elsewhere.

Type of opportunity

Other

Primary water-related opportunity

Other, please specify

Increased scientific understanding

Company-specific description & strategy to realize opportunity

Mars helps increase scientific understanding of water impacts and stewardship by contributing to initiatives such as the multi-agency collaborative work on context-based water targets. Mars is also a premium partner of the World Food Life Cycle database project part 2. This project is developing a water impact factor methodology for key agricultural commodities, in partnership with other global businesses. Mars also support the AWS, UN CEO water mandate, WRI and others to develop science and water stewardship.

Estimated timeframe for realization

>6 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

We see increased scientific understanding of water stress and the development of practical tools, standards and methodologies to support organisations to become better water stewards as being an essential to our approach to mitigating the water stress related risks that we face as a business. So we have assessed the financial benefit of our engagement in advancing science and methodologies to quantify our environmental impacts in similar terms to our water related supply chain resilience risks.

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, total water accounting data and comparisons with the previous reporting year.

Facility reference number

Facility 1

Facility name (optional)

Cape Town Mars Food site

Country/Region

South Africa

River basin

Other, please specify
Western Cape Water Supply System

Latitude

-33.87152

Longitude

52.742303

Total water withdrawals at this facility (megaliters/year)

6.55

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

6.55

Comparison of discharges with previous reporting year

This is our first year of measurement

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

About the same

Please explain

The Cape Town site has increased absolute water usage by 32% last year in line with an increase in production, and water intensity (per tonne of product) remained about flat.

Facility reference number

Facility 2

Facility name (optional)

King's Lynn Mars Food site

Country/Region

United Kingdom of Great Britain and Northern Ireland

River basin

Other, please specify

Great Ouse

Latitude

52.742303

Longitude

0.410887

Total water withdrawals at this facility (megaliters/year)

192.4

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

127.29

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

65.11

Comparison of consumption with previous reporting year

Much higher

Please explain

The King's Lynn site increased absolute water usage by 5% last year, while water intensity (per tonne of product produced) fell by about 9%.

W5.1a

(W5.1a) For each facility referenced in W5.1, provide withdrawal data by water source.

Facility reference number

Facility 1

Facility name

Cape Town Mars Food site

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

6.55

Comment

100% of this site's water is sourced from the municipal water system.

Facility reference number

Facility 2

Facility name

King's Lynn Mars Food site

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

192.4

Comment

100% of this site's water is sourced from the municipal water system.

W5.1b

(W5.1b) For each facility referenced in W5.1, provide discharge data by destination.

Facility reference number

Facility 1

Facility name

Cape Town Mars Food site

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

6.55

Comment

100% of this site's discharges are made to the municipal wastewater treatment system.

Facility reference number

Facility 2

Facility name

King's Lynn Mars Food site

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

127.29

Comment

100% of this site's discharges are made to the municipal wastewater treatment system.

W5.1c

(W5.1c) For each facility referenced in W5.1, provide the proportion of your total water use that is recycled or reused, and give the comparison with the previous reporting year.

Facility reference number

Facility 1

Facility name

Cape Town Mars Food site

% recycled or reused

None



Comparison with previous reporting year

About the same

Please explain

This site does not currently report reusing or recycling any water, although this is still a new metric for Mars and we expect more sites to report on it in future.

Facility reference number

Facility 2

Facility name

King's Lynn Mars Food site

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

This site does not currently report reusing or recycling any water, although this is still a new metric for Mars and we expect more sites to report on it in future.

W5.1d

(W5.1d) For the facilities referenced in W5.1, what proportion of water accounting data has been externally verified?

Water withdrawals – total volumes

% verified

Not verified

What standard and methodology was used?

We use an external auditor to verify our water accounting at a sample of our facilities each year. However, in 2018 this process reviewed total water use and discharges only. We are integrating our verification processes across site security, responsible workplace, asset conservation, HSE and sustainability. This will allow more comprehensive verification of data from all sites, every two years.

Water withdrawals – volume by source

% verified

Not verified

What standard and methodology was used?

We use an external auditor to verify our water accounting at a sample of our facilities each year. However, in 2018 this process reviewed total water use and discharges only. We are integrating our verification processes across site security, responsible workplace, asset conservation, HSE and sustainability. This will allow more comprehensive verification of data from all sites, every two years.

