

W0. Introduction

W0.1

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

Tyson Foods, Inc. (NYSE: TSN) is one of the world's largest food companies and a recognized leader in protein. Founded in 1935 by John W. Tyson and grown under three generations of family leadership, the company has a broad portfolio of products and brands like Tyson®, Jimmy Dean®, Hillshire Farm®, Ball Park®, Wright®, Aidells®, IBP® and State Fair®. Tyson Foods innovates continually to make protein more sustainable, tailor food for everywhere it's available and raise the world's expectations for how much good food can do. Headquartered in Springdale, Arkansas, the company had 121,000 team members as of September 29, 2018. Through its Core Values, Tyson Foods strives to operate with integrity, create value for its shareholders, customers, communities and team members and serve as a steward of the animals, land and environment entrusted to it.

Please note: the reporting period end date was changed from 9/29/18 to 10/1/18 to comply with CDP's ORS requirement of providing a start date that is 364-367 days before the end date. However, Tyson Foods' fiscal year is 10/01/17 to 9/29/18.

W-FB0.1a

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

- Agriculture
- Processing/Manufacturing
- Distribution

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	October 1 2017	October 1 2018

W0.3

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

- 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
International Operations (outside U.S.)	Data for our international (outside US) operations is not available at this time. We are currently evaluating our management practices and partnerships in other countries to identify how to collect this information in the future.
Other	This footprint includes data from our U.S.-based operations. Information from our U.S.-based Cobb-Vantress, The Pork Group, hog buying stations, Tecumseh Poultry, American Proteins and Keystone Foods are not included in this footprint.

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	Important	Sufficient amounts of good quality freshwater is of vital importance for the production of all of our food products, and we recognize water of suitable quality and volume is a finite resource. Freshwater must be used and managed responsibly from farm to finished product. It is vital because food safety and quality is our top priority, and water is essential to producing safe food. We aim to balance responsible water stewardship with protecting the quality and safety of our products. Indirectly, freshwater is also very important for the production of the animal products we source across our value chain (i.e., cattle), although we may be able to mediate some risk through supply chain diversification. We do not see this dependency on water in our direct and indirect operations becoming any less important in the future, which is why we take a holistic approach to water stewardship beginning with the responsible use of this resource in our operations.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	We consider recycled water to be important but not vital to our direct business operations and our supply chain. Food safety and quality is our top priority and water is essential to producing safe food. Opportunities to use recycled water, while ensuring safety and quality, helps us deliver on our commitment to water stewardship. We seek opportunities to use recycled water where feasible in our operations and supply chain in alignment with our commitment to water stewardship. In accordance with USDA regulations, use of recycled water in food processing plants is currently limited to non-food contact applications. Outside of plant operations, we focus on beneficial re-use of recycled water. In the future we see the availability of recycled water as remaining important for direct and indirect uses as we seek to accomplish our water stewardship goals.

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
Cattle products	21-40	Sourced	We participate in the open commodity market with our own set of regionally based cattle buyers. We negotiate our purchases with cattle feeders ranging from feedlots with thousands of head of cattle to small farming operations with just a few head of cattle. We do not own any cattle or feeding operations. Therefore, these animals are fed by independent farmers before being purchased by Tyson Foods for harvest.
Soy	21-40	Sourced	As a vertically integrated poultry company, we operate feed mills to produce scientifically formulated feeds for our broiler chickens and turkeys. Corn and soybean meal are the primary raw materials used to produce feed. We procure corn and soybean meal on the commodity market.
Other, please specify (Chicken products)	21-40	Produced	There are seven stages in producing chicken for consumers including breeder flock, pullet farm, breeder house, hatchery, broiler farm, processing/further-processing, and distribution. As a vertically integrated poultry company, we own each step of this process with the exception of the independent broiler chicken farmers who are independent contractors. We operate feed mills that produce scientifically formulated feeds for our chickens. Corn and soybean meal are two of the primary ingredients in chicken feed. Once the chickens are ready to harvest, they are transported to one of our harvesting plants. Food safety and quality is our top priority and water is essential to producing safe food. We aim to balance responsible water stewardship with protecting the quality and safety of our products.

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	Tyson has implemented a third-party billing system and uses internal tracking mechanisms that provides access to water withdrawal data information for our US facilities. Many sites have flow meters which can be accessed as needed (daily or otherwise) to obtain flow data .
Water withdrawals – volumes from water stressed areas	1-25	We have worked with WRI to assess which production plants are considered to be in water stressed areas based on a combination of factors. As noted for "Water Withdrawals – total volumes", these sites have flow meters which can be accessed as needed (daily or otherwise) to obtain flow data.
Water withdrawals – volumes by source	76-99	We have an understanding for almost all locations of the water source. Some municipal sources use a combination of surface and ground water sources, and these cannot always be separated by volume. As noted for "Water Withdrawals – total volumes", many of these sites have flow meters which can be accessed as needed (daily or otherwise) to obtain flow data.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sectors]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>
Water withdrawals quality	76-99	As a food company, and because our team members drink the water supplied in our plants, all water entering the plant must meet USEPA Primary Drinking Water Standards. If the water is withdrawn on Tyson property and treated by Tyson for use within the plant, the general water quality parameters are known in order to facilitate proper treatment to meet the previously mentioned drinking water Standards. This information is regularly gathered and documented.
Water discharges – total volumes	76-99	For locations where Tyson holds a wastewater discharge permit from a state agency, water discharge is measured as part of the permit conditions. This is done using a flow meter or similar device to determine flow volumes on a daily basis. For discharges to municipal systems, some systems monitor discharge flow. For those that do not, a conservative estimate can be made from the incoming water volume. In this case the incoming flow is metered as noted in "Water Withdrawals – total volumes".
Water discharges – volumes by destination	76-99	Water discharged either goes to a Tyson treatment facility, or to a municipal treatment system. We know which plants discharge to each type of location. This flow is measured using flow meters or similar devices; see "water discharges – total volumes".
Water discharges – volumes by treatment method	76-99	This represents all of our full treatment facilities (36) where we regularly monitor flow and quality prior to discharge. The remainder of our facilities (55) discharge to municipal treatment facilities. This is done using a flow meter or similar device to determine flow volumes on a daily basis.
Water discharge quality – by standard effluent parameters	76-99	100% of our US facilities are required to report discharge quality data to local and/or state regulatory bodies on a regular basis. This data is gathered and reported in accordance with the facility discharge permit conditions.
Water discharge quality – temperature	1-25	Two Tyson locations are required by their regulatory permits to monitor wastewater discharge temperatures. We do not monitor wastewater discharge temperatures at our other facilities. This data is gathered and reported in accordance with the facility discharge permit conditions.
Water consumption – total volume	76-99	We calculate our total water consumption at 100% of our US facilities (total withdrawals – total discharge). See metering and measuring notes form "Water Withdrawals – total volumes" and "Water Discharges – total volumes".
Water recycled/reused	1-25	At six plant locations we meter or otherwise measure water recycling and reuse. This includes wastewater irrigation and internal recycling. There are multiple other sites within Tyson that reuse water, but it is not measured and there not capable of being quantified.
The provision of fully-functioning, safely managed WASH services to all workers	76-99	100% of our US facilities provide WASH services to all workers. This is an OSHA regulatory requirement.

