

W0. Introduction

W0.1

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

At Darling Ingredients, we create sustainable food, feed and fuel ingredient solutions. We take the meat by-products from our animal-based diets, and process them to reclaim valuable and essential bio-nutrients, fats, oils, proteins, meals and more that are used daily in personal, commercial, and industrial products. Our natural and sustainable ingredients are marketed internationally to the pharmaceutical, food, animal feed, pet food, biofuel, fertilizer, sports nutrition and cosmetic industries.

Our Feed and Pet Food solutions, by re-purposing organic bio-nutrient residuals, have grown into one of the world's leading suppliers of natural, sustainable feed ingredients. Additionally, the safe processing of organic meat co-products and animal mortalities has proven to be the most secure and efficient way of handling these materials, as compared to other methods which can harm the environment through the release of methane gases and pathogens.

What we do and how we do it helps protect the world's food chain from farm to table. Through our bio-security standards at our processing facilities, our customers can be assured that our food ingredients are fully traceable and our products and processes are fully compliant with food safety regulations. Our industry is often referred to as "the gatekeeper," keeping our food chain safe from harmful materials. By processing unconsumed meat co-products into usable ingredients rather than disposing of them in landfills or compost piles, our facilities prevent more greenhouse gases from being released into the air rather than what they add to it during operations. By re-purposing this material, we also help protect our land and groundwater from pathogens that occur during nature's decomposition process. And, by ensuring our feed ingredients are traceable and safe, we protect the livestock that start this food cycle in motion. Through our secure operations, we are able to provide the world's food manufacturers and supply chains with a range of safe and tested food ingredients and products that are sustainable and natural, and economically and ecologically viable. We're the world's leading supplier of gelatin and collagen peptides. We provide global food and meat manufacturers with safe, fully traceable sausage casings and meat co-products. We contribute to innovative, healthy food concepts through our natural proteins and other natural dietary supplements.

Darling Ingredients has taken the lead in developing new opportunities in renewable energy. Whether from re-purposed animal fats, organic residuals or the oil and grease we collect from restaurants, our energy solutions are one more contribution towards a paradigm shift in the world's long-term energy balance. Our many years of experience in acquiring organic co-products and residuals and converting them into innovative, high-value products have positioned us as a global leader in renewable energy development. We were the first in the USA to pioneer the commercial production of biodiesel utilizing animal fats and used cooking oils. In 2005, we became Canada's first producer of biodiesel from animal fats and cooking oils. In 2013, together with Valero Energy Corporation, we constructed North America's largest facility to convert animal fats, used cooking oils and distiller oils into renewable diesel. In Europe, we are leading the way with innovative biofuel and renewable energy solutions.

At Darling Ingredients, we have over a century of experience in making the world a greener place. As an innovative developer of organic fertilizers, we take 'going green' quite literally, re-purposing industrial residuals and meat co-products into nutritional, life-sustaining solutions for horticultural gardens, organic farming, healthy sports turf and more. Using our fertilizer and soil enrichment solutions result in higher yields on conventional and organic farms, as well as greener golf courses, sports turf and lawns. We can also help to improve phosphate balances in agriculture. Developing these resources from residuals also means we make operations cleaner, smoother and more sustainable for a variety of industries. Our methods for storing, collecting and re-purposing these residuals demonstrate how our company serves as a leading steward of our planet's natural resources.

Commercial bakeries and snack manufacturers throughout North America rely on us for the full-service management of their residuals. Bakery Feeds we re-purpose them into a sustainable, quality ingredient for feed rations. Our services unburden the bakery and snack industry, add value to the feed industry, and improve the sustainability performance of both.

Darling is unique in that we produce water from our raw materials and introduce this water back into the environment. Often this water produced is more than our withdrawal. Therefore our discharge is much larger than our withdrawal.