Water withdrawals – quality

% verified

Not verified

What standard and methodology was used?

We use an external auditor to verify our water accounting at a sample of our facilities each year. However, in 2018 this process reviewed total water use and discharges only. We are integrating our verification processes across site security, responsible workplace, asset conservation, HSE and sustainability. This will allow more comprehensive verification of data from all sites, every two years.

Water discharges – total volumes

% verified

1-25

What standard and methodology was used?

We use an external auditor to verify our water accounting at a sample of our facilities each year. In 2018, LRQA verified water data from 20% of our sites using LRQA's Report Verification procedure. The process included interviews with relevant Mars associates, an evaluation of our data assumptions, calculation methods and data checking processes, and a review of the data in our central database.

The Kings Lynn site was included in this sample, but the Cape Town factory was not. We are integrating our verification processes across site security, responsible workplace, asset conservation, HSE and sustainability. This will allow more comprehensive verification of data from all sites, every two years.

Water discharges – volume by destination

% verified

Not verified

What standard and methodology was used?

We use an external auditor to verify our water accounting at a sample of our facilities each year. However, in 2018 this process reviewed total water use and discharges only. We are integrating our verification processes across site security, responsible workplace, asset conservation, HSE and sustainability. This will allow more comprehensive verification of data from all sites, every two years.

Water discharges – volume by treatment method

% verified

Not verified

What standard and methodology was used?

We use an external auditor to verify our water accounting at a sample of our facilities each year. However, in 2018 this process reviewed total water use and discharges only. We are integrating our verification processes across site security, responsible workplace, asset conservation, HSE and sustainability. This will allow more comprehensive verification of data from all sites, every two years.

Water discharge quality – quality by standard effluent parameters

% verified

Not verified

What standard and methodology was used?

We use an external auditor to verify our water accounting at a sample of our facilities each year. However, in 2018 this process reviewed total water use and discharges only. We are integrating our verification processes across site security, responsible workplace, asset conservation, HSE and sustainability. This will allow more comprehensive verification of data from all sites, every two years.

Water discharge quality – temperature

% verified

Not verified

What standard and methodology was used?

We use an external auditor to verify our water accounting at a sample of our facilities each year. However, in 2018 this process reviewed total water use and discharges only. We are integrating our verification processes across site security, responsible workplace, asset conservation, HSE and sustainability. This will allow more comprehensive verification of data from all sites, every two years.

Water consumption – total volume

% verified

1-25

What standard and methodology was used?

We use an external auditor to verify our water accounting at a sample of our facilities each year. In 2018, LRQA verified water data from 20% of our sites using LRQA's Report Verification procedure. The process included interviews with relevant Mars associates, an evaluation of our data assumptions, calculation methods and data checking processes, and a review of the data in our central database.

The Kings Lynn site was included in this sample, but the Cape Town factory was not. We are integrating our verification processes across site security, responsible workplace, asset conservation, HSE and sustainability. This will allow more comprehensive verification of data from all sites, every two years.

Water recycled/reused

% verified

Not verified

What standard and methodology was used?

We use an external auditor to verify our water accounting at a sample of our facilities each year. However, in 2018 this process reviewed total water use and discharges only. We are integrating our verification processes across site security, responsible workplace, asset conservation, HSE and sustainability. This will allow more comprehensive verification of data from all sites, every two years.

W6. Governance

W6.1

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

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

W6.1a

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

	Scope	Content	Please explain
Row 1	Company-wide	<p>Description of business dependency on water</p> <p>Description of business impact on water</p> <p>Description of water-related performance standards for direct operations</p> <p>Description of water-related standards for procurement</p> <p>Reference to international standards and widely-recognized water initiatives</p> <p>Company water targets and goals</p> <p>Commitment to align with public policy initiatives, such as the SDGs</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to water-related innovation</p> <p>Commitment to stakeholder awareness and education</p>	<p>Our public Water Stewardship Position Statement sets out our current situation with regards to water impacts, our long-term ambition ensure water use in our value chain is within annually renewable levels by watershed, our theory of change and short-term action plan for achieving this ambition, and our planned next steps. The position statement also includes an explanation of how we determined our context-based water goal, and examples of the strategies we are employing in our operations and our supply chain.</p> <p>Internally, our position statement is supported by standards for the management of waste water and water quality at our manufacturing sites. Water impact assessment forms part of the Mars Strategic Sourcing Methodology, a process that supports our buyers globally to develop effective and sustainable sourcing strategies for our raw materials.</p>