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	119454	About the same	Water withdrawals were about the same in 2018 as they were in 2017 (120,727 megaliters). Tyson produced 336MM lbs. less product in 2018, but also used 1,274 less megaliters of water. Our water use intensity also decreased since last year by 3.59%. As we progress on our water stewardship goals we plan to reduce intensity of water withdrawal in the future.
Total discharges	113044	About the same	Water discharges were about the same in 2018 as they were in 2017 (117,168 megaliters). All water discharged either goes to a Tyson treatment facility, or to a municipal treatment system. As we progress on our water stewardship goals we plan to reduce intensity of water discharge in the future.
Total consumption	6410	Higher	Water consumption was about the same in 2018 as it was in 2017 (3,559 megaliters). Tyson has surveyed our US facilities to gain a better understanding of how water consumption data is measured and recorded by source. As we progress on our water stewardship goals future water use intensity should decrease. The reported figures match: C (6,410) = W (119,454) – D (113,044).

W1.2d

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

	% withdrawn from stressed areas	Comparison with previous reporting year	Identification tool	Please explain
Row 1	19	Higher	WRI Aqueduct	We have worked with WRI to assess which production plants are considered to be in water stressed areas based on a combination of factors. As noted for "Water Withdrawals – total volumes", these sites have flow meters which can be accessed as needed (daily or otherwise) to obtain flow data. The percentage is higher this year compared to last year because the methodology currently used is more conservative and detailed which resulted in additional plants (and water volume) being added to the list.

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
Cattle products	Yes	Yes	Using the work we did with WRI, this value is based on an assumption that the commodity used at water stressed plants is 100% produced and sourced from a water stressed area. The data was obtained using the NorthStar Initiative for Sustainable Enterprise model and is believed to provide a very conservative estimate.
Soy	Yes	Yes	Using the work we did with WRI, this value is based on an assumption that the commodity used at water stressed plants is 100% produced and sourced from a water stressed area. The data was obtained using the NorthStar Initiative for Sustainable Enterprise model and is believed to provide a very conservative estimate.
Other commodities from W-FB1.1a, please specify (Chicken products)	Yes	Yes	Using the work we did with WRI, this value is based on an assumption that the commodity used at water stressed plants is 100% produced and sourced from a water stressed area. The data was obtained using the NorthStar Initiative for Sustainable Enterprise model and is believed to provide a very conservative estimate.

W-FB1.2f

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

Agricultural commodities	% of total agricultural commodity produced in water stressed areas	Please explain
Cattle products	58	58
Soy	8	8
Other produced commodities from W-FB1.2e, please specify (Chicken products)	8	8

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
Cattle products	58	We anticipate our future sourcing geographies for these commodities to remain consistent, so the percentage should stay approximately the same.
Soy	8	We anticipate our future sourcing geographies for these commodities to remain consistent, so the percentage should stay approximately the same.
Other sourced commodities from W-FB1.2e, please specify (Chicken products)	8	We anticipate our future sourcing geographies for these commodities to remain consistent, so the percentage should stay approximately the same.

W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Not relevant	<Not Applicable>	<Not Applicable>	This source is not relevant because Tyson does not withdrawal water from fresh surface water, including rainwater, water from wetlands, rivers, and lakes for its operations. We anticipate this will remain the same in the future.
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	This source is not relevant because Tyson does not withdrawal water from brackish surface water/seawater for its operations. We anticipate this will remain the same in the future.
Groundwater – renewable	Relevant	24456	About the same	This source is relevant because Tyson withdraws groundwater from renewable aquifers for its operations. Groundwater withdrawals in 2018 were about the same as 2017 groundwater withdrawals of 26,560 megaliters however since our baseline of 2015 withdrawal intensity has decreased. Tyson produced 336MM lbs. less product in 2018, and overall used 1,274 less megaliters of water, a change of about 1% from 2017 – consistent with the change from groundwater sources. Our water intensity decreased 3.59% as compared to FY2017. As we progress on our water stewardship goals we plan to reduce intensity of water withdrawal in the future.
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	This source is not relevant because Tyson does not withdrawal water from non-renewable groundwater for its operations. We anticipate this will remain the same in the future.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	This source is not relevant because Tyson does not withdrawal water from produced water for its operations. We anticipate this will remain the same in the future.
Third party sources	Relevant	94998	About the same	This source is relevant because Tyson withdraws water from third-party sources for its operations. Third party source withdrawals in 2017 were 94,167 megaliters, which is about the same as 2018, however since our baseline of 2015 withdrawal intensity has decreased. Tyson produced 336MM lbs. less product in 2018, and overall used 1,274 less megaliters of water, a change of about 1% from 2017 – consistent with the change from third party sources. Our water intensity decreased 3.59% as compared to FY2017. As we progress on our water stewardship goals we plan to reduce intensity of water withdrawal in the future.

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	50850	About the same	This source is relevant because Tyson discharges water to fresh surface water sources from its operations. Fresh surface water discharge in 2018 was about the same as the 2017 value of 53,897 megaliters however discharge intensity decreased 2.96% from our baseline in 2015. Tyson produced 336MM lbs. less product in 2018, and overall used 1,274 less megaliters of water, consistent with the decrease in discharge to fresh surface water. Our water intensity decreased 3.59% as compared to FY2017 as our company growth increased by 4.7%. As we progress on our water stewardship goals we plan to reduce intensity of water discharge in the future.
Brackish surface water/seawater	Not relevant	<Not Applicable>	<Not Applicable>	This source is not relevant because Tyson does not discharge water from its operations to brackish surface water/seawater. We anticipate this will remain the same in the future.
Groundwater	Relevant	12927	About the same	This source is relevant because Tyson discharges water to groundwater sources from its operations. Groundwater discharge in 2018 was about the same as the 2017 value of 15,232 megaliters however discharge intensity decreased 2.96% from our baseline in 2015. Tyson produced 336MM lbs. less product in 2018, and overall used 1,274 less megaliters of water, consistent with the decrease in discharge to groundwater. Our water intensity decreased 3.59% as compared to FY2017 as our company growth increased by 4.7%. As we progress on our water stewardship goals we plan to reduce intensity of water discharge in the future.
Third-party destinations	Relevant	49267	About the same	This source is relevant because Tyson discharges water to third-party sources from its operations. Third-party destination discharges in 2018 were about the same as the 2017 value of 48,039 megaliters however discharge intensity decreased 2.96% from our baseline in 2015. Tyson produced 336MM lbs. less product in 2018, and overall used 1,274 less megaliters of water, consistent with the decrease in discharge to third-party sources. Our water intensity decreased 3.59% as compared to FY2017 as our company growth increased by 4.7%. As we progress on our water stewardship goals we plan to reduce intensity of water discharge in the future.

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	Higher	We reuse and recycle water at a number of our plants. This includes water recycled within processes and generated wastewater reused for crop irrigation. For the percentage reported, this volume is measured using flow meters. There is additional flow volume which is not metered, and not accounted for in this value. Due to increased efforts in our water efficiency program, Tyson expects to continue to find further opportunities to increase recycled and reused water in the future.

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
Cattle products	No, not currently and we have no plans to collect/calculate this data within the next two years	No, not currently and we have no plans to collect/calculate this data within the next two years	We are not currently collecting this information.
Soy	No, not currently and we have no plans to collect/calculate this data within the next two years	No, not currently and we have no plans to collect/calculate this data within the next two years	We are not currently collecting this information.
Other commodities from W-FB1.1a, please specify (Chicken products)	No, not currently and we have no plans to collect/calculate this data within the next two years	No, not currently and we have no plans to collect/calculate this data within the next two years	We are not currently collecting this information.