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	January 1 2018	December 31 2018

W0.3

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

Argentina
Australia
Belgium
Brazil
Canada
China
Czechia
France
Germany
Italy
Japan
Malaysia
Netherlands
Poland
Portugal
Spain
United Kingdom of Great Britain and Northern Ireland
United States of America

W0.4

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

USD

W0.5

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

Companies, entities or groups over which operational control is exercised

W0.6

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

No

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	Important	Important	Good quality water is essential throughout the meat value chain to ensure food safety and quality. In our role of processing food industry by-products, we remove water from our raw materials and discharge that water back into the environment. As a result our water discharges are greater than our water consumption values - we are a net producer of water. All of our water discharges are done under various regulatory frameworks.
Sufficient amounts of recycled, brackish and/or produced water available for use	Neutral	Neutral	In many instances we are able to recycle water within our processing systems. Recycled water use within our facilities is important to minimizing our fresh water usage and will become increasingly more important; however, reuse of treated process water in our processes is also limited due to food quality regulations.

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
Other, please specify (Animal Fats and Proteins)	61-80	Produced	Darling produces animal fats and proteins from food processing industry by-products and converts them into sustainable food, feed and fuel ingredients.
Other, please specify (Used Cooking Oils)	10-20	Sourced	Darling sources used cooking oils from the food processing industry and converts them into sustainable food, feed and fuel ingredients.

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	The majority of water withdrawals are monitored and measured; however, there are some facilities where withdrawals are estimated.
Water withdrawals – volumes from water stressed areas	Not monitored	Darling intends to assess water stress for our facilities in the near future.
Water withdrawals – volumes by source	76-99	Darling differentiates between third party water supply sources and groundwater supply sources.
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	To ensure high levels of food safety, our facilities that produce animal feed ingredients annually monitor the water quality periodically.
Water discharges – total volumes	76-99	All of our water discharges are done under various regulatory frameworks which can include measuring the volume of discharge.
Water discharges – volumes by destination	76-99	All of our water discharges are done under various regulatory frameworks which can include measuring the volume of discharge.
Water discharges – volumes by treatment method	76-99	All of our water discharges are done under various regulatory frameworks which can include monitoring the volume of discharge.
Water discharge quality – by standard effluent parameters	76-99	All of our water discharges are done under various regulatory frameworks which include a variety of parameters to be monitored.
Water discharge quality – temperature	76-99	All of our water discharges are done under various regulatory frameworks which can include monitoring temperature.
Water consumption – total volume	76-99	Our water consumption is monitored for internal operations data.
Water recycled/reused	Not monitored	Darling currently recycles/reuses water at a majority of facilities including land application, cooling, and housekeeping; however, we currently do not monitor volumes in most cases.
The provision of fully-functioning, safely managed WASH services to all workers	Not monitored	

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	33900	About the same	Reporting year 2017 was 33,240 megaliters/year.
Total discharges	40220	About the same	Reporting year 2017 was 39,240 megaliters/year.
Total consumption	0	About the same	This number is actually -6,320. The system will not take a negative number. Our consumption is negative since we generate water from our raw material. Reporting year 2017 was -6,000 megaliters/year. These waters are discharged back into the water environment or third party.

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
Other commodities from W-FB1.1a, please specify (Animal fats and proteins)	No, we do not have this data and have no plans to obtain it	No, we do not have this data and have no plans to obtain it	Darling produces animal fats and proteins from food processing industry by-products and converts them into sustainable food, feed and fuel ingredients.
Other commodities from W-FB1.1a, please specify (Use cooking oils)	No, we do not have this data and have no plans to obtain it	No, we do not have this data and have no plans to obtain it	Darling sources used cooking oils from the food processing industry and converts them into sustainable food, feed and fuel ingredients.

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	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	Darling differentiates between third party water supply sources and groundwater supply sources but not surface water sources at this time.
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	Darling does not withdrawal brackish surface water/seawater.
Groundwater – renewable	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	Darling differentiates between third party water supply sources and groundwater supply sources but not renewable at this time.
Groundwater – non-renewable	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	Darling differentiates between third party water supply sources and groundwater supply sources but not non-renewable at this time.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	
Third party sources	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	Darling differentiates between third party water supply sources and groundwater supply sources in North America only at this time.

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 but volume unknown	<Not Applicable>	<Not Applicable>	Darling discharges to a variety of destinations including land application, POTWs, surface waters, and injection wells. Currently we do not differentiate volumes by destination.
Brackish surface water/seawater	Not relevant	<Not Applicable>	<Not Applicable>	
Groundwater	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	Darling discharges to a variety of destinations including land application, POTWs, surface waters, and injection wells. Currently we do not differentiate volumes by destination.
Third-party destinations	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	Darling discharges to a variety of destinations including land application, POTWs, surface waters, and injection wells. Currently we do not differentiate volumes by destination.