	Commitment to water stewardship and/or collective action Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	
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W6.2

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

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Chief Executive Officer (CEO)	Our water stewardship strategy, targets and performance are core elements of the Mars Sustainable in a Generation (SiG) Plan: our plan for growing in ways that are good for people, good for the planet and good for our business. The plan was approved by the Board in 2017. Performance against our context-based, value-chain wide water target and operational water use reduction targets are tracked by the Mars Leadership Team within our quarterly corporate scorecard. The Leadership Team, chaired by the CEO, is accountable to the Board for delivering all targets within the scorecard. The Leadership Team delegates responsibility for our water strategy to the Sustainability Steering Group (SSG), which meets quarterly, is chaired by the CSO and comprises senior managers representing each main business segment (Mars Petcare, Mars Wrigley and Mars Food) and each main business function (Procurement, Manufacturing, and Public Affairs).

W6.2b

(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
Row 1	Scheduled - some meetings	<p>Monitoring implementation and performance</p> <p>Overseeing acquisitions and divestiture</p> <p>Overseeing major capital expenditures</p> <p>Providing employee incentives</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding strategy</p> <p>Reviewing and guiding corporate responsibility strategy</p>	<p>Our water stewardship strategy, targets and performance are core elements of the Mars Sustainable in a Generation (SiG) Plan: our plan for growing in ways that are good for people, good for the planet and good for our business. Performance against the context-based, value-chain wide sustainable water use target and operational water reduction targets within the SiG Plan are tracked as a matter of course by the CEO and the Mars Leadership Team as part of our quarterly corporate scorecard. The Leadership Team, chaired by the CEO, are accountable to the Board for delivering all targets within the scorecard. The Leadership Team reviews and guides our strategy, plans, policies, and budgets as necessary to ensure we remain on track, with oversight from the Board.</p>

		Reviewing innovation/R&D priorities Setting performance objectives	
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W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Chief Executive Officer (CEO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

Our water stewardship strategy, targets and performance are core elements of the Mars Sustainable in a Generation (SiG) Plan: our plan for growing in ways that are good for people, good for the planet and good for our business. Performance against the context-based, value-chain wide sustainable water use target and operational water reduction targets within the SiG Plan are tracked as a matter of course by the Mars Leadership Team, led by the CEO, as part of our quarterly corporate scorecard. The CEO sits on the Board and is responsible for delivering all targets within the scorecard. In addition to this quarterly reporting, the Chief Procurement and Sustainability Officer presents our progress against our SiG Plan goals including for water stewardship to the Board at least annually.

Name of the position(s) and/or committee(s)

Sustainability committee

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

The Leadership Team delegates responsibility for our Water Stewardship Strategy to the Sustainability Steering Group (SSG), which meets quarterly, is chaired by the CSO and comprises senior managers representing each main business segment (Mars Petcare, Mars Wrigley and Mars Food) and each main business function (Procurement, Manufacturing and Public Affairs). The SSG is the center of our sustainability thought leadership and is where priorities, principles, policies, positions are developed, often in collaboration with external stakeholders and experts. The SSG ensures the Leadership Team is fully briefed on potential courses of action and strategic issues, and that the implications of strategies, targets and potential courses of action are investigated and understood.

Name of the position(s) and/or committee(s)

Business unit manager

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

The targets in our Corporate Scorecard and SiG Plan are cascaded by the Mars Leadership Team to the leadership teams of each business segment for implementation. The Segment General Managers (Business unit Managers above) for our main Mars Petcare, Mars Wrigley, and Mars Food segments are accountable for deploying related strategies within their businesses and for reporting their segment's performance via

our corporate reporting system. Segment Sustainability teams liaise with Segment Leadership Teams and Regional Leadership Teams to develop detailed strategies for deliver the required impact improvements.