W1.4

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

Yes, our suppliers

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

1-25%

% of total procurement spend

26-50

Rationale for this coverage

Since the program is relatively new, we wanted to ensure there would be enough feedlots / cattle enrolled in the program to meet our procurement goal of 2 million head in the first year.

Impact of the engagement and measures of success

In 2018, we demonstrated our commitment to supply chain transparency by becoming the first beef processor to license the Progressive Beef™ (PB) program, a comprehensive quality management system designed for cattle feeding operations that sell to companies like Tyson Foods. Progressive Beef covers all aspects of day-to-day cattle care. Cattle feeding operators certified in the program follow best practices for animal welfare, food safety, responsible antibiotic use and environmental sustainability. All of these practices are verified twice per year through USDA-approved auditors. Measures of success include sustainability benchmarks related to efficient use of natural resources and employee safety rates and responsible antibiotic use. Licensing the program allows us to better collaborate with our supply chain and measure the progress we're making in beef sustainability.

Comment

Our goal is to buy 2 million program cattle in the first year and to grow this to 50 percent of all the cattle we source after three years. Coverage for this question is based on the number of chicken, cattle, hog & turkey farmers we worked with in FY2018 (9,248). While the % of suppliers by number (less than 1%), participating in the PB program is not large, it does represent several of our large suppliers & a substantial volume of the cattle procured, approximately 30% in FY18.

W1.4b

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

Type of engagement

No other supplier engagements

Details of engagement

<Not Applicable>

% of suppliers by number

<Not Applicable>

% of total procurement spend

<Not Applicable>

Rationale for the coverage of your engagement

Impact of the engagement and measures of success

<Not Applicable>

Comment

<Not Applicable>

W2. Business impacts

W2.1

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

No

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?

No

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?

The primary pollutant attributed to global meat industry activities is nutrient runoff. Nutrients flowing into streams, rivers, and the ocean from agriculture and wastewater stimulate an overgrowth of algae which can have a negative effect on aquatic ecosystems, and indirectly human health. Tyson encourages farmers to implement optimized nutrient management practices, such as routine surface water testing for heightened Nitrogen and Phosphorous levels, in order to reduce nutrient loads on aquatic ecosystems and eliminate potential threats to human health. We understand that the world needs a more sustainable food system, predicated on improved land and fertilizer management, and it's up to companies like Tyson to set the pace with bold goals that help protect the planet while also enabling us to feed a growing world. As such, Tyson has committed to support improved environmental practices on two million acres of corn by the end of 2020, which is the largest-ever land stewardship commitment by a U.S. protein company. This two-million acre commitment will encourage grain farmers to adopt more efficient fertilizer practices, and take additional measures to reduce water runoff and soil loss.

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

Other, please specify (Nutrients)

Activity/value chain stage

Agriculture – supply chain

Description of water pollutant and potential impacts

Nutrients are used in the production of grains to ensure they receive enough nutrients for optimized growth. Tyson Foods does not own grain farms but buys corn and soybeans to feed its poultry. It also buys cattle and hogs from farmers and ranchers who use grain to feed their animals. Nutrients which are not properly managed can make their way into streams, rivers, and the ocean and stimulate an overgrowth of algae, which can have a negative effect on aquatic ecosystems, and indirectly human health.

Management procedures

Soil conservation practices

Other, please specify (Nutrient management)

Please explain

Tyson encourages farmers to implement efficient land and nutrient management practices. Tyson Foods has made a commitment to support improved environmental practices on two million acres of corn by the end of 2020. To reach the land stewardship target, we are engaging the broader allied industry in establishing criteria that result in meaningful outcomes. We are also working with multiple organizations to develop programs to encourage corn farmers to adopt practices that optimize soil health, and that reduce fertilizer use and soil loss. We are collaborating with various environmental groups, such as the Nature Conservancy and others, as well as academic experts to validate our approach and progress made. We look forward to updating you, our stakeholders, on our progress when we have more to share.

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

Partial

Risk assessment procedure

Water risks are assessed as a standalone issue

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

Other

Tools and methods used

WRI Aqueduct

Internal company methods

External consultants

Other, please specify (NorthStar database methodology)

Comment

In 2018 Tyson assessed our exposure to water risk for our direct operations, for each Business Unit (Poultry, Beef, Pork, Prepared Foods). We modeled the water stress in the areas where animals are procured for Tyson's processing facilities, exposure to water stress for Raising Animals (Poultry, Beef, Pork), water stress in the areas where animals are procured, corn feed for raising animals, exposure to water stress in corn feed (Poultry, Beef, Pork), and nitrogen loading resulting from raising animals and corn feed (Poultry, Beef, Pork). The results of the assessment were used to identify priority locations for water stewardship activities.

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed as a standalone issue

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

Other

Tools and methods used

WRI Aqueduct

Internal company methods

External consultants

Comment

In FY16 and into FY17, we launched an initiative to better understand sustainability related risks and opportunities within our business with the intent of strengthening our social and environmental performance, including performance related to water management. As part of this initiative we maintain a collaboration with the World Resources Institute (WRI) to become an industry leader by setting outcome-based as well as context-based water conservation targets for our operations and our supply chain.

Other stages of the value chain

Coverage

None

Risk assessment procedure

<Not Applicable>

Frequency of assessment

<Not Applicable>

How far into the future are risks considered?

<Not Applicable>

Type of tools and methods used

<Not Applicable>

Tools and methods used

<Not Applicable>

Comment

Not Applicable

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 basin/catchment level	Relevant, always included	In 2018 Tyson reassessed our water availability and quality parameters all of our business units using WRI Aqueduct and NorthStar data to understand water availability as a basin/catchment level to strengthen our social and environmental performance. We completed a review of water usage, infrastructure, conservation practices, and scarcity risks at our operations to help ensure we have a complete picture of the current operational sustainability of our company's water supplies. We then assessed our facility efficiency to identify opportunities for water resource optimization.
Water quality at a basin/catchment level	Relevant, always included	In the late summer/early fall FY16 and into FY17, we launched an initiative to better understand sustainability related risks and opportunities within our business with the intent of establishing strategies and programs to strengthen our social and environmental performance, including performance related to water management. As part of this initiative as well as our deeper commitment to sustainable food production, we maintain a collaboration with the World Resources Institute to become an industry leader by setting outcome-based as well as contextual water conservation targets for our operations and our supply chain by completing a review of water usage, infrastructure, conservation practices, and scarcity risks at our operations.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, not included	We actively monitor water risks at our US operations and are actively engaging with local communities and stakeholders to reduce our impact on water resources, and to collaborate on projects to ensure the longevity of water resources. Although this is not actively included in our water risk assessment, it is regularly monitored by our facilities and our corporate team.
Implications of water on your key commodities/raw materials	Relevant, always included	Through our 2018 WRI Aqueduct Assessment leveraging NorthStar data to review water usage, infrastructure, conservation practices, and scarcity risks at our operations.
Water-related regulatory frameworks	Relevant, always included	Our US-based facilities for processing chicken, beef, pork, turkey and prepared foods, milling feed and housing live chickens and swine are subject to a variety of federal, state and local environmental laws and regulations, which include provisions relating to the discharge of materials into the environment and generally provide for protection of the environment, making this issue relevant for our business. Tyson Foods maintains an Electronic Compliance Assurance Toolset (eCAT) system that is designed to: • Track regulatory and company required environmental tasks; • Highlight receipt of environmental awards and recognition; • Archive details on accidental environmental releases; • Automatically generate escalating e-mail notifications to multiple layers of management if environmental tasks are not managed in a timely manner; and • Capture information and tasks resulting from regulatory agency visits. We also provide access to electronic copies of permit documents and information via our internal SharePoint platform.
Status of ecosystems and habitats	Not considered	Although our water risk assessment does not evaluate current status of ecosystems and habitats at a local level, we are actively collaborating with local stakeholder groups and non-governmental organizations to develop best management practices for water use and conservation to ensure quality of water resources and ecosystems in our areas of operation. For example, we committed to support improved environmental practices on 2 million acres of corn production by the end of 2020. This is the largest-ever land stewardship commitment by a U.S. protein company and is expected to lower the greenhouse gas emissions generated by our supply chain.
Access to fully-functioning, safely managed WASH services for all employees	Not relevant, explanation provided	We currently provide fully-functioning WASH services to employees at all of our US-based locations. This is not anticipated to become relevant to water-related risk assessment in the future.
Other contextual issues, please specify	Not considered	Not applicable.