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
Other commodities from W-FB1.1a, please specify (Animal fats and proteins)	No, not currently but we intend to collect/calculate this data within the next two years	No, not currently but we intend to collect/calculate this data within the next two years	Darling produces animal fats and proteins from food processing industry by-products and converts them into sustainable food, feed and fuel ingredients.
Other commodities from W-FB1.1a, please specify (Used cooking oils)	No, not currently but we intend to collect/calculate this data within the next two years	No, not currently but we intend to collect/calculate this data within the next two years	Darling sources used cooking oils from the food processing industry and converts them into sustainable food, feed and fuel ingredients.

W1.4

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

No, not currently but we intend to within two years

W1.4d

(W1.4d) Why do you not engage with any stages of your value chain on water-related issues and what are your plans?

	Primary reason	Please explain
Row 1	Important but not an immediate business priority	Darling engages suppliers on water content of raw material, but not water usage within upstream facilities.

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?
Don't know

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 quality of process water for our food grade products must meet stringent standards and, in general, meet potable water standards. We test all sites in accordance with local requirements. Our process wastewater is generally high in biological oxygen demand (BOD) as well as total suspended solids (TSS) which, if discharged without treatment, may result in lower oxygen levels available for aquatic organisms to thrive. Analysis of these parameters and others are conducted in accordance with local permit requirements. Some of our facilities conduct pre-treatment with discharge to a municipal wastewater treatment plant for additional processing prior to discharge. Others operate biological wastewater treatment systems to reduce solids and oxygen demand prior to direct discharge to a receiving water body. Other locations provide nutrients and water for the growing of crops. Discharge of wastewater, whether directly to a stream or through a municipal system, is highly regulated with limits on the amount of pollutants that can be discharged and extensive sampling programs to ensure compliance.

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 animal by-products

Activity/value chain stage
Manufacturing – direct operations

Description of water pollutant and potential impacts

Pollutants of concern related to our industry include oil and grease, BOD, TSS, and pH. Our facilities mitigate most issues by recycling and treating process water prior to discharge.

Management procedures
Waste water management

Please explain

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?
No, water risks-related are not assessed

W3.3e

(W3.3e) Why does your organization not undertake a water-related risk assessment?

	Primary reason	Please explain
Row 1	We are planning to introduce a risk assessment process within the next two years	

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, only within our direct operations

W4.1a

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

Depending upon the location of our facilities and those of our suppliers, our operations could be subject to weather impacts, including the physical impacts of climate changes, changes in rainfall patterns, water shortages, changing sea levels, changing storm patterns and intensities and changing temperature levels. Physical damage, flooding, excessive snowfall or drought resulting from changing climate patterns could adversely impact our costs and business operations, the availability and costs of our raw materials, and the supply and demand for our end products. These effects could be material to our results of operations, liquidity or capital resources. The quality and volume of the finished products that we are able to produce could be negatively impacted by unseasonable or severe weather or unexpected declines in the volume of raw materials available during holidays, which in turn could have a material adverse effect on our business, results of operations and financial condition. In addition, severe weather events may also impact our ability to collect or process raw materials or to transport finished products.

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	21	1-25	These facilities were determined by analysis of flood plain insurance requirements.

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

12

% 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

Unknown

Comment

Country/Region

United States of America

River basin

Colorado River (Pacific Ocean)

Number of facilities exposed to water risk

2

% 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

Unknown

Comment

Country/Region

United States of America

River basin
Hudson River

Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

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

Unknown

Comment

Country/Region

United States of America

River basin

Suwannee River

Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

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

Unknown

Comment

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

Mississippi River

Type of risk

Physical

Primary risk driver

Flooding

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

With operations dispersed across 100+ facilities the overall impact is limited. Often raw materials can be transferred to unaffected facilities until disruption has been corrected.

Timeframe

Unknown

Magnitude of potential impact

Low

Likelihood

Very unlikely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

With operations dispersed across 100+ facilities the overall impact is limited. Often raw materials can be transferred to unaffected facilities until disruption has been corrected.