W-FB6.4/W-CH6.4/W-EU6.4/W-OG6.4/W-MM6.4

(W-FB6.4/W-CH6.4/W-EU6.4/W-OG6.4/W-MM6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

Yes

W-FB6.4a/W-CH6.4a/W-EU6.4a/W-OG6.4a/W-MM6.4a

(W-FB6.4a/W-CH6.4a/W-EU6.4a/W-OG6.4a/W-MM6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Who is entitled to benefit from these incentives?	Indicator for incentivized performance	Please explain
Monetary reward	No one is entitled to these incentives		There is no specific financial incentive linked to water stewardship, though our SiG Plan goals are included on our Corporate Scorecard and are a factor in assessing the overall performance of our manufacturing and procurement functions.
Recognition (non-monetary)	Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Operating Officer (COO) Chief Purchasing Officer	Reduction of water withdrawals Reduction of product water intensity Efficiency project or target – direct operations Efficiency project or target – upstream in the value chain	Our SiG Plan goals are included on our Corporate Scorecard and are a factor in assessing the overall performance of our manufacturing and procurement functions.

	(CPO) Chief Sustainability Officer (CSO)	Supply chain engagement	
Other non-monetary reward	No one is entitled to these incentives		

W6.5

(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
- Yes, other

W6.5a

(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?

Mars participates in all policy engagement and research that we support, enabling us to ensure these activities remain consistent with our water stewardship ambition and theory of change. As paying members of the organizations we support, we can influence their positions, policies and research objectives. We work with many trade associations around the world, and hold leadership positions in some of them. On some issues, our views are different from these organizations. On the rare occasions we cannot reach a compromise, we are willing to advocate independently or adopt internal policies to govern our activities.

The Mars Associates who work on policy initiatives are involved with multiple organizations, ensuring our positions are consistently communicated across all activities.

The selection of the organizations and policy initiatives we support is managed by our internal Sustainability Steering Group. This is intended to ensure that we work only with those organizations whose positions and policies are consistent and supportive of our own approach.

In all external engagements, we follow the policies in the Mars Guide to Global Standards, Policies and Practices, which help us to act with integrity, honesty and in line with The Five Principles. We make sure all relevant Associates understand and abide by these policies.

W6.6

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

Yes (you may attach the report - this is optional)

W7. Business strategy

W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	21-30	<p>Water stewardship is one of three priorities within the Healthy Planet pillar of the Mars Sustainable in a Generation Plan – our plan to grow in ways that are good for people, good for the planet, and good for our business. Our Healthy Planet ambition is to reduce our environmental impacts in line with what science says is necessary to keep the planet healthy.</p> <p>Agriculture is the biggest user of water, which means to manage water sustainably we need to focus on what's grown in our supply chains and where it's grown.</p> <p>Guided by science, our long-term goal is to eliminate water use in excess of sustainable levels in our</p>

			<p>value chain. We have not as yet set a date for this to be achieved as we recognise that value chain water targets are emerging areas and are dependent on data and accounting approaches that are developing rapidly.</p> <p>Our interim target is to halve unsustainable water use by 2025, in close collaboration with our suppliers and others in our extended value chain. As we gain experience reducing our water impacts as we deliver our 2025 target our understanding will increase and we expect to then set a long term target.</p> <p>For the irrigated raw materials we source with the greatest impacts on water stress (mint and rice), we investigate strategies to deliver quantified reductions in water withdrawals in stressed sourcing areas as part of The Mars Strategic Sourcing Methodology, our process for developing medium and long-term sourcing plans for key commodities.</p>
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	21-30	<p>All of our water stewardship strategies and programs will need to be implemented over the long-term.</p> <p>In our supply chain, we are prioritizing strategies in watersheds where we currently rely on irrigation and which are experiencing stress. These watersheds are located in Australia, India, Pakistan, Spain and the United States. We're assisting with farmer training and technology that helps advance more sustainable water use. Where we can't reduce water use to sustainable levels, we may engage in water recharge activities, such as landscape restoration, to recharge water levels to the point necessary to meet our targets. If interventions can't help relieve stress on a local watershed where we source, we are prepared to change where we source from to protect that watershed. Water stewardship has been integrated into our companywide process for assessing, selecting, contracting and monitoring suppliers.</p> <p>In our direct operations, we're focused on using water efficiently, promoting water reuse and recycling, and preventing pollution through responsible waste water management. We delivered an absolute reduction in global water use of 18% from 2007 to 2015; we're now focused on delivering</p>