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	Our water risk assessment process is focused on our US operations and currently does not extend to our value chain or customers. Although not specifically targeted in our water risk assessment, we engage with our customers in virtually every aspect of our operations and business transactions and are attuned to their concerns and interests, including aspects of our environmental performance and management. For example, customers were interviewed during our 2017 Materiality Assessment, in which water was ranked as a material issue.
Employees	Relevant, always included	Although employees were incorporated into the water risk assessment process because they are a part of the local community that is being impacted by water risks. The results of the water risk assessment have been used to inform plant managers of potential water risks and foster discussion on water initiatives at a facility level. As part of our 2017 Materiality Assessment, we conducted interviews with key internal decision makers to inform the "importance to business" ratings. Additionally, we conducted an on-line survey of internal employees and asked them to rank the issues of greatest importance and concern to them. Water management was a highly ranked sustainability issue in our Materiality Assessment. Additionally, in FY2016, we announced a 12 percent water reduction goal by the end of 2020 for our direct operations.
Investors	Relevant, always included	Tyson is aware of the information investors are seeking on the water risks of our operations. Our 2014 University of Arkansas Water Risk Assessment, our FY17 sustainability report, and the 2017 CDP Water response reflect these information requests. Our 2017 Materiality Assessment was a stakeholder engagement exercise designed to identify environmental, social, and governance issues that could potentially impact our business and stakeholders. Additionally, in FY2016, we announced a 12 percent water reduction goal by the end of 2020 for our direct operations. In the late summer/early fall FY16 and into FY17, we launched an initiative to better understand sustainability related risks and opportunities within our business with the intent of establishing strategies and programs to strengthen our social and environmental performance, including performance related to water management. In 2018 Tyson collaborated with the World Resources Institute (WRI) to conduct a Water Risk Assessment. As part of this risk assessment we conducted an analysis of water risk and scarcity across our direct operations and our supply chain in the United States using the WRI Aqueduct tool. Thirteen facilities were identified to be in high-risk areas.
Local communities	Relevant, always included	We actively monitor water risks at our US operations and are actively engaging with local communities and stakeholders to reduce our impact on water resources, and to collaborate on projects to ensure the longevity of water resources. We engage with local communities on aspects of water stewardship via strategic community involvement plans, donations, community outreach, environmental management systems, partnerships and sponsorships.
NGOs	Relevant, always included	Tyson acknowledges the interest that NGOs have in water risks, the role they play in addressing water risks, and the importance of collaboration and partnerships for water stewardship initiatives and opportunities. We are actively collaborating with local stakeholder groups and non-governmental organizations to develop best management practices for water use and conservation to ensure quality of water resources and longevity of watersheds and river basins in our areas of operation. For example, we continue to collaborate with The Nature Conservancy to support projects intended to conserve water quality in rivers and streams throughout Northwest Arkansas and Southwest Missouri. The projects include stream restoration, reforestation, erosion prevention, unpaved road improvements, watershed research and community engagement in conservation projects throughout the area, including the Kings, Elk and the Buffalo National River.
Other water users at a basin/catchment level	Relevant, always included	Our U.S.-based operations are regularly in contact with local regulators, agricultural users, and other water users to inform them about issues of water use, quality, availability, and wastewater discharge. Information from these engagements is used in our greater enterprise risk management process.
Regulators	Relevant, always included	Water is the foundation of our food production operations, and we recognize water of suitable quality and volume is a finite resource. Success in this area requires a holistic approach to water stewardship beginning with the responsible use of this resource at our operations, including compliance with regulatory discharge permits and applicable regulations. Compliance with these laws and regulations, and the ability to comply with any modifications to these laws and regulations, is material to our business.
River basin management authorities	Relevant, not included	We are actively collaborating with local stakeholder groups and non-governmental organizations to develop best management practices for water use and conservation to ensure quality of water resources and longevity of watersheds and river basins in our areas of operation. For example, we continue to support efforts by The Nature Conservancy's Arkansas Chapter including a grant and volunteer support to help the chapter complete a significant stream bank restoration project in an oxbow of the Kings River, monitor sediment reduction, and survey a tributary and plan its restoration. The support also includes projects on the Elk River and enrolling conservation easements in Arkansas' Buffalo National River watershed. In the future we will be looking to work with River basin management authorities.
Statutory special interest groups at a local level	Relevant, always included	We are actively collaborating with local stakeholder groups and non-governmental organizations to develop best management practices for water use and conservation to ensure quality of water resources and longevity of watersheds and river basins in our areas of operation. We also engage with several trade associations on aspects of statutory interest.
Suppliers	Relevant, not included	Our 2018 Water Risk Assessment was focused based on the general area that the suppliers of our US-based operations procure from and indirectly included suppliers within this assessment.
Water utilities at a local level	Relevant, not included	Although water utilities and suppliers at a local level, we are actively collaborating with local stakeholder groups and non-governmental organizations to develop best management practices for water use and conservation to ensure quality of water resources and longevity of watersheds and river basins in our areas of operation. Our operations are in regular contact with local water utilities to manage water availability and quality, as well as water discharge requirements. In the future we will be looking to work with water utilities at a local level.
Other stakeholder, please specify	Not considered	Not applicable.

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.

In the late summer/early fall FY16 and into FY17, we launched an initiative to better understand sustainability related risks and opportunities within our business with the intent of establishing strategies and programs to strengthen our social and environmental performance, including performance related to water management. As part of this initiative as well as our deeper commitment to sustainable food production, we maintain a collaboration with the World Resources Institute (WRI) to become an industry leader by setting outcome-based as well as context-based water conservation targets for our operations and our supply chain. In the fall of 2018 we announced the results of this collaboration. Through the use of the WRI Aqueduct tool along with data from NorthStar, we evaluated assessed our exposure to water risk for our direct operations, within each Business Unit (Poultry, Beef, Pork, Prepared Foods). To accomplish this we modeled the water stress of raising animals procured for Tyson's processing facilities, exposure to water stress for raising animals (Poultry, Beef, Pork), water consumption of corn feed for raising animals, exposure to water stress in corn feed (Poultry, Beef, Pork), and nitrogen loading resulting from raising animals and corn feed (Poultry, Beef, Pork). We then went one step further to evaluate several facilities to identify opportunities for water usage efficiency. The results of the assessment were used to identify priority locations for water stewardship activities and set water risk reduction targets.

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?