Primary response to risk

Develop flood emergency plans

Description of response

Plan for diversion of materials to other facilities for processing.

Cost of response

200000

Explanation of cost of response

Cost is related to increase in logistics expense and cleanup associated with facility.

Country/Region

United States of America

River basin

Colorado River (Pacific Ocean)

Type of risk

Physical

Primary risk driver

Flooding

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

With operations dispersed across 100+ facilities the overall impact is limited. Often raw materials can be transferred to unaffected facilities until disruption has been corrected.

Timeframe

Unknown

Magnitude of potential impact

Low

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

With operations dispersed across 100+ facilities the overall impact is limited. Often raw materials can be transferred to unaffected facilities until disruption has been corrected.

Primary response to risk

Develop flood emergency plans

Description of response

Plan for diversion of materials to other facilities for processing.

Cost of response

200000

Explanation of cost of response

Cost is related to increase in logistics expense and cleanup associated with facility.

Country/Region

United States of America

River basin

Hudson River

Type of risk

Physical

Primary risk driver

Flooding

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

With operations dispersed across 100+ facilities the overall impact is limited. Often raw materials can be transferred to unaffected facilities until disruption has been corrected.

Timeframe

Unknown

Magnitude of potential impact

Low

Likelihood

Very unlikely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

200000

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

With operations dispersed across 100+ facilities the overall impact is limited. Often raw materials can be transferred to unaffected facilities until disruption has been corrected.

Primary response to risk

Develop flood emergency plans

Description of response

Plan for diversion of materials to other facilities for processing.

Cost of response

200000

Explanation of cost of response

Cost is related to increase in logistics expense and cleanup associated with facility.

Country/Region

United States of America

River basin

Suwannee River

Type of risk

Physical

Primary risk driver

Flooding

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

With operations dispersed across 100+ facilities the overall impact is limited. Often raw materials can be transferred to unaffected facilities until disruption has been corrected.

Timeframe

Unknown

Magnitude of potential impact

Low

Likelihood

Very unlikely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

200000

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

With operations dispersed across 100+ facilities the overall impact is limited. Often raw materials can be transferred to unaffected facilities until disruption has been corrected.

Primary response to risk

Develop flood emergency plans

Description of response

Plan for diversion of materials to other facilities for processing.

Cost of response

200000

Explanation of cost of response

Cost is related to increase in logistics expense and cleanup associated with facility.

W4.2c

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

	Primary reason	Please explain
Row 1	Evaluation in progress	We have a very diversified supply chain and the likelihood of significant disruption across the entire supply chain is small.

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?

No

W4.3b

(W4.3b) Why does your organization not consider itself to have water-related opportunities?

	Primary reason	Please explain
Row 1	Evaluation in progress	Because we produce a large amount of water from our raw materials we could potentially treat that water for in-house use and eliminate water withdrawal at many facilities. This opportunity is a function of emerging technologies but is hindered by the relative low cost of water.

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)

Jackson

Country/Region

United States of America

River basin

Mississippi River

Latitude

32.092927

Longitude

90.152222

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)

196

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

443

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

Comparison of consumption with previous reporting year

About the same

Please explain

Our water withdrawal, consumption and discharge are typically pretty consistent.

Facility reference number

Facility 2

Facility name (optional)

Newberry

Country/Region

United States of America

River basin

Mississippi River

Latitude

38.543577

Longitude

87.005959

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)

63

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

197

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-134

Comparison of consumption with previous reporting year

About the same

Please explain

Our water withdrawal, consumption and discharge are typically pretty consistent.

Facility reference number

Facility 3

Facility name (optional)

Union City

Country/Region

United States of America

River basin

Mississippi River

Latitude

36.223465

Longitude

89.002279

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)

72

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

202

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-130

Comparison of consumption with previous reporting year

About the same

Please explain

Our water withdrawal, consumption and discharge are typically pretty consistent.

Facility reference number

Facility 4

Facility name (optional)

Russellville

Country/Region

United States of America

River basin

Mississippi River

Latitude

36.542211

Longitude

86.522819

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)

59

Comparison of withdrawals with previous reporting year

Much higher

Total water discharges at this facility (megaliters/year)

151

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-92

Comparison of consumption with previous reporting year

About the same

Please explain

Our water withdrawal, consumption and discharge are typically pretty consistent.