			<p>an additional 15% improvement in water efficiency within our manufacturing facilities in water stressed regions by 2020.</p> <p>Our Water Stewardship Position Statement includes further examples of our water reduction strategies.</p>
Financial planning	Yes, water-related issues are integrated	5-10	<p>Over the three years to 2018 we almost tripled our sustainability investments (today a little shy of \$200M/year). Our investment between 2016 and 2019 will be approximately \$1 billion. The investments are roughly equal across our Healthy Planet, Thriving People and Nourishing Wellbeing pillars. A proportion of the investment in the Healthy Planet pillar is in water stewardship initiatives.</p> <p>The business case for this investment is based on four long-term benefits:</p> <ul style="list-style-type: none"> - Cost savings, e.g. from reduced water use in operations, longer-term supply contracts and lower water inputs in agriculture. - Risk reduction through e.g. avoiding business interruption and increased water supply costs. - Increased recruitment and retention of top talent based on our reputation for sustainability. - Sustainable business growth through improved customer engagement and trust.

W7.2

(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?

Row 1

Water-related CAPEX (+/- % change)

-19.3

Anticipated forward trend for CAPEX (+/- % change)

-5

Water-related OPEX (+/- % change)

29.9

Anticipated forward trend for OPEX (+/- % change)

-3

Please explain

Our CAPEX cost only includes capital investments made to improve water efficiency and excludes water-related investment at new sites and in some wastewater treatment, as this information is not collected centrally. As we now focus on sites in water-stressed areas (40% of sites), we are seeing some reduction in water spending during the transition as it takes time for CAPEX projects to impact sites. We expect this value to fall a little more and then begin to increase as water risks in stressed areas drive business responses. The OPEX cost includes the total spent on incoming water, water treatment and improving operational water efficiency. This is a relatively new indicator for our corporate data collection program and we believe the increase is a result of more complete disclosure in 2018. In the medium term, we expect these costs to fall aided by our water stewardship reviews, which tend to identify opportunities to both address water tariffs and make efficiency savings.

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

	Use of climate-related scenario analysis	Comment
Row 1	Yes	Mars uses the WRI Aqueduct tool to assess projected change in baseline water stress in geographies where we operate and source from. The projected change in baseline water stress is based on three different scenarios of climate change and socio-economic development created by the IPCC: the A2, A1B, and B1 scenarios. The Aqueduct assessments are used to prioritize watersheds under particular stress where we need to take action either by reducing water use in our facilities or through our sourcing strategies for our raw materials. In addition, we have worked with government agencies in Spain to assess the climate resilience and adaptive capacity of rice farming communities.

W7.3a

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

Yes

W7.3b

(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)	Description of possible water-related outcomes	Company response to possible water-related outcomes
Row 1	Other, please specify IPCC: A2, A1B, and B1 scenarios	Mars uses the WRI Aqueduct tool to assess projected change in baseline water stress in geographies where we operate and source from. The projected change in baseline water stress is based on three different scenarios of climate change and socio-economic development created by the IPCC: the A2, A1B, and B1 scenario. Using this tool, we've identified watersheds in our supply chain that are experiencing stress or may experience stress in the future. Some locations are included purely on the basis that Aqueduct shows they are likely to become water scarce in future due to climate change. Reduced water availability in these watersheds may affect farmers' ability to grow crops for our raw materials, leading to price increases or shortages.	<p>We use Aqueduct assessments to prioritize watersheds under the most stress and where water use is greatest. These watersheds are located in Australia, India, Pakistan, Spain and the United States. Our ultimate goal is to eliminate water use in excess of sustainable levels. As we work toward our ultimate goal, our interim target is to cut unsustainable water use by half by 2025, in close collaboration with our suppliers and others across our extended value chain.</p> <p>We're assisting with farmer training and technology that helps advance more sustainable water use. Where we can't reduce water use to sustainable levels, we may engage in water recharge activities, such as landscape restoration, to recharge water levels to the point necessary to meet our targets. These recharge activities will be in the same watersheds as those within which we operate/source and they will be independently verified.</p> <p>If interventions can't help relieve stress on a local watershed where</p>

			we source, we're prepared to change where we source to protect that watershed. Water stewardship has been integrated into our companywide process for assessing, selecting, contracting and monitoring suppliers.
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W7.4

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

Row 1

Does your company use an internal price on water?