Tyson Foods, Inc. does not have a comprehensive definition of "substantive impact," though, as a publicly-traded company, Tyson Foods, Inc. is subject to various regulatory and contractual standards related to the measurement, reporting, and disclosure of impacts to the company's business. Many of these standards are financial- and/or risk-based and are publicly available. We are committed to the responsible management of our water resources, and acknowledge that significant changes in water availability could have an impact on our company and supply chain. We recognize water of suitable quality and volume is a finite resource.

That's why, we maintain a goal to reduce the amount of water used to produce each pound of product by 12%, by the end of 2020, using Fiscal 2015 as the baseline year. In 2018 Tyson collaborated with the World Resources Institute (WRI) to conduct a Water Risk Assessment. As part of this risk assessment we conducted an analysis of water risk and scarcity across our direct operations and our supply chain in the United States using the WRI Aqueduct tool. Thirteen facilities were identified to be in high-risk areas. The results of this collaboration was Tyson to become an industry leader by setting outcome- based water conservation targets for our direct operations and our supply chain.

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	11	1-25	In 2018 Tyson collaborated with the World Resources Institute (WRI) to conduct a Water Risk Assessment. As part of this risk assessment we conducted an analysis of water risk and scarcity across our direct operations and our supply chain in the United States using the WRI Aqueduct tool. Eleven facilities were identified to be in high-risk areas.

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

United States of America

River basin

Mississippi River

Number of facilities exposed to water risk

11

% company-wide facilities this represents

1-25

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

Because of the size of the company and diversity of facilities, in the event of a water risk-related issue we can move production to another facility. This would alleviate any significant revenue impact.

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

United States of America

River basin

Other, please specify (Lower Mississippi)

Type of risk

Physical

Primary risk driver

Increased water stress

Primary potential impact

Increased operating costs

Company-specific description

We have worked with WRI to assess which production plants are considered to be in water stressed areas based on a combination of factors detailed in the WRI Aqueduct tool.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

0

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

Negligible

Primary response to risk

Establish site-specific targets

Description of response

We recognize water of suitable quality and volume is a finite resource. Our goal is to reduce the amount of water used to produce each pound of product by 12%, by the end of 2020, using Fiscal 2015 as the baseline year. As part of this initiative as well as our deeper commitment to sustainable food production, we announced in May 2017 a collaboration with the World Resources Institute (WRI) to become an industry leader by setting outcome-based water conservation targets for our operations and our supply chain. This work is currently underway.

Cost of response

0

Explanation of cost of response

Establishing any site specific targets will be done primarily using internal company resources.

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

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

Increased operating costs

Company-specific description

Tyson has worked with WRI to assess which upstream supply chains associated with water stresses impact the production plants identified in question 4.2.

Timeframe

>6 years

Magnitude of potential financial impact

Medium

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

0

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

Negligible

Primary response to risk

Establish supplier performance targets

Description of response

As part of establishing targets we will engage with other parties in the watershed to align Tyson's action with other parties needs and concerns surrounding water.

Cost of response

0

Explanation of cost of response

This will be done primarily using internal company resources.

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

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

Tyson Foods has a goal to reduce water usage in its direct U.S.-based operations by 12% by 2020, compared to a 2015 baseline. This goal is strategic as it encourages all facilities to reduce water usage which will improve water efficiency and deliver cost savings to the business. This proactive approach to water management could result in cost savings and improved water efficiency as well as strengthen our reputation with internal and external stakeholders.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

5600000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

A reduction in our intensity will ultimately save us on our gallons used assuming production is flat. The stated cost is computed based on well vs. city water usage.

Type of opportunity

Other

Primary water-related opportunity

Other, please specify (Supply chain efficiency)

Company-specific description & strategy to realize opportunity

We launched an initiative to better understand sustainability related risks and opportunities within our business with the intent of establishing strategies and programs to strengthen our social and environmental performance, including performance related to water management. As part of this initiative as well as our deeper commitment to sustainable food production, we collaborated with the World Resources Institute (WRI) to become an industry leader by setting outcome-based water conservation targets for our operations and our supply chain. We continue our conservation efforts with the Nature Conservancy's Arkansas Chapter. Over the last two years, including 2018, we have granted and provided volunteer support to help the chapter complete a significant stream bank restoration project in an oxbow of the Kings River, monitor sediment reduction, and survey a tributary and plan its restoration. The support also includes projects on the Elk River and enrolling conservation easements in Arkansas' Buffalo National River watershed. Tyson employees have also been actively engaged in this partnership by supporting various on-the-ground conservation projects such as tree plantings, stream clean-ups, and water awareness learning centers.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

0

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

No financial impacts identified as part of this collaboration, until specific opportunities are explored.

Type of opportunity

Markets

Primary water-related opportunity

Improved community relations

Company-specific description & strategy to realize opportunity

This opportunity is considered strategic for the company as increased operating costs through our supply chain is an identified risk for the company. We continue our conservation efforts with the Nature Conservancy's Arkansas Chapter. Over the last two years, including 2018, we have granted and provided volunteer support to help the chapter complete a significant stream bank restoration project in an oxbow of the Kings River, monitor sediment reduction, and survey a tributary and plan its restoration. The support also includes projects on the Elk River and enrolling conservation easements in Arkansas' Buffalo National River watershed. Tyson employees have also been actively engaged in this partnership by supporting various on-the-ground conservation projects such as tree plantings, stream clean-ups, and water awareness learning centers.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

0

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

No financial impacts identified as part of this collaboration, until specific opportunities are explored.

Type of opportunity

Resilience

Primary water-related opportunity

Resilience to future regulatory changes

Company-specific description & strategy to realize opportunity

While our compliance with water quality regulations isn't voluntary, as regulatory agencies continue to increase their focus on nutrient discharges we encounter more stringent limits via our wastewater discharge permits. Subsequently, we continue to apply technologies, strategies and processes to reduce nutrient levels in our surface water discharges. This creates cleaner water, and lessens pressure on existing water supply quality. In turn, this has potential to benefit our company by lowering our water supply risk.

Estimated timeframe for realization

4 to 6 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

0

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

No financial savings identified, rather only the cost of implementation which has not yet been quantified.

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)

Dexter

Country/Region

United States of America

River basin

Mississippi River

Latitude

36.753911

Longitude

-89.944257

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

1023

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

1023

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

Please select

Please explain

Our water withdrawal as compared to FY17 decreased by approximately 9%, Our water discharge also changed from the prior year, decreasing by 9%.

Facility reference number

Facility 2

Facility name (optional)

Seguin

Country/Region

United States of America

River basin

San Antonio River

Latitude

29.580243

Longitude

-97.982536

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

1048

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

1048

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

Please select

Please explain

Our water withdrawal as compared to FY17 decreased by approximately 29%. Our water discharge changed from the prior year, decreasing by 29%.

Facility reference number

Facility 3

Facility name (optional)

Glen Allen

Country/Region

United States of America

River basin

Other, please specify (Lower Chesapeake)

Latitude

37.698213

Longitude

-77.552268

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

911

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

911

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

Please select

Please explain

Our water withdrawal as compared to FY17 decreased by approximately 22%. Our water discharge changed from the prior year, decreasing by 22%.

Facility reference number

Facility 4

Facility name (optional)

Sedalia

Country/Region

United States of America

River basin

Mississippi River

Latitude

38.749939

Longitude

-93.322359

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

2615

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

2615

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

Please select

Please explain

Our water withdrawal as compared to FY17 decreased by approximately 4%, Our discharge changed from the prior year, decreasing by 4%.