Facility reference number

Facility 5

Facility name (optional)

Wahoo

Country/Region

United States of America

River basin

Please select

Latitude

41.133294

Longitude

96.32497

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)

42

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

89

Comparison of discharges with previous reporting year

Higher

Total water consumption at this facility (megaliters/year)

-47

Comparison of consumption with previous reporting year

Higher

Please explain

There was a drop in 2017 due to construction.

Facility reference number

Facility 6

Facility name (optional)

Pocahontas

Country/Region

United States of America

River basin

Mississippi River

Latitude

36.124994

Longitude

90.571617

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)

32

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

115

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-83

Comparison of consumption with previous reporting year

About the same

Please explain

Our water withdrawal, consumption and discharge are typically pretty consistent.

Facility reference number

Facility 7

Facility name (optional)

Tulsa

Country/Region

United States of America

River basin

Mississippi River

Latitude

36.22197

Longitude

95.494648

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)

40

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

75

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-35

Comparison of consumption with previous reporting year

About the same

Please explain

Our water withdrawal, consumption and discharge are typically pretty consistent.

Facility reference number

Facility 8

Facility name (optional)

Watts (Bakery)

Country/Region

United States of America

River basin

Mississippi River

Latitude

36.061982

Longitude

94.341486

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)

6

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

32

Comparison of discharges with previous reporting year

Higher

Total water consumption at this facility (megaliters/year)

-26

Comparison of consumption with previous reporting year

Higher

Please explain

There was an increase due to increased production in this facility.

Facility reference number

Facility 9

Facility name (optional)

Indianapolis

Country/Region

United States of America

River basin

Mississippi River

Latitude

39.434855

Longitude

86.101689

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)

12

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

13

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-1

Comparison of consumption with previous reporting year

About the same

Please explain

Our water withdrawal, consumption and discharge are typically pretty consistent.

Facility reference number

Facility 10

Facility name (optional)

Blue Island

Country/Region

United States of America

River basin

Mississippi River

Latitude

41.392982

Longitude

87.414969

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)

3

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

3

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

About the same

Please explain

Our water withdrawal, consumption and discharge are typically pretty consistent.

Facility reference number

Facility 12

Facility name (optional)

Henderson

Country/Region

United States of America

River basin

Mississippi River

Latitude

37.500654

Longitude

87.34287

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)

4

Comparison of withdrawals with previous reporting year

Much lower

Total water discharges at this facility (megaliters/year)

23

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

-19

Comparison of consumption with previous reporting year

About the same

Please explain

Our water withdrawal, consumption and discharge are typically pretty consistent.

Facility reference number

Facility 13

Facility name (optional)

Denver

Country/Region

United States of America

River basin

Colorado River (Pacific Ocean)

Latitude

39.480078

Longitude

104.574114

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)

75

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

117

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-42

Comparison of consumption with previous reporting year

About the same

Please explain

Our water withdrawal, consumption and discharge are typically pretty consistent.

Facility reference number

Facility 14

Facility name (optional)

Denver Pepco

Country/Region

United States of America

River basin

Colorado River (Pacific Ocean)

Latitude

39.480581

Longitude

104.57395

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)

15

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

17

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-1

Comparison of consumption with previous reporting year

About the same

Please explain

Our water withdrawal, consumption and discharge are typically pretty consistent.

Facility reference number

Facility 15

Facility name (optional)

Newark

Country/Region

United States of America

River basin

Hudson River

Latitude

40.425153

Longitude

74.073035

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)

166

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

248

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-82

Comparison of consumption with previous reporting year

About the same

Please explain

Our water withdrawal, consumption and discharge are typically pretty consistent.

Facility reference number

Facility 16

Facility name (optional)

Hampton

Country/Region

United States of America

River basin

Suwannee River

Latitude

29.52422

Longitude

82.07564

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)

153

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

211

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

-58

Comparison of consumption with previous reporting year

About the same

Please explain

Our water withdrawal, consumption and discharge are typically pretty consistent.