Yes

Please explain

We monitor centrally the cost of each site's water use and wastewater treatment. The results show that water forms a very small part of our operating costs and we expect that to remain the case. We have piloted the use of the Ecolab/Trucost Water Risk Monetiser tool at two locations. However, we did not find an artificial water price useful for assessing value and risk, compared with other tools such as WRI Aqueduct and the WWF Water Risk Filter. Instead, to drive water-efficiency, we have developed an internal Mars True Cost of Water Tool that highlights the "hidden" costs of energy, chemical, maintenance and other treatments associated with factory water use. In 2017, the Mars True Cost of Water Tool became a recommended practice for chocolate manufacturing sites in water-stressed locations. We will monitor the success of the tool at chocolate sites and may decide to roll it out to other segments in future.

W8. Targets

W8.1

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

Levels for targets	Monitoring at	Approach to setting and monitoring targets and/or goals
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	and/or goals	corporate level	
Row 1	<p>Company-wide targets and goals</p> <p>Business level specific targets and/or goals</p> <p>Activity level specific targets and/or goals</p> <p>Site/facility specific targets and/or goals</p> <p>Basin specific targets and/or goals</p>	<p>Targets are monitored at the corporate level</p> <p>Goals are monitored at the corporate level</p>	<p>The impacts of water use vary depending on geography and the water source – water is more precious in the desert than in the rainforest, and treated tap water is more valuable than collected rainwater or reused process water. Our approach to water reflects this, by seeking to understand the impacts that our operations and those of our raw material suppliers have on both the availability and quality of water, at watershed level. As a result, we are introducing context-based water targets (CBWT) to reduce water impacts from activities in Mars' extended value chain. CBWT are based on science and informed by stakeholder consultation to reflect the varying societal demands and issues affecting the different watersheds our business touches. As methodologies for defining science-based corporate water targets are not yet widely accepted and remain under development, Mars is contributing to closing this gap. In the meantime, we have defined a water-saving allocation approach using water-scarcity data from WRI's Aqueduct platform. This data has been used to quantify Mars' fair share of the water withdrawal reductions needed to address water scarcity in highly-stressed watersheds where we have activities.</p> <p>Mars regards its water usage in a watershed to be sustainable if:</p> <ul style="list-style-type: none"> - It is operating in a watershed with a BWS over 40%. - Or watershed BWS over 40% and Mars has reduced its total (supply chain) blue water withdrawals since its 2015 base year, in excess of the ratio that the current watershed BWS exceeds 40%. - Or the gap to sustainable water use has been closed in the watershed by a combination of reduced supply chain water use and recharge/ replenishment activities. <p>Our Water Stewardship Position Statement provides full details of our approach, including a methodology and glossary section.</p> <p>The SIG Plan target is cascaded to our business segments and functions. Site-specific targets are calculated at basin level.</p>

W8.1a

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

Target reference number

Target 1

Category of target

Water withdrawals

Level

Other, please specify
Value chain wide

Primary motivation

Risk mitigation

Description of target

Mars' water stewardship goal is to ensure water use in our value chain is within annually renewable levels by watershed.

The gap to sustainable water use levels in a watershed (000 m3)
= Annual total water withdrawals in watershed (000 m3) x (BWS - 40%) / BWS
where BWS = base line water stress for location from WRI Aqueduct

We chose this goal because it is context-based, and so focuses on playing our part in solving water availability in the watersheds we operate in or source from. This is a global goal. In support of this overall goal, we will work towards individual improvement targets for raw materials such as rice, maize, mint, sugar and peanuts that involve high water usage and are sourced from water-scarce areas. These targets will consider areas such as irrigation water efficiency and evapotranspiration benchmarks. Similarly, we have set intensity targets for factories in water-scarce areas.

We are still assessing what is the feasible time period for achieving this goal.