Facility reference number

Facility 5

Facility name (optional)

Amarillo

Country/Region

United States of America

River basin

Mississippi River

Latitude

35.259306

Longitude

-101.648578

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

5071

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

3102

Comparison of discharges with previous reporting year

Much lower

Total water consumption at this facility (megaliters/year)

1969

Comparison of consumption with previous reporting year

Please select

Please explain

Our water withdrawal as compared to FY17 decreased by approximately 11%, Our discharge decreased from the prior year, decreasing by 55%.

Facility reference number

Facility 6

Facility name (optional)

Finney Co.

Country/Region

United States of America

River basin

Mississippi River

Latitude

37.999653

Longitude

-101.025075

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

5503

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

5608

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

550

Comparison of consumption with previous reporting year

Please select

Please explain

Our water withdrawal as compared to FY1 increased by approximately 4%, Our discharge remained unchanged from the prior year, increasing by 6%.

Facility reference number

Facility 7

Facility name (optional)

Lexington

Country/Region

United States of America

River basin

Mississippi River

Latitude

40.761057

Longitude

-99.736979

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

3433

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

3233

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

200

Comparison of consumption with previous reporting year

Please select

Please explain

Our water withdrawal as compared to FY17 decreased by approximately 2%, Our discharge remained unchanged from the prior year, increasing by 6%.

Facility reference number

Facility 8

Facility name (optional)

Madison + ham plant

Country/Region

United States of America

River basin

Mississippi River

Latitude

41.817595

Longitude

-97.467747

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

1594

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

1071

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

524

Comparison of consumption with previous reporting year

Please select

Please explain

Our water withdrawal as compared to FY17 decreased by approximately 2%, Our discharge remained unchanged from the prior year, decreasing by 18%.

Facility reference number

Facility 9

Facility name (optional)

Haltom City

Country/Region

United States of America

River basin

Trinity River (Texas)

Latitude

32.822204

Longitude

-97.289137

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

439

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

294

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

144

Comparison of consumption with previous reporting year

Please select

Please explain

Our water withdrawal as compared to FY17 increased by approximately 4%, Our discharge remained unchanged from the prior year, increasing by 2%.

Facility reference number

Facility 10

Facility name (optional)

North Richland hills

Country/Region

United States of America

River basin

Trinity River (Texas)

Latitude

32.851786

Longitude

-97.244871

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

480

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

358

Comparison of discharges with previous reporting year

Higher

Total water consumption at this facility (megaliters/year)

122

Comparison of consumption with previous reporting year

Please select

Please explain

Our water withdrawal as compared to FY17 increased by approximately 11%, Our discharge changed from the prior year, increasing by 65%. In 2018 the city replaced the meter, therefore it is reasonable to assume that this is attributable to the variance from last year as our water use remained unchanged.

Facility reference number

Facility 11

Facility name (optional)

Vernon

Country/Region

United States of America

River basin

Mississippi River

Latitude

34.162883

Longitude

-99.291096

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

288

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

221

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

67

Comparison of consumption with previous reporting year

Please select

Please explain

Our water withdrawal as compared to FY17 increased by approximately 10%, Our discharge remained unchanged from the prior year.

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

Facility reference number

Facility 1

Facility name

Dexter

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

1023

Comment

Facility reference number

Facility 2

Facility name

Seguin

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

1048

Comment

Facility reference number

Facility 3

Facility name

Glen Allen

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

911

Comment

Facility reference number

Facility 4

Facility name

Sedalia

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

2615

Comment

Facility reference number

Facility 5

Facility name

Amarillo

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

5071

Comment

Facility reference number

Facility 6

Facility name

Finney Co.

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

5503

Comment

Facility reference number

Facility 7

Facility name

Lexington

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

3433

Comment

Facility reference number

Facility 8

Facility name

Madison + ham plant

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

1594

Comment

Facility reference number

Facility 9

Facility name

Haltom City

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

439

Comment

Facility reference number

Facility 10

Facility name

North Richland hills

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

480

Comment

Facility reference number

Facility 11

Facility name

Vernon

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

288

Comment

The Vernon facility data is an estimate, as the actual data received does not appear to be accurate.

W5.1b

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

Facility reference number

Facility 1

Facility name

Dexter

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

1004

Comment

Facility reference number

Facility 2

Facility name

Seguin

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

933

Comment

Facility reference number

Facility 4

Facility name

Sedalia

Fresh surface water

2562

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 5

Facility name

Amarillo

Fresh surface water

0

Brackish surface water/Seawater

3448

Groundwater

0

Third party destinations

0

Comment

Irrigation

Facility reference number

Facility 6

Facility name

Finney Co.

Fresh surface water

0

Brackish surface water/Seawater

5995

Groundwater

0

Third party destinations

0

Comment

Irrigation

Facility reference number

Facility 7

Facility name

Lexington

Fresh surface water

3239

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 8

Facility name

Madison + ham plant

Fresh surface water

0

Brackish surface water/Seawater

1594

Groundwater

0

Third party destinations

0

Comment

Irrigation

Facility reference number

Facility 9

Facility name

Haltom City

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

439

Comment

Facility reference number

Facility 10

Facility name

North Richland hills

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

480

Comment

Facility reference number

Facility 11

Facility name

Vernon

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

280

Comment

Facility reference number

Facility 3

Facility name

Glen Allen

Fresh surface water

975

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

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

Dexter

% recycled or reused

None

Comparison with previous reporting year

Please select

Please explain

We do not currently track water/recycled/reused at facility-level.

Facility reference number

Facility 2

Facility name

Seguin

% recycled or reused

1-10%

Comparison with previous reporting year

Higher

Please explain

Estimated Savings of ~15,000,000 gallons from using recycled water for refrigeration condensers

Facility reference number

Facility 4

Facility name

Sedalia

% recycled or reused

None

Comparison with previous reporting year

Please select

Please explain

We do not currently track water/recycled/reused at facility-level.

Facility reference number

Facility 5

Facility name

Amarillo

% recycled or reused

1-10%

Comparison with previous reporting year

Please select

Please explain

At our Amarillo facility we recycle/reuse water for carcass washing.

Facility reference number

Facility 6

Facility name

Finney Co.

% recycled or reused

None

Comparison with previous reporting year

Please select

Please explain

We do not currently track water/recycled/reused at facility-level.

Facility reference number

Facility 7

Facility name

Lexington

% recycled or reused

Please select

Comparison with previous reporting year

<Not Applicable>

Please explain

We do not currently track water/recycled/reused at facility-level.

Facility reference number

Facility 8

Facility name

Madison + ham plant

% recycled or reused

Less than 1%

Comparison with previous reporting year

Please select

Please explain

At our Madison facility we recycle/reuse water for carcass washing.

Facility reference number

Facility 9

Facility name

Haltom City

% recycled or reused

None

Comparison with previous reporting year

Please select

Please explain

We do not currently track water/recycled/reused at facility-level.

Facility reference number

Facility 10

Facility name

North Richland hills

% recycled or reused

None

Comparison with previous reporting year

Please select

Please explain

We do not currently track water/recycled/reused at facility-level.

Facility reference number

Facility 11

Facility name

Vernon

% recycled or reused

None

Comparison with previous reporting year

Please select

Please explain

We do not currently track water/recycled/reused at facility-level.

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?

Our water withdrawals from ground water wells and local municipal water companies are metered to provide accurate usage amounts. We utilize a third party service to review and input the invoice, cost and volume of water purchased. From municipal sources.