W5.1a

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

Facility reference number

Facility 1

Facility name

Jackson

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

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

196.4

Comment

Facility reference number

Facility 2

Facility name

Newberry

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

62.5

Comment

Facility reference number

Facility 3

Facility name

Union 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

72

Comment

Facility reference number

Facility 4

Facility name

Russellville

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

59.9

Comment

Facility reference number

Facility 5

Facility name

Wahoo

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

0

Brackish surface water/seawater

0

Groundwater - renewable

42.2

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 6

Facility name

Pocahontas

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

0

Brackish surface water/seawater

0

Groundwater - renewable

31.5

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 7

Facility name

Tulsa

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

39.7

Comment

Facility reference number

Facility 8

Facility name

Watts (Bakery)

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

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

6

Comment

Facility reference number

Facility 9

Facility name

Indianapolis

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

11.6

Comment

Facility reference number

Facility 10

Facility name

Blue Island

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

3

Comment

Facility reference number

Facility 12

Facility name

Henderson

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

4.5

Comment

Facility reference number

Facility 13

Facility name

Denver

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

75

Comment

Facility reference number

Facility 14

Facility name

Denver Pepco

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

15

Comment

Facility reference number

Facility 15

Facility name

Newark

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

166

Comment

Facility reference number

Facility 16

Facility name

Hampton

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

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

154

Produced/Entrained water

0

Third party sources

0

Comment

W5.1b

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

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

Please select

Facility name

% recycled or reused

Not monitored

Comparison with previous reporting year

<Not Applicable>

Please explain

We recycle large amounts of water in many of our facilities but do not typically measure the volume so are not able to answer this question at this time.

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?

Water withdrawals – volume by source

% verified

Not verified

What standard and methodology was used?

Water withdrawals – quality

% verified

Not verified

What standard and methodology was used?

Water discharges – total volumes

% verified

Not verified

What standard and methodology was used?

Water discharges – volume by destination

% verified

Not verified

What standard and methodology was used?

Water discharges – volume by treatment method

% verified

Not verified

What standard and methodology was used?

Water discharge quality – quality by standard effluent parameters

% verified

Not verified

What standard and methodology was used?

Water discharge quality – temperature

% verified

Not verified

What standard and methodology was used?

Water consumption – total volume

% verified

Not verified

What standard and methodology was used?

Water recycled/reused

% verified

Not verified

What standard and methodology was used?

W6. Governance

W6.1

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

No

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	Darling Ingredients' Global Sustainability Committee brings management together from diverse areas (both geographic and departmental) to integrate sustainability practices on a global scale. The GSC reviews metrics and strategies that can be used to measure and communicate improvement under the Corporate Social Responsibility platform and reports to the CEO. When appropriate, the CEO, who is Chairman of the Board, presents the reports to 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	Sporadic - as important matters arise	Monitoring implementation and performance Overseeing major capital expenditures Reviewing and guiding annual budgets Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities	Darling Ingredients' Global Sustainability Committee brings management together from diverse areas (both geographic and departmental) to integrate sustainability practices on a global scale. The GSC reviews metrics and strategies that can be used to measure and communicate improvement under the Corporate Social Responsibility platform and, when required, reports to the CEO. When appropriate, the CEO, who is Chairman of the Board, presents the reports to the board.

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)

Other committee, please specify (Global Sustainability Committee)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

As important matters arise

Please explain

Darling Ingredients' Global Sustainability Committee brings management together from diverse areas (both geographic and departmental) to integrate sustainability practices on a global scale. The GSC meets routinely to review metrics and strategies that can be used to measure and communicate improvement under the Corporate Social Responsibility platforms to the CEO who is Chairman of the Board. The GSC prepares and submits reports to the CEO, including information on progress with environmental and other sustainability initiatives (e.g., progress on upgrades of facility wastewater treatment systems, etc.). The CEO then shares the report with the board as needed.

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?

No, and we do not plan to introduce them in the next two years

W6.5

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

Yes, direct engagement with policy makers

Yes, trade associations

Yes, other

W6.5a

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

By nature of what Darling does, Darling generates a large volume of water that must be treated appropriately prior to discharge to surface waters, land irrigation, or to a further treatment facility. As Darling is committed to limiting the impacts of our operations to the environment, Darling intimately works with the local U.S Environmental Protection Agency delegated primacy (e.g. city environmental agencies and state environmental agencies) policy makers to not only educate the policy makers on our sustainable processes but also develop standards to which the entire industry be held accountable.