Quantitative metric

Other, please specify

See description of target above

Baseline year

2015

Start year

2017

Target year

% achieved

6.4

Please explain

The gap to sustainable water use levels actually has reduced by 6.4% from our 2015 baseline. This reduction is associated with the deployment of strategies aimed at reducing unsustainable water use, including our purchasing decisions for raw materials such as rice and mint, and our efficiency improvement programs. This is a long-term target, which we are measuring progress toward using our interim target for 2025 (see Target 2).

More information is available in our Water Impacts Position Statement: https://www.mars.com/docs/default-source/Policies-and-Practices/water-stewardship-position-statement_083017.pdf?sfvrsn=0

Target reference number

Target 2

Category of target

Water withdrawals

Level

Other, please specify
Value chain wide

Primary motivation

Risk mitigation

Description of target

We will halve the gap to sustainable water usage levels in stressed watersheds where we operate by 2025 (from 2015 levels).

This is a shorter-term target to encourage progress towards Target 1.

The gap to sustainable water use levels in a watershed (000 m3)
= Annual total water withdrawals in watershed (000 m3) x (BWS - 40%) / BWS
where BWS = base line water stress for location from WRI Aqueduct

Quantitative metric

Other, please specify
See description of target above

Baseline year

2015

Start year

2017

Target year

2025



% achieved

12.8

Please explain

The gap to sustainable water use levels actually has reduced by 6.4% since 2015, meaning that we have achieved 12.8% of our target to halve the gap by 2025. This reduction is associated with the deployment of strategies aimed at reducing unsustainable water use, including our purchasing decisions for raw materials such as rice and mint, and our efficiency improvement programs.

More information is available in our Water Impacts Position Statement: https://www.mars.com/docs/default-source/Policies-and-Practices/water-stewardship-position-statement_083017.pdf?sfvrsn=0

Target reference number

Target 3

Category of target

Water use efficiency

Level

Site/facility

Primary motivation

Risk mitigation

Description of target

We will improve water intensity (m3/tonne) by 15% at factories in water-stressed locations.

Quantitative metric

% reduction in total water withdrawals

Baseline year

2015

Start year

2015

Target year

2020

% achieved

8.23

Please explain

Our manufacturing sites in stressed locations have achieved an 8.23% reduction in water intensity since 2015. This reduction is a result of focusing our water efficiency resources on improvement programs at sites in water-stressed areas. Additionally, a major CAPEX project at the site making the second-highest water withdrawals in our global network has considerably reduced water use. This site uses river water and has rationalized its water treatment facilities to greatly improve its efficiency.

W8.1b

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

Goal

Other, please specify

Conduct water stewardship reviews

Level

Site/facility

Motivation

Risk mitigation



Description of goal

Twenty Mars factories facing the greatest water-related risks will complete water stewardship reviews based on the AWS International Standard by 2020.

Baseline year

2015

Start year

2017

End year

2020

Progress

We have categorized our sites into three levels: low water risk (level 1), sites in water-scarce locations (level 2), and sites where water is a significant business risk (level 3). At least 20 level-3 sites will complete water stewardship reviews by 2020. Four reviews were completed at sites in the UK, China and California in 2016 and 2017. During 2018, further reviews took place at four sites in the UK, USA and Poland.

W9. Linkages and trade-offs

W9.1

(W9.1) Has your organization identified any linkages or tradeoffs between water and other environmental issues in its direct operations and/or other parts of its value chain?

Yes

W9.1a

(W9.1a) Describe the linkages or tradeoffs and the related management policy or action.

Linkage or tradeoff

Linkage

Type of linkage/tradeoff

Decreased GHG emissions

Description of linkage/tradeoff

Wind energy has an extremely low water footprint compared with conventional electricity sources such as fossil fuels, biomass or nuclear fission. As of end-2018, national-scale wind-based renewable projects met most of our electricity demand in the UK and USA and represented 37% of our total global electrical demand (3,083TJ/yr). This has a significant impact on our water footprint. Electricity generated from coal has a consumptive water footprint (fuel, operation and construction) of 79-2100 M3/TJ, and from natural gas of 76–1240 m3/TJ, compared with 0.2–12 M3/TJ for electricity generated by wind *.