Water withdrawals – volume by source

% verified

Not verified

What standard and methodology was used?

Our water withdrawals from ground water wells and local municipal water companies are metered to provide accurate usage amounts. We utilize a third party service to review and input the invoice, cost and volume of water purchased. From municipal sources.

Water withdrawals – quality

% verified

Not verified

What standard and methodology was used?

We do not have information for this other than what is provided by public water suppliers regarding the quality of the finished water. Information on purchased water quality is provided by the supplier. This data would typically come from a certified laboratory.

Water discharges – total volumes

% verified

Not verified

What standard and methodology was used?

For our plants with direct discharges, our discharge permits require accurate flow measurement of effluent. This is done with a meter calibrated by a third party. In addition, the governing agency that issues the discharge permit physically visits the discharge site to confirm that an accurate measuring device is being used, and to review the flow data gathered by that device.

Water discharges – volume by destination

% verified

Not verified

What standard and methodology was used?

For our plants with direct discharges, our discharge permits require accurate flow measurement of effluent. This is done with a meter calibrated by a third party. In addition, the governing agency that issues the discharge permit physically visits the discharge site to confirm that an accurate measuring device is being used, and to review the flow data gathered by that device.

Water discharges – volume by treatment method

% verified

Not verified

What standard and methodology was used?

For our plants with direct discharges, our discharge permits require accurate flow measurement of effluent. This is done with a meter calibrated by a third party. In addition, the governing agency that issues the discharge permit physically visits the discharge site to confirm that an accurate measuring device is being used, and to review the flow data gathered by that device.

Water discharge quality – quality by standard effluent parameters

% verified

Not verified

What standard and methodology was used?

For our plants with direct discharges, our discharge permits require accurate flow measurement of effluent. This is done with a meter calibrated by a third party. In addition, the governing agency that issues the discharge permit physically visits the discharge site to confirm that an accurate measuring device is being used, and to review the flow data gathered by that device.

Water discharge quality – temperature

% verified

Not verified

What standard and methodology was used?

Two Tyson locations are required by their regulatory permits to monitor waste water discharge temperatures. We do not monitor waste water discharge temperatures at our other facilities. This data is gathered and reported in accordance with the facility discharge permit conditions. In addition, the governing agency that issues the discharge permit physically visits the discharge site to confirm that accurate parameter measuring is being done.

Water consumption – total volume

% verified

Not verified

What standard and methodology was used?

Our water withdrawals from ground water wells and local municipal water companies are metered to provide accurate usage amounts. We utilize a third party service to review and input the invoice, cost and volume of water purchased. From municipal sources. By measuring incoming and outgoing flows we can derive the estimated water consumption for a site.

Water recycled/reused

% verified

Not verified

What standard and methodology was used?

At six plant locations we meter or otherwise measure water recycling and reuse. This includes wastewater irrigation and internal recycling. There are multiple other sites within Tyson that reuse water, but it is not measured and there not capable of being quantified.

W6. Governance

W6.1

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

No, but we plan to develop one within the next 2 years

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
Board-level committee Governance and Nominating Committee of the Board of Directors	Our approach to sustainability is multidimensional, and we maintain an integrated strategy that allows us to drive improvements in all areas of sustainability. This strategy is supported by our President and CEO, with oversight from our Board of Directors. Our Governance and Nominating Committee of our Board of Directors was selected due to its regular interactions with our Executive Vice President of Alternative Proteins and Chief Sustainability Officer regarding water-related issues, who then reports to our President and CEO and shares regular progress updates on water-related issues with the Board.

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	Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding strategy	Our approach to sustainability is multidimensional, and we maintain an integrated strategy that allows us to drive improvements in all areas of sustainability. This strategy is supported by our President and CEO, with oversight from our Board of Directors. Our Executive Vice President of Alternative Proteins and Chief Sustainability Officer, who reports to our President and CEO and regularly interacts with the company's Board of Directors, shares regular progress updates with the Governance and Nominating Committee of our Board of Directors.

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 Sustainability Officer (CSO)

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

The Environmental Services and Sustainable Food Strategy teams prepare and submit monthly reports to the President and CEO that includes information on progress with environmental and other sustainability initiatives (e.g., progress on continuous water monitoring projects, etc.). Our President and CEO, who is a member of the board, then shares the report with the board. Additionally, in May 2017, we appointed our first Chief Sustainability Officer, who is a direct report to our President and CEO. Our Chief Sustainability Officer has oversight of the functions associated with our Environmental Services and Sustainable Food Strategy teams.

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	Chief Sustainability Officer (CSO) Other, please specify (Chief Environmental Services and Sustainable Food Strategy Teams) <i>Environmental Services and Sustainable Food Strategy Teams</i>	Reduction of product water intensity	Our Senior Vice President, Sustainability & Chief Environmental Officer, who reports to our Chief Sustainability Officer and our Sr Director of Sustainable Food Strategy, who reports to our Senior Vice President, Sustainability & Chief Environmental Officer, are offered monetary incentives if the company achieves its 12% water reduction target by 2020. In addition, the teams reporting to these leaders as well as other C-Suite officers through facility level management teams, are also offered monetary incentives if the company reaches its water reduction target.
Recognition (non-monetary)	No one is entitled to these incentives	<Not Applicable>	No one is entitled to 'Recognition (non-monetary)' incentives.
Other non-monetary reward	No one is entitled to these incentives	<Not Applicable>	No one is entitled to 'Other non-monetary reward' 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

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?

Water touches everything we do at Tyson Foods — from the irrigation needed to grow the grain that feeds poultry and livestock to our processing plants where we use water to process animals, cook prepared foods and clean our facilities. Water is a finite resource that must be used and managed responsibly from farm to finished product. Food safety and quality is our top priority and water is essential to producing safe food. We aim to balance responsible water stewardship with protecting the quality and safety of our products. For example, we have engaged and collaborated with both the US Department of Agriculture and the US Environmental Protection Agency to identify food processing solutions that protect food safety while conserving water. Tyson engages in trade associations, such as the North American Meat Institute, on water stewardship opportunities.

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)

Tyson 2018 Sustainability Report.pdf

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	5-10	Water touches everything we do at Tyson Foods — from the irrigation needed to grow the grain that feeds poultry and livestock to our processing plants where we use water to process animals, cook prepared foods and clean our facilities. We also recognize natural disasters, fire, bioterrorism, pandemic or extreme weather, including droughts, floods, excessive cold or heat, hurricanes or other storms, could impair the health or growth of livestock or interfere with our operations due to power outages, fuel shortages, decrease in availability of water, or damage to our production and processing. In 2018 Tyson collaborated with the World Resources Institute (WRI) to conduct a Water Risk Assessment. As part of this risk assessment we conducted an analysis of water risk and scarcity across our direct operations and our supply chain in the United States using the WRI Aqueduct tool. Thirteen facilities were identified to be in high-risk areas. The results of the assessment are being used to facilitate and guide our long term strategic business plan to decrease our use of water in water-stressed locations and heighten our supply chain engagement promoting water reduction efforts through our Land Stewardship Program partnership with the Environmental Defense Fund.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	In 2018 Tyson collaborated with the World Resources Institute (WRI) to conduct a Water Risk Assessment. As part of this risk assessment we conducted an analysis of water risk and scarcity across our direct operations and our supply chain in the United States using the WRI Aqueduct tool. Thirteen facilities were identified to be in high-risk areas. One strategy to address this is our partnership with the Environmental Defense Fund and creation of our Land Stewardship Program. The goal of this program is to work with farmers to improve environmental practices across two million acres of corn production by 2020. The program aims to encourage grain farmers to adopt more efficient fertilizer practices, and take additional measures to reduce water runoff and soil loss.
Financial planning	Yes, water-related issues are integrated	5-10	Natural disasters, fire, bioterrorism, pandemic or extreme weather, including droughts, floods, excessive cold or heat, hurricanes or other storms, could impair the health or growth of livestock or interfere with our operations due to power outages, fuel shortages, decrease in availability of water, damage to our production and processing facilities or disruption of transportation channels or unfavorably impact the demand for, or our consumers' ability to purchase our products, among other things. Any of these factors could have an adverse effect on our financial results Utilizing the results of our 2018 WRI Aqueduct Assessment we are currently evaluating water procurement strategies to best mitigate our water quality and strategy risks at the facility level.