W6.6

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

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

W7. Business strategy

W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	5-10	By nature of what Darling does, Darling produces a large volume of water that must be treated appropriately prior to discharge. However, Darling is researching options for this water as it contains valuable components (for example, Ammonia) that could be harvested in certain manners to develop an alternative business strategy. Additionally, during capital funding and/or new facility building, water-related issues are factored into the design of the facility. Although this is not the core of what Darling does, Darling understands that the processing will lead to water generation that must be dealt with. Thus, Darling considers this financial impact into its business strategy, especially during talks of mergers/acquisitions and new builds.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	Darling will continue to track a number of items concerning water-related impacts. One of these areas will focus on water consumption. Darling understands that water is a valuable, often times scarce, resource. Thus, Darling is cognizant of water use at each facility. In fact, some facilities have developed Water Conservation Plans in order to minimize the amount of water used at the facility. Darling hopes to build more a culture where water and its potential impacts are a backbone of how we operate.
Financial planning	Yes, water-related issues are integrated	5-10	Darling considers the financial impact of water-related impacts on a case by case basis for each facility. This will continue to be a focus of Darling during capital budgeting process.

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)

0

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

5

Water-related OPEX (+/- % change)

5

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

5

Please explain

These are estimates of CAPEX and OPEX percentages that are water-related. Many of our large projects have a water related aspect that is difficult to quantify. However, Darling assumes the total CAPEX of water-related projects to be less than 15% of overall capital. Darling believes that water-related capital funding will continue to grow, primarily to recycle and return treated wastewaters to our processes or to the environment as water is a valuable resource.

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	No, but we anticipate doing so within the next two years	Darling wishes to continue integrating climate-related challenges and scenarios into its business strategies. However, at this time, Darling has not developed any goals and metrics when discussing business strategy. Darling hopes to develop methods to better consider climate-related scenarios when it comes to its business strategy.

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

Darling understands that the base price for water does not necessarily reflect the true value of water when all factors are considered. Thus, Darling plans on reviewing methods to better estimate the cost of water.

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	Our company sets no targets or goals	<Not Applicable>	<Not Applicable>

W8.1c

(W8.1c) Why do you not have water target(s) or goal(s) and what are your plans to develop these in the future?

	Primary reason	Please explain
Row 1	We are planning to introduce a target or goal within the next two years	Darling is in the process of collecting benchmark data. Once data is compiled Darling plans to submit goals within 2 years. Good quality water is essential throughout the meat value chain to ensure food safety and quality. In our role of processing food industry by-products, we remove water from our raw materials and discharge that water back into the environment. As a result our water discharges are greater than our water consumption values - we are a net producer of water. All of our water discharges are done under various regulatory frameworks. Currently Darling's water withdrawals are done under various regulatory frameworks or monitored by internal operations. In many instances we are able to recycle water within our processing systems. To ensure high levels of food safety, however, we do not utilize low quality supplies of water in our facilities.

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 wastewater effluent decreases the amount of additional wastewater treatment necessary to meet drinking water standards, and in turn also decreases the amount of freshwater necessary to irrigate crops.

Policy or action

In our role of processing food industry by-products, we remove water from raw materials and discharge that water back into the environment. As a result our water discharges are greater than our water consumption values - we are a net producer of water. All of our water discharges are done under various regulatory frameworks; however, several of the processing facilities directed the wastewater to onsite wastewater treatment systems (WWTSs) including subsequent discharge via land application fields. The effluent wastewater stream from the WWTS is used to irrigate various field crops for harvest. Land application is the preferred method of discharge during the spring, summer, and fall seasons where appropriate.

W10. Verification

W10.1

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

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

W11. Sign off

W-FI

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

W11.1

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

	Job title	Corresponding job category
Row 1	Director Environmental Affairs and Sustainability	Environment/Sustainability manager

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

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
I am submitting my response	Non-public	Investors

Please confirm below

I have read and accept the applicable Terms