A conservative estimate (assuming electricity is fully generated from natural gas) indicates that these UK and US wind projects are saving between (0.2 and 3.8 million m3/yr of consumptive water use).

*(Mekonnen, M.M.; Gerbens-Leenes, P.W.; Hoekstra, A.Y. The consumptive water footprint of electricity and heat: A global assessment. Environ. Sci. Water Res. Technol. 2015, 1, 285–297).

Policy or action

We have a global, renewable electricity program in service of our climate commitments, with national-scale wind farms already providing renewable electricity for our sites in the UK and USA, and a further wind project began providing renewable electricity to our Mexican operations in 2018, making a further significant positive contribution to reducing our water footprint in a water-stressed country. This renewable program will deliver 100% renewable electricity by 2040 at an annual reduction rate of 4% per year. Therefore our Climate Action policy and program is also significantly reducing our water use, which we reference in our Water Position statement on www.mars.com. While we are currently unable to accurately calculate these water impacts, we have been working with WRI and others to address the complexity involved in assessing the water impacts of electricity procurement, and we look forward to a technical paper being published on this topic later in 2019, which we have helped critique. We are supporting a project led by WRI to develop a Scope 2 water impact assessment methodology.

Linkage or tradeoff

Tradeoff

Type of linkage/tradeoff

Increased GHG emissions

Description of linkage/tradeoff

Some of our manufacturing sites in areas of high water stress experience a trade-off between reducing water intensity and decreasing energy intensity, because water-based cooling systems are more energy efficient. At one highly water-stressed site in our network, cooling system water use represents 50-60% of total site water usage, but a much smaller part of site energy usage. Accepting a small increase in site energy use (which could be mitigated from a climate point of view through the use of renewable energy) has the potential to more than halve site water use.

Policy or action

Where there are direct trade-offs between water stewardship and carbon savings, such as cooling system design at factories in water-scarce locations, we seek to understand these trade-offs and make the correct water or energy decision based on a holistic assessment of the environmental challenges being faced. For example, in 2017 we held a workshop to investigate case studies that can help us understand water vs climate trade-offs to aid the design of appropriate cooling systems for factories in water-stressed locations. This was a successful session, with corporate sustainability team members and utility system design leaders from our businesses combining to establish principles that now guide the development of engineering and site standards. Plans are now being made at least one of our high-risk water-stressed sites to change from consumptive water cooling to air cooling.

W10. Verification

W10.1

(W10.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1d)?

No, but we are actively considering verifying within the next two years

W11. Sign off

W-FI

(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

W11.1

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

	Job title	Corresponding job category
Row 1	Vice President, Supply, Research and Development and Procurement	Chief Operating Officer (COO)

W11.2

(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

SW. Supply chain module

SW0.1

(SW0.1) What is your organization's annual revenue for the reporting period?

Annual revenue

Row 1	35,000,000,000
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SW0.2

(SW0.2) Do you have an ISIN for your organization that you are willing to share with CDP?

No

SW1.1

(SW1.1) Have you identified if any of your facilities reported in W5.1 could have an impact on a requesting CDP supply chain member?

No, CDP supply chain members do not buy goods or services from facilities listed in W5.1

SW1.2

(SW1.2) Are you able to provide geolocation data for your site facilities?

Yes, for some facilities

SW1.2a

(SW1.2a) Please provide all available geolocation data for your site facilities.

Identifier	Latitude	Longitude	Comment
Motemorelos factory, Mexico	25.235	99.808	We have geo-location data for all of our factories, but for this year we have chosen to provide data for factories relevant to the requesting customer.
Guadalajara factory, Mexico	20.407	-103.025	
Queretaro factory, Mexico	20.584	-100.373	

Santa Catarina factory, Mexico	25.68	-100.474	
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SW2.1

(SW2.1) Please propose any mutually beneficial water-related projects you could collaborate on with specific CDP supply chain members.

SW2.2

(SW2.2) Have any water projects been implemented due to CDP supply chain member engagement?

No

SW3.1

(SW3.1) Provide any available water intensity values for your organization's products or services across its operations.

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	Public or Non-Public Submission	I am submitting to	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Public	Investors	Yes, submit Supply Chain Questions now



		Customers	
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Please confirm below

I have read and accept the applicable Terms