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)

665.7

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

-100

Water-related OPEX (+/- % change)

487.3

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

-100

Please explain

Water projects likely are not going to receive significant capital in FY19.

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	We recognize the importance of climate change and have deployed initiatives to reduce emissions throughout our company. Sustainability is integral to our business and defined as part of our publicly disclosed strategy. Additionally, we collaborated with World Resources Institute to set and announce a 30% reduction by 2030 greenhouse gas reduction target for our scope 1, 2, and 3 emissions. We also committed to support improved environmental practices on 2 million acres of corn production by the end of 2020. This is the largest-ever land stewardship commitment by a U.S. protein company and is expected to lower the greenhouse gas emissions generated by our supply chain.

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	2DS	Water touches everything we do at Tyson Foods — from the irrigation needed to grow the grain that feeds poultry and livestock to our processing plants where we use water to process animals, cook prepared foods and clean our facilities. We also recognize natural disasters, fire, bioterrorism, pandemic or extreme weather, including droughts, floods, excessive cold or heat, hurricanes or other storms, could impair the health or growth of livestock or interfere with our operations due to power outages, fuel shortages, decrease in availability of water, or damage to our production and processing.	We are currently collaborating with the World Resources Institute (WRI) to establish context-based goals that will mitigate risks related to water stress.

W7.4

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

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

We recognize that the base price paid for water does not necessarily reflect its true value when risk is factored in. Several publicly available models have been reviewed but we have not found any that we feel provide an estimation method that reflects what we consider to be a reasonable reflection of risks and true cost. We intend to continue to pursue this area.

W8. Targets

W8.1

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

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Business level specific targets and/or goals Activity level specific targets and/or goals Site/facility specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	To ensure we were creating an achievable, cost-effective target, we worked with a water treatment and process improvements supply partner to conduct multiple plant assessments and review historical water use data. We utilize a bottom-up approach; every site has their own specific goal. These plant-level goals are not all the same; they depend on what is reasonably achievable for the site. The plant-level goals are aggregated to the activity level (i.e. Beef Production). Those goals are further aggregated to the business level (i.e. Fresh Meats). Finally, all business-level goals are aggregated into corporate-level goals. Additionally, in 2018 Tyson assessed our exposure to water risk for our direct operations, for each Business Unit (Poultry, Beef, Pork, Prepared Foods, International). We modeled the water consumption of Raising Animals procured for Tyson’s processing facilities, exposure to water stress for Raising Animals (Poultry, Beef, Pork), water consumption of Corn Feed for Raising Animals, exposure to water stress in Corn Feed (Poultry, Beef, Pork), and Nitrogen loading resulting from Raising Animals and Corn Feed (Poultry, Beef, Pork). The results of the assessment indicated that corn feed has the highest exposure to water stress (55%), followed by direct operations (82%) and raising animals (81%). These results will be used to identify priority locations for water stewardship activities, setting water risk reduction targets and goals, and monitoring progress towards goals.

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

Product water intensity

Level

Company-wide

Primary motivation

Water stewardship

Description of target

Water is a key component of food production since it's essential to keeping food safe for consumers. We understand the important balance between protecting product quality and conserving water, a natural resource. In FY16, we announced a public commitment to reducing water use in our direct operations by 12 percent by the end of 2020, using 2015 as the baseline year. In FY18, we did achieve a 1,274 megaliter decrease in water withdrawal as compared to FY17. Our intensity per pound of finished product also decreased by 3.59% during the same timeframe.

Quantitative metric

% reduction per unit of production

Baseline year

2015

Start year

2016

Target year

2020

% achieved

2.96

Please explain

We have implemented significant changes within our network including water reuse/recycle projects, changes to poultry processing, and multiple behavior changes related to water savings. We anticipate continued action in FY19 and FY20 to reduce our water intensity.

W8.1b

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

Goal

Promotion of sustainable agriculture practices

Level

Country level

Motivation

Reduced environmental impact

Description of goal

Our two-million-acre commitment is working with farmers to improve environmental practices on two million acres of row crop corn production by 2020. The goal will promote sustainable agriculture practices, including water security, by encouraging grain farmers to adopt more efficient fertilizer practices, and take additional measures to reduce water runoff and soil loss. Although Tyson does not own grain farms we buy corn and soybeans to feed our poultry. We also buy cattle and hogs from farmers and ranchers who use grain to feed their animals. This goal is expected to help reduce our supply chain greenhouse gas emissions in addition to promoting decreased water consumption and contamination. Tyson is implementing the goal through a partnership with the Environmental Defense Fund and an initial pilot utilizing the cloud-based agricultural technologies from MyFarms and Farmers Business Network to enroll farmers in the initial sustainable agriculture project.

Baseline year

2018

Start year

2017

End year

2018

Progress

As this goal was set during this reporting period, we are currently working to recruit and confirm the farms that will be participating. We will regularly report our progress on the number of acres that enroll in the pilots.

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 wastewater treatment

Description of linkage/tradeoff

Land application of 1.48 Billion gallons of wastewater effluent decreased the amount of additional wastewater treatment necessary to meet drinking water standards, and in turn also decreased the amount of freshwater necessary by 1.48 Billion gallons to irrigate crops.

Policy or action

Tyson has been actively engaged in increasing water recycling as applicable. In FY2018 we increased recycling to six facilities, allowing for 10% of our total water (3.12 Billion gallons) usage from recycled/reused water. While these activities were being conducted in FY17, our measured impact has increased due to implementation of metering at the facilities.

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, we do not currently verify any other water information reported in our CDP disclosure

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	Chief Sustainability Officer	Chief Sustainability Officer (CSO)

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)].

No

SW. Supply chain module

SW0.1

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

	Annual revenue
Row 1	40052000000

SW0.2

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

Yes

SW0.2a

(SW0.2a) Please share your ISIN in the table below.

	ISIN country code	ISIN numeric identifier (including single check digit)
Row 1	US	9024941034

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?

This is confidential

SW1.2

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

Yes, for all facilities

SW1.2a

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

Identifier	Latitude	Longitude	Comment
Dexter	36.753911	-89.944257	
Seguin	29.580243	-97.982536	
Glen Allen	37.698213	-77.552268	
Sedalia	38.749939	-93.322359	
Amarillo	35.259306	-101.648578	
Finney Co.	37.999653	-101.025075	
Lexington	40.761057	-99.736979	
Madison + ham plant	41.817595	-97.467747	
Haltom City	32.822204	-97.289137	
North Richland hills	32.851786	-97.244871	
Vernon	34.162883	-99.291096	

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 Customers	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms