

# Husky Energy Inc. - Water 2018

## W0. Introduction

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### W0.1

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

Husky Energy is a Canadian-based integrated energy company. It is based in Calgary, Alberta, Canada, and its common shares are publicly traded on the Toronto Stock Exchange under the symbol HSE. The Company operates in Canada, the United States and the Asia Pacific region with Upstream and Downstream business segments.

#### W-CH0.1a

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

Bulk organic chemicals

#### W-OG0.1a

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

Upstream

Downstream

### W0.2

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#### (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 2017	December 31 2017

### W0.3

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

Canada

United States of America

### W0.4

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

CAD

### W0.5

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**(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**

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

Yes

**W0.6a**

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**(W0.6a) Please report the exclusions.**

Exclusion	Please explain
Asia Pacific Operations	Water data for this region is not currently consolidated at the corporate level. Water withdrawals and discharges at Husky-operated Asia Pacific operations are expected to be immaterial to the Company's overall water metrics. Husky did not drill any wells in Asia Pacific in 2017.
Retail Operations	Retail operations are a mix of corporate and franchised locations. Water withdrawals and discharges at these facilities are expected to be immaterial to the Company's overall water metrics.
Rainwater, domestic use	These sources are not consistently tracked and are therefore not included for the purpose of consistency. Domestic and rainwater consumption are expected to be immaterial to overall water consumption.

## 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	Good quality freshwater is an integral part of Husky's onshore operations and facilities. If the existing water supply is not sufficient in terms of quantity and quality, future project economics could be affected. Upstream, the Company's largest use of freshwater is at its thermal projects in Saskatchewan. The largest downstream use of freshwater is at the Lima Refinery and the Husky Lloydminster Upgrader. Freshwater dependency is expected to decrease in the future for the Lima Refinery, remain steady at the Husky Lloydminster Upgrader, and increase at the Saskatchewan thermal projects. Freshwater is also important to Husky's indirect operations. The Company accounts for freshwater used by contractors conducting indirect drilling and completion operations – these sources are important to executing exploration and development. Freshwater volumes for drilling and completions are expected to increase over the next several years as Husky executes its development plan.
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital	Important	Recycled, brackish, and produced water is used in a variety of processes at Husky including offshore and onshore production. The largest user of recycled industrial water is the Sunrise Energy Project, of produced water are Sunrise and the Tucker Thermal Project, and of brackish water are the offshore Atlantic operations and the onshore Tucker Thermal Project. Non-freshwater dependency is expected to remain consistent for future Husky operations, except at the Lima Refinery where it is expected to increase when a new water recycle process is brought online. These projects rely on recycled, brackish, and produced water; if these water sources are not available, future project economics could be affected. Contractors conducting indirect completions operations use recycled produced water and flowback water to supplement water source needs for hydraulic fracturing. This need is expected to increase over the next few years as Husky executes its development plan.

### 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	Husky uses its Environmental Performance Reporting System (EPRS) to organize and store water withdrawal volumes for compliance, corporate reporting and to inform water management. Water withdrawal volumes for upstream, downstream, and chemical sector processes are collected via SCADA interface or operator input to corporate data systems on at minimum a daily basis and are stored in the EPRS system on a monthly basis. Water

	% of sites/facilities/operations	Please explain
		withdrawal volumes for drilling, completion, and construction activities are tracked at the site level on a daily job basis, and input to corporate data systems by site representatives.
Water withdrawals – volumes from water stressed areas	76-99	Husky uses its Environmental Performance Reporting System (EPRS) to organize and store water withdrawal volumes, in both water stressed and non-water stressed areas, for compliance, corporate reporting and to inform water management. Water withdrawal volumes for upstream, downstream, and chemical sector processes are collected via SCADA interface or operator input to corporate data systems on at minimum a daily basis and are stored in the EPRS system on a monthly basis. Water withdrawal volumes for drilling, completion, and construction activities are tracked at the site level on a daily job basis, and input to corporate data systems by site representatives.
Water withdrawals – volumes by source	76-99	The source of water is tracked for each water withdrawal recorded, at the same frequency. If a water source changes, methods are in place to update automated data systems with the correct water source. Where water volumes are input manually, the water source is required with each volume entry.
Produced water associated with your metals & mining sector activities - total volumes	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes	100%	Produced water volumes are collected in Husky's corporate data system. Volumes are collected via SCADA interface or operator input, on at minimum a daily basis.
Water withdrawals quality	1-25	Water quality is measured at the water source selection stage of a project to guide water management decisions, regulatory requirements, and process design. Following that, source water quality is monitored on an ongoing basis if there is a process need, or a regulatory need, with varying frequency; for regulatory requirements this is often annually.
Water discharges – total volumes	76-99	Husky uses its Environmental Performance Reporting System (EPRS) to organize and store water discharge volumes for compliance, corporate reporting and to inform water management. Water discharge volumes for upstream and downstream processes are collected via SCADA interface or operator input to corporate data systems on at minimum a daily basis, and stored in EPRS on a monthly basis. Water discharge volumes for drilling, completion, and construction activities are tracked at the site level on a daily job basis, and input to corporate data systems by site representatives.
Water discharges – volumes by destination	76-99	The source of water is tracked for each water withdrawal recorded, at the same frequency. Where water discharge volumes are input manually, the discharge destination is required with each volume entry.
Water discharges – volumes by treatment method	100%	Husky has some large facilities that discharge water into regulated water bodies, and this discharged water requires treatment. These are all tracked at the facilities, on at minimum a daily basis and are stored in EPRS on a

	% of sites/facilities/operations	Please explain
		monthly basis. The remaining water discharges are to deep well disposal, and have minimal to no treatment following oil separation.
Water discharge quality – by standard effluent parameters	76-99	Husky has several facilities that discharge water to regulated surface water. These facilities manage water data quality and frequency according to their regulatory requirements.
Water discharge quality – temperature	76-99	Husky has several facilities that discharge water to regulated water bodies. These facilities manage water data quality parameter measurements and frequency according to their regulatory requirements.
Water consumption – total volume	76-99	Water data for withdrawal and discharge volumes are tracked in Husky data systems on a minimally daily basis and are stored in EPRS on a monthly basis. These are used to determine water consumption.
Water recycled/reused	76-99	Husky tracks use of recycled water at thermal production facilities, conventional oil facilities, and in drilling and completion operations. Recycled water volumes for upstream and downstream processes are collected via SCADA interface to corporate data systems on at minimum a daily basis and are stored monthly in EPRS. Water recycle volumes for drilling, completion, and construction activities are tracked at the site level on a daily job basis, and input to corporate data systems by site representatives.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Husky provides Water, Sanitation, and Hygiene (WASH) services for all workers, in accordance with Occupational Health and Safety requirements in all of its operating areas.

## 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	129565	Lower	This volume primarily decreased due to divestment of some conventional upstream assets where produced water volumes were significant. This volume is expected to increase slightly from this value in the next few years based on Husky's current development plan, which includes new thermal facilities in Saskatchewan that require water.
Total discharges	121289	Lower	This volume primarily decreased due to divestment of some conventional upstream assets where disposal volumes were significant. This volume is expected to increase slightly from this value in the next few years based on Husky's current development plan, which includes new thermal facilities in Saskatchewan that discharge water.

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total consumption	8276	Much lower	The calculation has been changed since the 2017 submission to align with revised CDP definitions. Taking into consideration the changes, the total consumption is lower than 2017, mainly due to divestment of some conventional upstream assets. This volume is expected to remain steady in the next few years, as increases in withdrawals will be offset by equivalent increases in discharges.

### W-OG1.2c

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

	Volume (megaliters /year)	Comparison with previous reporting year %	Please explain
Total withdrawals - Upstream	117050	Lower	Primarily due to divestment of some upstream conventional assets.
Total discharges – Upstream	114454	Lower	Primarily due to divestment of some upstream conventional assets.
Total consumption – Upstream	2595	Much Lower	The calculation has been changed since the 2017 submission, to align with revised CDP definitions. Taking into consideration the changes, the total consumption is lower than 2017, mainly due to divestment of some conventional upstream assets.
Total withdrawals - Downstream	11426	Higher	There was an increase in the Lima Refinery throughput resulting in an increase in withdrawals. This is within expected operation ranges.
Total discharges – Downstream	6835	About the same	There were no major changes in downstream processes that would impact water discharges.
Total consumption – Downstream	4591	Much higher	Increase in consumption corresponds to an increase in throughput at the Lima Refinery.
Total withdrawals – Chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>

	Volume (megaliters /year)	Comparison with previous reporting year %	Please explain
Total discharges – Chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total consumption – Chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total withdrawals – Other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total discharges – Other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total consumption – Other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>

#### 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	7.4	This is our first year of measurement	WRI Aqueduct	Assessed using the WRI Aqueduct Physical Risk Quantity map. Husky defined “stressed areas” as areas with medium to extremely high physical risk quantity on this map. Facilities with water withdrawals are assessed to highlight risks. This is Husky's first year of measurement against these criteria; previous assessments were based primarily on local regulatory designations of water quantity risk, and resulted in a lower value.

#### 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	27571	Higher	Husky withdrawals from fresh surface water bodies are critical to operations, and highly regulated. In addition to meeting regulatory compliance, measurement of these volumes informs Husky's water management decisions. Volumes remained approximately the same, as there were no significant changes in major projects using surface waters in 2017. This volume is expected to increase slightly in the next few years based on Husky's plan to start up new thermal plants in Saskatchewan.
Brackish surface water/seawater	Relevant	14266	Much lower	Husky water withdrawals from the sea are critical to offshore operations, where produced water is limited and there is no other accessible water source. Measurement of this volume informs ongoing offshore water management. There was a decrease in the amount of seawater withdrawn at Husky's offshore operations, due to a normal variation in equipment cooling requirements. This volume is expected to increase in several years when the West White Rose comes on production.
Groundwater – renewable	Relevant	5022	About the same	Husky withdrawals from groundwater are critical to operations. For example, the Tucker Thermal Project sources brackish water from a deep groundwater aquifer. In addition to meeting regulatory compliance, measurement of these volumes informs Husky's water management decisions. The overall volume of groundwater withdrawal remained largely the same. This volume is not expected to change significantly in the next few years based on Husky's current development plan. Groundwater is obtained from aquifers at depths ranging from 4 m to 650 m, with varying water quality from fresh to saline. Due to the variation in definition of renewable versus non-renewable groundwater sources, all groundwater withdrawals are reported as renewable.
Groundwater – non-renewable	Relevant	0	About the same	Groundwater is obtained from aquifers at depths ranging from 4 meters to 650 meters, with varying water quality from fresh to saline. Due to the variation in definition of renewable versus non-renewable groundwater sources, all groundwater withdrawals are reported as renewable.
Produced water	Relevant	82258	Lower	Produced water is inherent in the extraction of hydrocarbons, and its measurement enables regulatory compliance and informs water management. For example, produced water is important to Husky's operations at the Sunrise Energy Project, Tucker Thermal Project, and at the Wainwright Waterflood project, all which use produced water for oil production. This value is lower primarily due to a decrease in produced water withdrawals resulting from divestment of some conventional assets. This volume is expected to increase slightly in the next few years based on Husky's current development plan.
Third party sources	Relevant	448	Much lower	Third-party sources are important to Husky's operations, and measurement of the volume supports water management. This value represents wastewater obtained from another operator for use at the Sunrise Energy Project. There was a decreased water need in 2017 due to increased use of internal



	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
				produced water at Sunrise. This volume is expected to increase slightly over the next few years based on the current development plan.

## 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	4441	About the same	Discharge to fresh surface water is highly regulated. Volumes are tracked for regulatory compliance and to inform water management. The largest volume of discharge to surface water for Husky occurs at the Lima Refinery. Volumes remained approximately the same in 2017, as there were no significant changes to facilities that discharge to freshwater. This volume may increase slightly in 2018 due to the acquisition of a new refinery that has some discharge to fresh surface water, and decrease in subsequent years when the water recycle process comes on line at the Lima refinery.
Brackish surface water/seawater	Relevant	12246	Much lower	Some discharge to seawater volumes are regulated for Husky's offshore Atlantic operations. Volumes are tracked for regulatory compliance and to inform water management decisions. There was a decrease in the amount of seawater withdrawn and discharged at Husky's Offshore operations, due to a normal variation in equipment cooling requirements. This volume is expected to increase in several years when the West White Rose comes on production.
Groundwater	Relevant	104602	Lower	Measurement of water volumes disposed to deep groundwater are regulated. Disposal to deep groundwater formations are critical to many upstream projects, including the Saskatchewan thermal projects, Sunrise Energy Project, and the Tucker Thermal Project. Volumes are tracked for regulatory compliance and to inform water management, in particular water reuse opportunities. The decrease in 2017 is primarily due to decrease in disposal volumes resulting from divestment of some upstream conventional assets. This volume is expected to increase slightly in the next few years based on the current development plan.
Third-party destinations	Not relevant	<Not Applicable>	<Not Applicable>	A small portion of Husky's upstream operational wastewater is sent to a third party for deep well disposal. This volume is not accounted for and is offset by small amounts of wastewater Husky receives from other operators at its disposal wells, which are included in overall discharge volumes.

## 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	26-50	This is our first year of measurement	Husky did not previously report this metric, as it is new to CDP and there is no comparison to the previous reporting year. Husky's recycling of produced water at two of its thermal operations results in reduced use of fresh groundwater, industrial wastewater, and brackish groundwater. Husky's recycling of flowback water at hydraulic fracturing sites reduces the use of fresh surface and groundwater. Husky's recycling of blowdown water in several thermal facilities reduces the use of fresh surface water. Husky anticipates this value will remain steady for the next few years, based on the current growth development plan, which will be offset by the commissioning of new water recycle processes at a major facility.

**W-OG1.2j**

**(W-OG1.2j) What proportion of your total water use do you recycle or reuse in your operations associated with the oil & gas sector?**

	% recycled and reused	Comparison with previous reporting year	Please explain
Upstream	26-50	This is our first year of measurement	Husky did not previously calculate this metric, as it is new to CDP and there is no comparison to the previous reporting year. Husky's recycling of produced water at two of its thermal operations results in a reduction in both fresh groundwater, industrial wastewater, and brackish groundwater use. Husky's recycling of flowback water at hydraulic fracturing sites reduces the use of fresh surface and groundwater. Husky's recycling of blowdown water in several thermal facilities reduces the use of fresh surface water. Husky anticipates this value will remain steady or increase slightly over the next few years, based on the current growth development plan with new thermal projects in Saskatchewan.
Downstream	Less than 1%	This is our first year of measurement	Husky did not previously calculate this metric, as it is new to CDP and there is no comparison to the previous reporting year. Husky does not consistently track internal water recycling such as steam condensate recycle at its downstream facilities. Husky anticipates this value to increase over the next few years as a new process is commissioned at the Lima Refinery, which incorporates significant water recycle.
Chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>

### W-CH1.3

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

Yes

#### W-CH1.3a

(W-CH1.3a) For your top five products by production weight/volume, provide the following water intensity information associated with your activities in the chemical sector.

Product type	Product name	Water intensity value	Numerator: Water aspect	Denominator: Unit of production	Comparison with previous reporting year	Please explain
Bulk organic chemicals	Fuel Ethanol	3.7	Freshwater withdrawals	m <sup>3</sup>	About the same	The intensity of water withdrawal to fuel ethanol produced is relatively consistent year to year and did not change in 2017. The water intensity value is used to confirm water process efficiency. The intensity is represented as m <sup>3</sup> water withdrawn/m <sup>3</sup> fuel ethanol produced.

### W-OG1.3

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

Yes

#### W-OG1.3a

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

Business division	Water intensity value	Numerator: water aspect	Denominator: unit of production	Comparison with previous reporting year	Please explain
Upstream	1.03	Total freshwater withdrawals	Other, please specify (m <sup>3</sup> of oil equivalent production)	This is our first year of measurement	While Husky collects the information for this metric, this is the first year calculating it in this manner for CDP. Husky uses fresh water intensity metrics on a project basis to assess fresh water efficiency and to inform water management. This is also tracked and assessed annually through the Husky Operational Integrity Management System (HOIMS) Environmental Reporting and Action Planning initiative and through the Water Management Critical Competency Network. The intensity is represented as m <sup>3</sup> water withdrawn/ m <sup>3</sup> oil equivalent production.

Business division	Water intensity value	Numerator: water aspect	Denominator: unit of production	Comparison with previous reporting year	Please explain
Downstream	0.55	Total freshwater withdrawals	Other, please specify (m <sup>3</sup> of crude oil throughput)	This is our first year of measurement	While Husky collects the information for this metric, this is the first year calculating it in this manner for CDP. Husky uses fresh water intensity metrics on a facility basis to assess fresh water efficiency. This value is typically steady at Husky's four refineries and upgrader, except when major process changes are made that impact water use. The metric is assessed annually through the Water Management Critical Competency Network. The intensity is represented as m <sup>3</sup> water withdrawn/ m <sup>3</sup> oil throughput.

#### W1.4

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

Yes, our suppliers

Yes, our customers or other value chain partners

#### W1.4a

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

###### Row 1

###### % of suppliers by number

1-25%

###### % of total procurement spend

Less than 1%

###### Rationale for this coverage

As of August 2017, Husky launched a supplier pre-qualification and qualification questionnaire that requires 100% of new suppliers to submit company sustainability information for Husky's review. In this questionnaire, suppliers are asked whether they disclose their water-related information specifically to CDP. They are also asked if they comply with all applicable environmental laws and regulations, which include water-related regulations within their jurisdiction.

###### Impact of the engagement and measures of success

Impact: Suppliers become aware that Husky is interested in their water management disclosure related to their operations. Measure of success: New suppliers completing the questionnaire.

###### Comment

#### W1.4b

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

Type of engagement	Details of engagement	% of suppliers by number	% of total procurement spend	Rationale for the coverage of your engagement	Impact of the engagement and measures of success	Comment
Onboarding & compliance	Requirement to adhere to our code of conduct regarding water stewardship and management	1-25	1-25	Husky focuses on supply chain aspects that have the most immediate potential to impact water, such as hauling services that convey fluids to and from Husky facilities.	Impact: Suppliers become aware that Husky has environmental stewardship expectations. Measure of success: Reduced incidents impacting water that are related to hauling.	

**W1.4c**

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

Husky undertakes several water related initiatives endorsed through the Corporate Water Standard such as contributing to joint industry value chain water management initiatives and water research. For example, at the Sunrise Energy Project, Husky collaborates with Suncor and Imperial Oil on water recycling processes. Specifically, Husky uses process affected water (PAW) from one operator's tailings ponds, and basal McMurray groundwater that is in contact with bitumen mined by the operation of an adjacent oil sands mining project. This initiative demonstrates excellent collaboration with nearby operators. The agreements that have been put in place are mutually beneficial to the operators involved. This project won the Husky CEO Award of Excellence for Corporate Responsibility in 2013. Husky prioritizes water stewardship engagement with value chain partners where there is a major risk posed by exposure to regulatory changes, water quality and water quantity issues. Success of these engagements is measured by meeting regulatory obligations, disposal limitations and stakeholder commitments.

## W2. Business impacts

### W2.1

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

Yes

### W2.1a

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

Country	River basin	Type of impact driver	Primary impact driver	Primary impact	Description of impact	Primary response	Total financial impact	Description of response
Canada	Other, please specify (South Saskatchewan River Basin)	Physical	Pollution incident	Reduction or disruption in production capacity	In March 2017, light oil was released in a Husky owned and operated pipeline in Alberta; as a result, groundwater and a dry creek bed were impacted. Husky isolated the pipeline and immediately commenced delineation and remediation efforts. The impact was substantive in cost, based on the Husky Corporate Risk Matrix.	Engage with regulators/policymakers	17000000	Regulatory authorities and potential local stakeholders were immediately notified when evidence of the leak was identified. The pipeline was shut in to prevent further leakage, and a delineation and remediation program began immediately to address impacted soil, groundwater, and the dry creek bed. Actions were taken to protect surface water from impacts. The pipeline was repaired and evaluated in detail prior to recommissioning. The value represent approximate response costs recorded to the end of 2017.
Canada	Other, please specify (North Saskatchewan River)	Physical	Inadequate infrastructure	Reduction or disruption in production capacity	Technical challenges in water sourcing through river infiltration wells and associated transport network resulted in slight reductions to production at several Saskatchewan thermal facilities.	Infrastructure maintenance	42000000	The financial impact is represented as gross revenue. This is based on estimated maximum production shortfall due to water deliverability challenges throughout 2017. The estimated production shortfall was multiplied by the gross revenue per barrel for Saskatchewan thermal projects. More focus was put on

Country	River basin	Type of impact driver	Primary impact driver	Primary impact	Description of impact	Primary response	Total financial impact	Description of response
								water infiltration well infrastructure, including revised maintenance procedures and performance assessment.
United States of America	Other, please specify (Maumee River)	Regulatory	Regulation of discharge quality/volumes	Fines, penalties or enforcement orders	Lima Refinery was assessed a total of \$1,500 in fines for three water quality discharge exceedances in 2017. These penalties were for instances where discharged water did not meet quality standards. The cost is not substantive.	Greater due diligence	1500	Husky has conducted increased efforts to ensure discharge water meets quality standards. The cost represents the fine itself.

## W2.2

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

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

## W2.2a

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

Total number of fines	Total value of fines	% of total facilities/operations associated	Number of fines compared to previous reporting year	Comment
3	1500	0.04	Lower	Three fines were associated with Lima Refinery (considered as one facility). This was significantly lower than the previous year, when a fine of \$54,000 was levied for water discharge criteria exceedance instances occurring in the previous five years. Based on the Corporate Responsibility facility definition, there are a total of 2,585 facilities across the Company, ranging from single well batteries to large complex refineries. As a result, this single facility comprises a very small fraction of total facilities.

## W3. Procedures

### W-CH3.1

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

Potential water pollutants associated with Husky's Ethanol Plants are identified through processes, standards, regulations, and monitoring programs. Chemicals on site are identified and labelled in accordance with the Workplace Hazardous Materials Information System (WHMIS) and Transportation of Dangerous Goods (TDG) requirements, and chemical materials sheets are available on site to advise of response actions. Husky participates in the Government of Canada's Chemicals Management Plan, which provides an inventory of chemicals used in operations.

### W-CH3.1a

#### (W-CH3.1a) Describe how your organization minimizes adverse impacts of potential water pollutants on water ecosystems or human health. Report up to

Potential water pollutant	Value chain stage	Description of water pollutant and potential impacts	Management procedures	Please explain
Nitrogen	Direct operations	Lloydminster Ethanol Plant: Nitrogen and phosphorous in the water discharged from the Lloydminster Ethanol Plant are valuable nutrients for agricultural purposes. This water is spread on the land adjacent to the Lloydminster Ethanol Plant and is used as fertilizer. There is a potential detriment to soil quality when excessive concentrations are present. Minnedosa Ethanol Plant: No potential impacts	Other, please specify (Monitoring)	Soil quality monitoring
Phosphorous	Direct operations	Lloydminster Ethanol Plant: Nitrogen and phosphorous in the water discharged from the Lloydminster Ethanol Plant are valuable nutrients for agricultural purposes. This water is spread on the land adjacent to the Lloydminster Ethanol Plant and is used as fertilizer. There is a potential detriment to soil quality when excessive concentrations are present. Minnedosa Ethanol Plant: No potential impacts	Other, please specify (Monitoring)	Soil quality monitoring

### W-OG3.1

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

Potential water pollutants associated with Husky's exploration, development, production, transportation, upgrading, and refining (hydrocarbons, produced water, drilling fluids, completion fluids) are identified through processes, standards, regulations, and monitoring programs. Chemicals on site are identified and labelled in accordance with the Workplace Hazardous Materials Information System (WHMIS) and Transportation of Dangerous Goods (TDG) requirements, and chemical materials sheets are available on site to advise response actions in case of any incidents. Husky participates in the Government of Canada's Chemicals Management Plan, which provides an inventory of chemicals used in operations. Husky is also required to identify and report hydraulic fracturing chemicals to regulatory databases. Husky conducts groundwater monitoring and sampling programs at facilities across its operations, including thermal oil



production facilities, gas plants, refineries, pipeline terminals, and the upgrader. The major chemicals assessed in these programs are similar across operations (hydrocarbons, salts, metals), with some local differences (for example, naphthenic acids are monitored at the Sunrise Energy Project and Tucker Thermal Project, while these are not contaminants of concern at the refineries).

Surface or shallow groundwater may be impacted by releases of these chemicals; potential ecosystem and human health impacts depend on the receptors present and risks are assessed in greater detail in the event of a release. Most chemicals have regulatory guidelines for concentrations in surface water and groundwater based on toxicological studies; monitoring results are assessed in the context of these guidelines.

**W-OG3.1a**

**(W-OG3.1a) For each business division of your organization, describe how your organization minimizes the adverse impacts on water ecosystems or human health of potential water pollutants associated with your oil & gas sector activities.**

Potential water pollutant	Business division	Description of water pollutant and potential impacts	Management procedures	Please explain
Hydrocarbons	Upstream Downstream	Petroleum hydrocarbons ranging from C1 to C60+. Petroleum hydrocarbons are handled at all of Husky's upstream and downstream facilities. Accidental release of hydrocarbons into surface or groundwater during handling in upstream and downstream operations could result in dissolved or non-aqueous phase hydrocarbons in water. These have the potential to negatively impact aquatic species and/or human health, if the chemical is present at concentrations above guideline values, and if receptors are present (aquatic species, human interaction with the waterbody, drinking water intakes, etc.). The magnitude of these impacts can be minor and long term at low concentrations, to major and immediate at high concentrations. Metals and trace elements in hydrocarbons. Dissolved metals and trace elements in water have the potential to negatively impact aquatic species and/or human health if present at concentrations above guideline values.	Compliance with effluent quality standards Measures to prevent spillage, leaching and leakages Emergency preparedness Other, please specify	In addition to those listed above, management procedures include secondary containment of storage vessels; operational procedures to ensure the integrity of hydrocarbon handling and storage equipment; spill response procedures, reporting, and preparedness to prevent or mitigate impacts to water bodies; regulated and unregulated environmental monitoring programs at facilities; the Husky environmental auditing program; standard operating procedures developed under the Husky Operational Integrity Management System (HOIMS); well servicing standard operating procedures, and the job/task safety permitting program. These initiatives are endorsed under the Husky Operational Integrity Management System (HOIMS). Specifically, HOIMS Element 8 outlines the governance, assurance and processes around planning and responsible operations to ensure stringent and consistent environmental performance, including water-related issues. Impacts are measured and evaluated through the HOIMS Environmental Reporting and Action Planning Process, and use of the HuskySafe incident reporting and tracking system.
Other, please specify	Upstream	Produced water contains high levels of salts, metals and trace elements. Water with levels of salts exceeding guidelines can negatively impact vegetation, with impacts	Measures to prevent spillage,	In addition to those listed above, management procedures include secondary containment of storage vessels; operational procedures to ensure the integrity of produced

Potential water pollutant	Business division	Description of water pollutant and potential impacts	Management procedures	Please explain
(Produced Water)		ranging from minor to major based on the concentration of salts present. Dissolved metals and trace elements in produced water have the potential to negatively impact aquatic species and/or human health, if present at concentrations above guideline values, with impacts ranging from minor to major based on the concentration of dissolved metals and trace elements present. Produced water is mostly handled by upstream operations, in which it is produced with hydrocarbons, and then separated and disposed of before refining or upgrading. There is a risk of release during handling of the produced water in upstream operations.	leaching and leakages Emergency preparedness Other, please specify	water handling and storage equipment; spill response procedures, reporting, and preparedness to prevent or mitigate impacts to water bodies; regulated and unregulated environmental monitoring programs at facilities; the Husky environmental auditing program; standard operating procedures developed under the Husky Operational Integrity Management System (HOIMS); well servicing standard operating procedures, and the job/task safety permitting program. Many of these initiatives are ultimately endorsed under the Husky Operational Integrity Management System (HOIMS). Specifically, HOIMS Element 8 outlines the governance, assurance and processes around planning and responsible operations to ensure stringent and consistent environmental performance, including water-related issues. Impacts are measured and evaluated through the HOIMS Environmental Reporting and Action Planning Process, and use of the HuskySafe incident reporting and tracking system.
Chemicals	Upstream Downstream	Numerous chemicals are used in the exploration (upstream), extraction (upstream), transportation (upstream and downstream), and processing (downstream) of hydrocarbons. This includes chemicals used in upstream hydraulic fracturing (e.g. biocides, corrosion inhibitors, or friction reducers) which are at risk of being released to natural water bodies during onsite handling and transportation. An example of a chemical present at upstream and downstream operations are glycols, which could be a risk if released in an uncontrolled manner to local water bodies. Accidental release of chemicals to surface or groundwater during handling in upstream and downstream operations could result in dissolved or non-aqueous phase chemicals in water. These have the potential to negatively impact aquatic species and/or human health, if the chemical is present at concentrations above guideline values, and if receptors are present (aquatic species, human interaction with the waterbody, etc.). Magnitude of impact will vary	Measures to prevent spillage, leaching and leakages Emergency preparedness Other, please specify	In addition to those listed above, management procedures include secondary containment of storage vessels; operational procedures to ensure the integrity of chemical handling and storage equipment; spill response procedures, reporting, and preparedness to prevent or mitigate impacts to water bodies; regulated and unregulated environmental monitoring programs at facilities; the Husky environmental auditing program; standard operating procedures developed under the Husky Operational Integrity Management System (HOIMS); well servicing standard operating procedures, and the job/task safety permitting program. Many of these initiatives are ultimately endorsed under the Husky Operational Integrity Management System (HOIMS). Specifically, HOIMS Element 8 outlines the governance, assurance and processes around planning and responsible operations to ensure stringent and consistent environmental performance, including water-related issues. Impacts are measured and evaluated

Potential water pollutant	Business division	Description of water pollutant and potential impacts	Management procedures	Please explain
		with the concentration of the chemical released, and may vary from minor and long term to major and immediate.		through the HOIMS Environmental Reporting and Action Planning Process, and use of the HuskySafe incident reporting and tracking system.

### 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.

Value chain stage	Coverage	Risk assessment procedure	Frequency of assessment	How far into the future are risks considered?	Type of tools and methods used	Tools and methods used	Comment
Direct Operations	Full	Water risks are assessed as a standalone issue	Annually	6 to 10 years	Enterprise Risk Management International methodologies Databases	Regional government databases	Husky conducts a preliminary assessment of water-related risks for all of its operations annually. Material water-related risks are identified in accordance with the Company's Corporate Water Standard and Water Risk Assessment Procedure. Facilities deemed to be potentially at higher risk are prioritized for a more detailed water risk assessment. The Company's Corporate Risk Matrix includes environmental, reputational, financial, legal, regulatory, and health and safety aspects.
Supply chain	Partial	Water risks are assessed as a standalone issue	Not defined	Up to 1 year	Other	Internal company methods	This is not currently an issue or a priority for Husky. Refer back to previous supply chain comments in Section 1.4.
Other stages of the value chain	Partial	Water risks are assessed as a standalone issue	Not defined	6 to 10 years	Other	Internal company methods	Water risk assessments for other operators within our industry are assessed as they relate to touchpoints with Husky's operations. For example, Husky relies on agreements with neighbouring producers for water supply for the Sunrise Energy Project. Water risks for these operators are assessed as part of the Sunrise water risk assessment process.

### 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	These aspects are subject to regulatory scrutiny in Husky's operating areas, and are considered in risk assessments. Husky utilizes internal company knowledge, published literature, government databases, and WRI Aqueduct data. Facility locations are assessed against the water risk database designation of water availability.
Water quality at a basin/catchment level	Relevant, always included	These aspects are subject to regulatory scrutiny in Husky's operating areas and are considered in risk assessments. Husky utilizes internal company knowledge, published literature, government databases, and regulatory permits. As an example, detailed historical water quality data has been collected in cases where risks depend on these factors. Water quality is important with respect to technical feasibility of water source, for example, brackish groundwater may have high availability in Saskatchewan but is not a feasible source for steam generation. Water quality in surface water bodies influences water discharge permits such as at the Lima Refinery, where selenium and phosphorous are parameters of concern.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	Stakeholder values and concerns (and conflicts) are included in risk assessments. For example, in the North Saskatchewan River water risk assessment, a stakeholder matrix was prepared as a tool to track concerns.
Implications of water on your key commodities/raw materials	Relevant, not included	Implications of water on key commodities/raw materials are evaluated at a high level annually. Husky has not experienced significant impacts from realization of water risk. Husky manages water aspects of third-party services at its sites (for example, on drilling and completions operations). An assessment of Husky's supply chain suggested that supplies for which steel is an important input (e.g. well casings, process equipment) were potentially exposed to greater water-related risk. However, the World Steel Association indicates that the overall water consumption associated with steel manufacturing is relatively low, at 1.6 to 3.3 m <sup>3</sup> per tonne of steel produced. (Water Management in the Steel Industry, World Steel Association, 2015). As such, further assessment of water-related risk for Husky's supply chain was not considered in 2017. A high-level assessment of potential supply chain risk is undertaken annually, and elements of the supply chain thought to be potentially at elevated risk are highlighted for further assessment.
Water-related regulatory frameworks	Relevant, always included	Regulatory aspects are one of the fundamental criteria evaluated in risk assessments. For example, the Water Conservation Policy and associated guidelines significantly affect water licensing in Alberta. The potential for regulatory changes at a local, provincial or federal level are included in risk assessments based on internal company methods for monitoring regulatory changes, which includes a regulatory monitoring committee and internal communications protocols. Husky engages with regulators on an ongoing basis (both directly and through industry associations such as the Canadian Association of Petroleum Producers) to help anticipate these potential changes. Where regulatory change cannot be clearly anticipated (e.g. in the long term), different scenarios are evaluated for their potential impact on operations.

	Relevance & inclusion	Please explain
Status of ecosystems and habitats	Relevant, always included	Biophysical context for operations is included in risk assessments (for example, impacts to riparian environments related to water use). Federal and regional government databases are utilized, in addition to international databases including WRI Aqueduct. The Species at Risk Public Registry is used to identify species sensitivity near facilities using or discharging water. For example, trumpeter swan nesting areas can be present near hydraulic fracturing operations in Northern Alberta.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	Providing access to WASH services for all employees is a minimum standard for all operations. Husky has a Water Supply Integrity Program designed to ensure water supply for staff is of a suitable quality.
Other contextual issues, please specify	Please select	

### 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, not included	Perspectives of end product-users are not explicitly included. Considerations are made for results of water attitude surveys and for results of regional government engagement during policy development.
Employees	Relevant, always included	Employees provide local knowledge and operational expertise when conducting risk assessments. Employees are engaged through risk assessment workshops, invitations to participate in a formal interdisciplinary network for knowledge exchange related to water (The Water Management Critical Competency Network), intranet communication of risk assessment results, and a social web platform open to all employees where water risks are discussed.
Investors	Relevant, always included	The perspective of investors is important to Husky, and is a consideration when conducting risk assessments. Husky has received investor inquiries about how water risks are identified and managed. Husky regularly responds to the inquiries, which inform its water risk assessment and disclosure.
Local communities	Relevant, always included	Local communities may provide important insights into water risk (e.g. through data or observations about water availability), and as a key stakeholder may also directly influence the Company's water risk. Local communities provide feedback to Husky's Saskatchewan thermal projects through open houses.
NGOs	Relevant, always included	NGOs may be influencers of the Company's water risk. This includes local groups (such as watershed planning and advisory councils) and provincial or national groups, any of which may influence policy or regulation. For example, Husky engages with the North Saskatchewan Watershed Alliance in Alberta. This group sets watershed management plans for the watershed upstream of Husky's Saskatchewan thermal operations, where reliable source water is vital.

	Relevance & inclusion	Please explain
Other water users at a basin/catchment level	Relevant, always included	Other water users may be influencers of water risk, particularly in areas of high competition for a limited resource, or where Husky's water use is perceived to be in conflict with other water user(s). For example, Husky engages and shares water data with local operators in the area of the Sunrise Energy Project through the COSIA Aquifer Working Group.
Regulators	Relevant, always included	Regulators may be influencers of water risk, particularly through regulating access to source and disposal options. The potential for regulatory changes at a local, provincial or federal level are included in risk assessments and are based on internal Company methods for monitoring regulatory changes, which includes a regulatory monitoring committee and internal communications protocols.
River basin management authorities	Relevant, always included	River basin management authorities may provide important insights into water risk (e.g. through data or observations about water availability), and as a key stakeholder may also directly influence The Company's water risk. For example, Husky engages with the North Saskatchewan Watershed Alliance in Alberta. This group sets watershed management plans for the watershed upstream of Husky's Saskatchewan thermal operations, where reliable source water is vital.
Statutory special interest groups at a local level	Relevant, always included	Local special interest groups may provide important insights into water risk (e.g. through data or observations about water availability), and as a key stakeholder may also directly influence the Company's water risk.
Suppliers	Relevant, not included	Husky understands that suppliers may be vulnerable to water risk. To date this has not been judged a substantive risk and as such has not been evaluated in detail. Husky manages water aspects of third-party services at its sites (for example, on drilling and completions operations).
Water utilities at a local level	Relevant, always included	Where facilities are located in developed settlements, Husky considers local water utilities in water risk assessments. As an example, Husky collaborates with the City of Lloydminster on water delivery to the Husky Lloydminster Upgrader.
Other stakeholder, please specify	Please select	

### 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.

Husky conducts a preliminary assessment of water-related risks for all of its operations on an annual basis. Material water-related risks are identified in accordance with the Company's Corporate Water Standard and Water Risk Assessment Procedure. Facilities deemed to be potentially at higher risk are prioritized for a more detailed water risk assessment within the year. The Company's Corporate Risk Matrix includes environmental, reputational, financial, legal, regulatory, and health and safety. Tools used include government databases, international methods and databases, and internal processes.

## 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?**

Husky's enterprise risk management program supports decision-making via comprehensive and systematic identification and assessment of risks that could materially impact the results of the Company. Through this framework, the Company builds risk management and mitigation into strategic planning and operational processes for its business units through the adoption of standards and best practices. Husky has developed an enterprise risk matrix to identify risks to its people, the environment, its assets and its reputation, and to systematically mitigate these risks to an acceptable level.

Husky defines substantive change as having a financial impact to direct operations of greater than ten (10) million dollars. The corporate risk register is revisited on at least an annual basis, while the matrix is evaluated every three years.

An example of a substantive financial impact experienced by Husky was the 16TAN pipeline release in 2016, which resulted in some oil entering the North Saskatchewan River. The cost of this significant event was over \$100 million dollars (not incurred by Husky), as reported in the 2017 CDP Water Response.

### 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	12	Less than 1%	Based on the Husky Corporate Responsibility definition for a facility, Husky has approximately 2,585 facilities in Canada and the United States. Facilities may be as small as a single well battery, or as large as a refinery or offshore production vessel.

### 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	River Basin	Number of facilities exposed to water risk	% company-wide facilities this represents	[METALS & MINING SECTOR ONLY] Production value for the metals & mining activities associated with these facilities	[ELECTRIC UTILITIES SECTOR ONLY] % company's annual electricity generation that could be affected by these facilities	[OIL & GAS SECTOR ONLY] % company's global oil & gas production volume that could be affected by these facilities	% company's total global revenue that could be affected	Comment
Canada	Other, please specify (Atlantic Ocean)	1	Less than 1%	<Not Applicable>	<Not Applicable>	1-25	1-25	Based on the Husky Corporate Responsibility definition for a facility, Husky has approximately 2,585 facilities in Canada and the United States. Facilities may be as small as a single well battery, or as large as a refinery or offshore production vessel. Calculations based on gross revenue.
Canada	Other, please specify (North Saskatchewan River)	9	Less than 1%	<Not Applicable>	<Not Applicable>	1-25	1-25	Based on the Husky Corporate Responsibility definition for a facility, Husky has approximately 2,585 facilities in Canada and the United States. Facilities may be as small as a single well battery, or as large as a refinery or offshore production vessel. Calculations based on gross revenue.
Canada	Other, please specify (Athabasca River)	1	Less than 1%	<Not Applicable>	<Not Applicable>	1-25	1-25	Based on the Husky Corporate Responsibility definition for a facility, Husky has approximately 2,585 facilities in Canada and the United States. Facilities may be as small as a single well battery, or as large as a refinery or offshore production vessel. Calculations based on gross revenue.
United States of America	Other, please specify (Maumee River)	1	Less than 1%	<Not Applicable>	<Not Applicable>	26-50	26-50	Based on the Husky Corporate Responsibility definition for a facility, Husky has approximately 2,585 facilities in Canada and the United States. Facilities may be as small as a single well battery, or as large as a refinery or offshore production vessel. Calculations based on gross revenue.



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	River Basin	Type of risk	Primary risk driver	Primary potential impact	Company-specific description	Timeframe	Magnitude of potential impact	Likelihood	Potential financial impact	Explanation of financial impact	Primary response to risk	Description of response	Cost of response	Explanation of cost of response
Canada	Other, please specify (Atlantic Ocean)	Physical	Other, please specify (Ice and icebergs)	Reduction or disruption in production capacity	Husky operates in some of the harshest environments in the world, including the offshore Atlantic region at the White Rose field. Climate change is expected to increase severe weather conditions, including winds, flooding, and variable temperatures that are contributing to the melting of northern ice and increased iceberg activity. The Company has a number of policies to protect people, equipment, and the environment in the event of extreme weather conditions and adverse ice conditions. Risk Effects: Icebergs and pack ice off the coast of Newfoundland and Labrador may affect Husky's offshore facilities, causing damage to equipment and potential production disruptions, spills, asset damage and human impacts.	Current up to 1 year	Medium	Very unlikely	15000000	The potential production disruption from a one week period of disconnection due to ice for the SeaRose floating production, storage and offloading (FPSO) vessel. This estimate is based on 2017 average daily production numbers of 30,000 boe (net equity share) and 2017 average gross revenue per barrel of \$71.69, as published in Husky's 2017 Annual Report. This estimate is before royalties and is an estimated pre-tax cash flow impact. (30,000 boe x 7 days X \$71.69/boe = \$15,000,000).	Other, please specify (Annual monitoring and management)	Husky's Atlantic region business unit has a robust ice management program that uses a range of resources, including advanced detection, monitoring and management. Ice monitoring is facilitated through fixed-wing flight reconnaissance, satellite imagery processing and offshore supply vessel reconnaissance. Monitoring data is processed in georeferenced format and drift is predicted using established software developed by the National Research Council and the Canadian Ice Service. Supply vessels deflect icebergs through towing by rope or ice net, or pushing by water pressure through a high-velocity water jet nozzle or propeller wash. Husky works independently of, and jointly with, other oil and gas operators through a common ice management contractor. During ice season, Husky owned, operated and/or contracted offshore facilities are assigned ice observers, providing 24-hour coverage. An onshore joint ice operations coordinator is assigned to consolidate ice information between the joint operators. Regular ice surveillance flights usually commence in February, and continue until throughout iceberg season. In addition, Atlantic business unit operators employ a series of supply and support vessels to actively manage ice and icebergs. This fleet has grown over time, partly in response to changing ice conditions. Husky maintains a series of ad-hoc relationships with contractors, providing for the quick mobilization of additional resources as required.	5600000	The cost of the Company's ice monitoring and management activities was approximately \$5.6 million in 2017. This is a variable annual cost.
Canada	Other, please specify (North Saskatchewan River)	Regulatory	Mandatory water efficiency, conservation, recycling or process standards	Increased operating costs	Potential for increased water recycling requirement in Saskatchewan.	Unknown	High	Unknown	300000000	Costs would be variable, and relative to the amount of recycling that is mandated. A single new facility requiring minor (<5%) water recycling could represent a one-time financial impact of \$500,000, plus increases in annual operating costs. Retrofitting all existing facilities for significant amounts of recycling could represent a financial impact >\$300,000,000 (>\$30,000,000 per plant in capital cost;	Adopt water efficiency, water re-use, recycling and conservation practices	Husky is increasing water efficiency at its new Saskatchewan thermal facilities through implementation of an acidification process that improves boiler blowdown recycle. The Company is also preparing for possible changes to regulations by (1) engaging with regulators to anticipate planned changes; (2) evaluating water risk at the facility level for all heavy oil operations; (3) improving characterization of produced water and research of water recycling technology.	1700000	The cost for implementing the acid injection process at each new facility is estimated at \$1,700,000 capital cost at each plant.

										operating costs would be additional to this).				
Canada	Other, please specify (Athabasca River)	Physical	Increased water scarcity	Reduction or disruption in production capacity	Husky is reliant on third-party access agreements to source water for the Sunrise Energy Project. With the local competition for water sources, unplanned changes in the access agreements could impact water sourcing and therefore oil production by the Sunrise Energy Project.	4 - 6 years	Medium	Unlikely	10000000	Financial impacts exceeding \$10,000,000 are considered significant under Husky's corporate risk matrix. If Husky's two operator agreements for water sourcing were compromised at the same time, production would stop. Based on 2017 data, lost production on its own would be a loss of approximately \$4 million per week gross revenue. These costs would be incurred until at least one agreement issue was resolved or an alternate water source was found.	Engage with suppliers	Continue to engage with industry peers on water management plans, collaborate for mutual benefit, continue to update the facility Water Security Plan to ensure mitigation alternatives are updated.	100000	Estimated cost of updates to Water Security Plan for the facility; includes technical assessment and identification of water source mitigations.
United States of America	Other, please specify (Maumee River)	Regulatory	Regulation of discharge quality/volumes	Increased operating costs	At the Lima Refinery, more stringent water discharge criteria for selenium is expected by 2019, and more stringent water discharge criteria for phosphorous is likely by 2023. Either will result in a requirement for new water treatment processes to be implemented, resulting in increased capital and operational costs to address the issue within the existing facility.	1 - 3 years	Medium	More likely than not	11700000	The cost of addressing proposed phosphorous criteria is an estimated one-time expenditure of \$10,000,000. The cost of addressing selenium discharge criteria would be an operational cost of \$1,700,000 per year.	Increase investment in new technology	Technology - Transitioning to water efficient and low water intensity technologies and products. Sanction additional water treatment infrastructure to ensure this risk is addressed through treatment and/or reduction of effluent streams.	10000000	Additional water treatment infrastructure is being implemented as part of the Crude Oil Flexibility project at the Lima Refinery. The cost indicated represents an estimate of the water treatment portion of this project, and is a one-time cost.

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	River Basin	Stage of value chain	Type of risk	Primary risk driver	Primary potential impact	Company-specific description	Timeframe	Magnitude of potential financial impact	Likelihood	Potential financial impact	Explanation of financial impact	Primary response to risk	Description of response	Cost of response	Explanation of cost of response
Canada	Other, please specify (Athabasca River)	Other, please specify (Operations)	Physical	Increased water scarcity	Reduction or disruption in production capacity	Husky is reliant on third-party access agreements for water source for the Sunrise Energy Project. With the local competition for water sources, unplanned changes in the access agreements could impact water sourcing and therefore oil production by the Sunrise Energy Project.	4 - 6 years	Medium	Unlikely	10000000	Financial impacts exceeding \$10,000,000 are considered significant under Husky's corporate risk matrix. If Husky's two operator agreements for water sourcing were compromised at the same time, production would stop. Based on 2017 data, lost production on its own would be a loss of approximately \$4 million per week gross revenues. These costs would be incurred until at least one agreement issue was resolved or an alternate water source was found.	Other, please specify (Engage with suppliers)	Continue to engage with industry peers on plans, collaborate for mutual benefit, continue to update the facility Water Security Plan to ensure mitigation alternatives are updated.	100000	Estimated cost of updates to Water Security Plan for the facility; includes technical assessment and identification of water source mitigations.

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

Type of opportunity	Primary water-related opportunity	Company-specific description & strategy to realize opportunity	Estimated timeframe for realization	Magnitude of potential financial impact	Potential financial impact	Explanation of financial impact
Efficiency	Improved water efficiency in operations	Water sourcing and treatment is a factor in Husky's oil sands and heavy oil project costs including projects such as Sunrise, Bolney, Pikes Peak, Pikes Peak South, Paradise Hill, Rush Lake, Sandall, Edam East, Edam West and Vawn. Husky employs both corporate and business unit teams to research technology that could reduce costs for water sourcing, treatment and disposal. As an example of the strategy in action, an acid injection process is being implemented at new thermal facilities in Saskatchewan to increase blowdown recycling. New produced water recycling technologies are in the process of being assessed for Saskatchewan thermal projects.	1 to 3 years	Low-medium	8000000	Cost savings associated with implementing new technologies for water sourcing, treatment and disposal are difficult to quantify. This is largely due to the type and scale of technology that would be implemented. As an example, increasing source water efficiency by 5% at a Saskatchewan thermal facility could mitigate water source limitations, meaning a resulting increase in production by 1.3% and associated increase in gross revenues by \$8,000,000 based on 2017 data. As another example, implementing partial produced water recycle at Saskatchewan thermal facilities would lead to a lower disposal requirement, which would result in reduced capital costs – each disposal well is approximately \$500,000.
Markets	Improved community relations (Increased transparency )	Husky issues an Environmental, Social and Governance Report on its external website each year which includes water metrics and discussions on water management. The Company also communicates with stakeholders through open houses and direct meetings with key stakeholders on specific local issues. Open houses were conducted for	1 to 3 years	Medium	10000000	Direct cost savings from improved community relations are difficult to estimate. Addressing concerns proactively is especially important for new projects that are waiting for regulatory approval. Concerns from the public may postpone regulatory approval, therefore delaying construction and ultimately delaying production and increasing costs. Open houses and

Type of opportunity	Primary water-related opportunity	Company-specific description & strategy to realize opportunity	Estimated timeframe for realization	Magnitude of potential financial impact	Potential financial impact	Explanation of financial impact
		the Dee Valley, Spruce Lake North and Spruce Lake Central thermal projects in 2017. Direct meetings were held with local First Nations for the McMullen Willow Creek and Sunrise projects, respectively.				direct consultation with stakeholders have a similar effect as they help to proactively answer questions rather than receive formal statements of concern from individuals or groups. Responding to statements of concern require the allocation of staffing resources that may need to be procured from third-party sources.
Efficiency	Improved water efficiency in operations	Continued improvement of the Environmental Performance Reporting System (EPRS) – Water Module. Through EPRS, Husky systematically gathers, calculates, and reports data relating to environmental performance. The water module enables Husky to track water usage trends from the facility to the corporate level, and aids in the identification and prioritization of opportunities for water use reduction and recycling in its operations.	1 to 3 years	Low-medium	8000000	Difficult to quantify. The ability to demonstrate water management through metrics builds credibility with investors. The continued use and improvement of EPRS reduces efforts required to compile water information across the organization. Staffing resources can allocate more time to data interpretation and identifying opportunities rather than data compilation. EPRS helps to identify facilities that are high water users and therefore identify where Husky needs to focus on water use efficiencies. Ultimately the realized water efficiencies can result in increased gross revenues, as outlined in the first example.
Products and services	New R&D opportunities	Collaboration on water technology projects through the Petroleum Technology Alliance of Canada (PTAC) and the Canadian Oil Sands Innovation Alliance (COSIA) (e.g. the Water Technology Development Centre). Husky is actively pursuing this opportunity.	1 to 3 years	Low-medium	4000000	Collaboration with other companies on water technology provides shared resources and capital budget required to research, test, and develop technology projects. The cost of each technology is shared amongst companies and the cost savings depends on how many companies are involved in the collaboration; typically 5-10 companies for each initiative. As an example, a \$5,000,000 water treatment research project is attained at a \$1,000,000 cost to Husky.
Efficiency	Cost savings	Creating a comprehensive wetland database to enable future cost reductions associated with wetland compensation under the Alberta Wetland Policy.	>6 years	Medium	10000000	The wetland database allows Husky to rank and prioritize wetlands for avoidance, minimization of disturbance, and mitigation of disturbance. High quality wetlands require highest compensation if disturbed; these wetlands are identified and avoided where possible to minimize compensation.
Markets	Strengthened social license to operate	Creating two pipeline inventories for Western Canada production and heavy oil and oil sands business units. These inventories compile pipeline crossings, identifies potential issues and provides a risk ranking to allow for the prioritization of maintenance and repair. These inventories are expected to provide increased environmental protection.	1 to 3 years	Low-medium	5000000	Risk ranking pipeline crossings can result in a financial benefit much greater than \$1,000,000. For example, the risk ranking can identify high-risk pipeline infrastructure that cross rivers/creeks, which are used for domestic purposes. The Husky pipeline release into the North Saskatchewan River in 2016 cost over \$100,000,000 (this cost was not incurred by Husky) . Smaller releases into remote creeks could cost around \$5,000,000 for response and remediation. Proactive risk ranking would reduce the potential for a pipeline spill into a water body and the need for an emergency response and costly long-term remediation programs. Demonstrating that Husky is proactively addressing the potential for pipeline spills increases the public's confidence in Husky to be environmentally responsible.
Efficiency	Cost savings	Water recycle during drilling.	Current - up to 1 year	Low	200000	Recycling water during drilling reduces the amount of water that is needed during drilling operations. The cost savings could result from reduced water trucking to the site, reduced requirement for on-site storage, and reduced water disposal cost.

Type of opportunity	Primary water-related opportunity	Company-specific description & strategy to realize opportunity	Estimated timeframe for realization	Magnitude of potential financial impact	Potential financial impact	Explanation of financial impact
Markets	Improved community relations (Stakeholder discussion participation)	Husky is on the North Saskatchewan Watershed Alliance's (NSWA) Board of Directors as the Petroleum Representative. NSWA supports stakeholder and public discussions concerning all aspects of Integrated Watershed Management for the North Saskatchewan River watershed in Alberta.	1 to 3 years	Low	1000000	The NSWA provides an additional forum for engagement with key stakeholders and regulators in the watershed, which allows Husky the opportunity to address and potentially mitigate project concerns from stakeholders and regulators earlier than within the routine regulatory process. Direct cost savings from improved community relations are difficult to estimate. Addressing concerns proactively is especially important for new projects that are awaiting regulatory approval.
Efficiency	Cost savings	The Company uses of flowback water and produced water in hydraulic fracturing operations, from both Husky and neighbouring operations. Husky has conducted pilot programs and works to identify and realize opportunities for effective and appropriate management and reuse of produced and flowback waters.	1 to 3 years	Low	1000000	The use of flowback water and produced water in hydraulic fracturing operations reduces the amount of water that needs to be sourced elsewhere (i.e. surface water or shallow groundwater sources). The cost savings result from reduced water trucking to the site, reduced requirement for on-site storage and reduced water disposal costs.
Efficiency	Cost savings	Work to mitigate regulatory barriers to the efficient use of lower quality water sources at the Sunrise Energy Project through communication with regulatory authorities and demonstration of issues using operational data.	Current - up to 1 year	High	177000000	Husky uses process affected water and groundwater that is in contact with bitumen as sources for steam generation at the Sunrise Energy Project. The chemical nature of these waters causes significant difficulties in water treatment and water recycling. Regulations in Alberta limit the amount of water that can be disposed at thermal in-situ projects such as Sunrise, and therefore encourage water recycling. As Sunrise uses lower quality water as an alternative to fresh water sources, maximum water recycling is a detriment to facility infrastructure. Based on a technical case, regulators increased the amount of disposal water allowed at Sunrise. The alternative would be to implement low liquid discharge (LLD) in the form of a mechanical vapour compression (MVC) evaporator on the blow-down stream. This option comes with high capital investment (approximately \$90 million) and an increase in CO2 emissions. Operating costs will average \$8 million per year including evaporator energy consumption cost, fixed costs including maintenance, supplies, operations labour, connection fees, and CO2 emissions. Husky estimates the before-tax net present cost of this investment to be between \$123 million and \$177 million over the life of the project.
Efficiency	Cost savings	Creation of an internal water technical competency group to share issues and solutions across the Company.	Current - up to 1 year	High	10000000	Water technology and best practices in water management are shared across the Company through the technical group, which means that cost savings realized by one project with a specific technology can be realized by multiple projects. Examples of technologies shared across the Company include oil separation water treatment technologies, which are implemented in thermal operations and at the Upgrader, and boiler blowdown recycle strategies that are implemented at thermal projects in Alberta and Saskatchewan. Potential cost savings can well exceed \$10,000,000.

## 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 reference number	Facility name	Country	River Basin	Latitude	Longitude	Oil & gas sector business division	Total water withdrawals (megaliters/year) at this facility	Comparison of withdrawals with previous reporting year	Total water discharges (megaliters/year) at this facility	Comparison of discharges with previous reporting year	Total water consumption (megaliters/year) at this facility	Comparison of consumption with previous reporting year	Please explain
Facility 1	SeaRose	Canada	Atlantic	46.7904	-48.0163	Upstream	17,732	Lower	17,732	Lower	0	About the Same	There was a decrease in the amount of seawater withdrawn and discharged at Husky's Offshore operations, due to a normal variation in equipment cooling requirements. This volume is expected to remain approximately the same in 2018 based on Husky's current development plan. For comparison purposes 2016 consumption values were recalculated using the 2018 CDP definition of consumption.
Facility 2	Bolney Thermal Plant	Canada	North Saskatchewan River	53.5272	-109.3545	Upstream	6,856	About the Same	6,812	About the Same	44	About the same	No significant change in withdrawals or discharges at this facility. The consumption is negligible (~1%) in the context of the total withdrawal and discharge volumes
Facility 3	Edam East Thermal Plant	Canada	North Saskatchewan River	53.1217	-108.7580	Upstream	3,980	Much Higher	4,015	Much Higher	-34	About the same	Facility was started during 2016, and 2017 represents a full year of production, therefore the withdrawals and discharges are higher. The consumption is negligible (~1%) in the context of the total withdrawal and discharge volumes.
Facility 4	Edam West Thermal Plant	Canada	North Saskatchewan River	53.1003	-108.9257	Upstream	1,800	Much Higher	1,792	Much Higher	8	About the same	Facility was started during 2016, and 2017 represents a full year of production, therefore the withdrawals and discharges are higher. The consumption is negligible (~1%) in the context of the total withdrawal and discharge volumes.
Facility 5	Paradise Hill Thermal Plant	Canada	North Saskatchewan River	53.6060	-109.4479	Upstream	1,821	About the Same	1,805	About the Same	16	About the same	No significant change in withdrawals or discharges at this facility. The consumption is negligible (~1%) in the context of the total withdrawal and discharge volumes.
Facility 6	Pikes Peak South Thermal Plant	Canada	North Saskatchewan River	53.2075	-109.3708	Upstream	3,638	About the Same	3,562	About the Same	76	About the same	No significant change in withdrawals or discharges at this facility. The consumption is negligible (~2%) in the context of the total withdrawal and discharge volumes.
Facility 7	Pikes Peak Thermal Plant	Canada	North Saskatchewan River	53.2790	-109.3650	Upstream	2,726	About the Same	2,615	Lower	111	About the same	No significant change in withdrawals or discharges at this facility. The consumption is negligible (~4%) in the context of the total withdrawal and discharge volumes.

Facility reference number	Facility name	Country	River Basin	Latitude	Longitude	Oil & gas sector business division	Total water withdrawals (megaliters/year) at this facility	Comparison of withdrawals with previous reporting year	Total water discharges (megaliters/year) at this facility	Comparison of discharges with previous reporting year	Total water consumption (megaliters/year) at this facility	Comparison of consumption with previous reporting year	Please explain
Facility 8	Rush Lake Thermal Plant	Canada	North Saskatchewan River	52.8426	-109.8047	Upstream	3,532	About the Same	3,571	About the Same	-40	About the same	No significant change in withdrawals or discharges at this facility. The consumption is negligible (~1%) in the context of the total withdrawal and discharge volumes.
Facility 9	Sandall Thermal Plant	Canada	North Saskatchewan River	53.3996	-109.4381	Upstream	1,408	About the Same	1,392	About the Same	16	About the same	No significant change in withdrawals or discharges at this facility. The consumption is negligible (~1%) in the context of the total withdrawal and discharge volumes.
Facility 10	Vawn Thermal Plant	Canada	North Saskatchewan River	53.1145	-108.6417	Upstream	3,964	Much Higher	4,029	Much Higher	-65	About the same	Facility was started during 2016, and 2017 represents a full year of production, therefore the withdrawals and discharges are higher. The consumption is negligible (~2%) in the context of the total withdrawal and discharge volumes.
Facility 11	Sunrise Energy Project	Canada	Athabasca River	57.2517	-110.9886	Upstream	11,777	Higher	11,468	Higher	309	About the same	There was a significant increase in production at this facility. The consumption is negligible (~3%) in the context of the total withdrawal and discharge volumes.
Facility 12	Lima Refinery	USA	Maumee River	40.7221	-113.8858	Downstream	7,790	Higher	4,172	About the Same	3,619	Much higher	There was a significant increase in throughput at this facility, resulting in higher water withdrawal and consumption.

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

Facility reference number	Facility name	Fresh surface water	Brackish surface water/Seawater	Groundwater	Third party destinations	Comment
Facility 1	SeaRose		14,266			3,466
Facility 2	Bolney Thermal Plant	3,288				3,568
Facility 3	Edam East Thermal Plant	2,319				1,661
Facility 4	Edam West Thermal Plant	1,003				797
Facility 5	Paradise Hill Thermal Plant	907				915
Facility 6	Pikes Peak South Thermal Plant	1,974				1,664
Facility 7	Pikes Peak Thermal Plant	1,482				1,244
Facility 8	Rush Lake Thermal Plant	2,171				1,361
Facility 9	Sandall Thermal Plant	827				581
Facility 10	Vawn Thermal Plant	2,254				1,710
Facility 11	Sunrise Energy Project	8		1,452		9,869



Facility reference number	Facility name	Fresh surface water	Brackish surface water/Seawater	Groundwater	Third party destinations	Comment
Facility 12	Lima Refinery	5,572		2,218		

#### W5.1b

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

Facility reference number

Facility reference number	Facility name	Fresh surface water	Brackish surface water/Seawater	Groundwater	Third party destinations	Comment
Facility 1	SeaRose		12,246	5,486		
Facility 2	Bolney Thermal Plant			6,812		
Facility 3	Edam East Thermal Plant			4,015		
Facility 4	Edam West Thermal Plant			1,792		
Facility 5	Paradise Hill Thermal Plant			1,805		
Facility 6	Pikes Peak South Thermal Plant			3,562		
Facility 7	Pikes Peak Thermal Plant			2,615		
Facility 8	Rush Lake Thermal Plant			3,571		

Facility reference number	Facility name	Fresh surface water	Brackish surface water/Seawater	Groundwater	Third party destinations	Comment
Facility 9	Sandall Thermal Plant			1,392		
Facility 10	Vawn Thermal Plant			4,029		
Facility 11	Sunrise Energy Project			11,468		
Facility 12	Lima Refinery	4,172				

#### 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 name	% recycled or reused	Comparison with previous reporting year	Please explain
Facility 1	SeaRose	None		Water is not recycled at this facility
Facility 2	Bolney Thermal Plant	Less than 1%	This is our first year of measurement	Blowdown water is recycled and offsets freshwater use.
Facility 3	Edam East Thermal Plant	Less than 1%	This is our first year of measurement	Blowdown water is recycled and offsets freshwater use.
Facility 4	Edam West Thermal Plant	None		Water is not recycled at this facility
Facility 5	Paradise Hill Thermal Plant	None		Water is not recycled at this facility

Facility reference number	Facility name	% recycled or reused	Comparison with previous reporting year	Please explain
Facility 6	Pikes Peak South Thermal Plant	Less than 1%	This is our first year of measurement	Blowdown water is recycled and offsets freshwater use.
Facility 7	Pikes Peak Thermal Plant	None		Water is not recycled at this facility
Facility 8	Rush Lake Thermal Plant	Less than 1%	This is our first year of measurement	Blowdown water is recycled and offsets freshwater use.
Facility 9	Sandall Thermal Plant	Less than 1%	This is our first year of measurement	Blowdown water is recycled and offsets freshwater use.
Facility 10	Vawn Thermal Plant	Less than 1%	This is our first year of measurement	Blowdown water is recycled and offsets freshwater use.
Facility 11	Sunrise Energy Project	76-99%	This is our first year of measurement	Produced water is reinjected.
Facility 12	Lima Refinery	Not monitored		Husky does not consistently track internal water recycling such as steam condensate recycle at Downstream facilities.

#### 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**

Water aspect	% verified	What standard and methodology was used?
Water withdrawals – total volumes	Not verified	Internal verification and assurance

Water aspect	% verified	What standard and methodology was used?
Water withdrawals – volume by source	Not verified	Internal verification and assurance
Water withdrawals – quality	Not verified	Internal verification and assurance
Water discharges – total volumes	Not verified	Internal verification and assurance
Water discharges – volume by destination	Not verified	Internal verification and assurance
Water discharges – volume by treatment method	Not verified	Internal verification and assurance
Water discharge quality – quality by standard effluent parameters	Not verified	Internal verification and assurance
Water discharge quality – temperature	Not verified	Internal verification and assurance
Water consumption – total volume	Not verified	Internal verification and assurance
Water recycled/reused	Not verified	Internal verification and assurance

## W6. Governance

### W6.1

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

Yes, we have a documented water policy, but it is not publicly available

### W6.1a

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

	Scope	Content	Please explain
Row 1	Company-wide	<p>Description of business dependency on water</p> <p>Description of business impact on water</p> <p>Description of water-related performance standards for direct operations</p> <p>Reference to international standards and widely-recognized water initiatives</p> <p>Company water targets and goals</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to water-related innovation</p> <p>Commitment to water stewardship and/or collective action</p> <p>Recognition of environmental linkages, for example, due to climate change</p>	<p>The Husky Corporate Water Standard applies to the entire Company and is approved by the Chief Operating Officer. The Standard outlines the expectation for every facility to conduct a water risk assessment and develop a water management plan. The Standard describes both the business dependency on water, such as oil production and refining needs, and describes business impact on water, such as resulting impacts to water availability from Husky's use or to water quality from inadvertent releases. The Water Standard references international standards in setting expectations for water risk assessments. Risk assessments are expected to consider environmental linkages. Targets and goals are included, to ensure objectives are met. The Water Standard outlines that regulatory compliance is the minimum expectation, and that the company expects to reach beyond that as responsible water stewards. The Water Management Critical Competency Network is endorsed under the Standard.</p>

### 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) of the individual(s) on the board with responsibility for water-related issues.**

Position of individual	Please explain
Director on board	The Chair of the Health Safety and Environment Committee of the Board of Directors holds responsibility for oversight of water-related issues as part of the committee’s overall mandate to assist the Board in carrying out its responsibilities by reviewing, reporting and making recommendations to the Board on the Corporation’s policies, management systems and programs with respect to health, safety and environment (“HS&E”). The Committee meets at least semi-annually and advises and reports to the Co-Chairs of the Board and the Board on a regular basis as deemed responsibly appropriate.

**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	<ul style="list-style-type: none"> <li>Reviewing and guiding major plans of action</li> <li>Reviewing and guiding risk management policies</li> <li>Reviewing and guiding strategy</li> <li>Reviewing and guiding corporate responsibility strategy</li> </ul>	The Health, Safety and Environment Committee of the Board of Director meets at least semi-annually with the mandate to assist the Board in carrying out its responsibilities by reviewing, reporting and making recommendations to the Board on the Corporation’s policies, management systems and programs with respect to health, safety and environment (“HS&E”). Husky includes water-related issues as part of its definition of HS&E. The Committee has the oversight responsibilities and specific duties that include the following. On a periodic basis: 1. Review the Corporation’s HS&E policy, management systems and programs and any significant policy contraventions. 2. Review the Corporation’s HS&E audit program and significant findings. 3. Review compliance with governmental orders, conduct of litigation and other proceedings relating to HS&E matters. 4. Review actions and initiatives undertaken to mitigate HS&E risk and/or HS&E matters having the potential to affect the Corporation’s activities, plans, strategies or reputation. Oversee the Corporation’s risk management framework and related processes in relation to HS&E matters. 5. Review the Corporation’s environmental remediation program. 6. Monitor the relationship with regulatory authorities and others outside the Corporation (including joint venture partners, neighbouring property owners, stakeholders and shareholders) on HS&E issues.

**W6.3**

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

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

Other, please specify (COO and Executive HSE Committee)

**Responsibility**

Both assessing and managing water-related risks and opportunities

**Frequency of reporting to the board on water-related issues**

Half-yearly

**Please explain**

Water-related issues are managed by the Executive Health, Safety and Environment Committee (EHSEC). This committee consists of members of senior management (Vice-President and above), and is chaired by the Chief Operating Officer, who holds ultimate accountability for reporting on water-related issues to the Board. The EHSEC maintains elements of the enterprise risk matrix related to health, safety, and the environment, including water-related risk. The enterprise risk matrix is maintained by the Risk and Compliance Committee, which reports the matrix to the Audit Committee of the Board of Directors on a quarterly basis, the Health, Safety and Environment Committee of the Board of Directors at least semi-annually, and to the Board of directors annually.

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

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**(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

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**W6.5**

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

Yes, direct engagement with policy makers

Yes, trade associations

Yes, funding research organizations

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**W6.5a**

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**(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?**

Key individuals in the business units and supporting service groups that are involved in water management issues are engaged through the Water Regulatory Monitoring Committee and the Water Management Critical Competency Network. The Company's position on water-related issues are clearly communicated to policy makers either directly or through participation in industry association working groups within the jurisdictions where the Company operates. Husky's Government Relations department works with company representatives involved in water policy engagement to ensure that policy advocacy activities are aligned.

## 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	11-15	Water sourcing and discharge are critical to most of Husky's operations. Availability, reliability, regulatory, and stakeholder water issues are local. For example, in some of Husky's operating areas, water disposal capacity is abundant, while water sourcing is more scarce. Husky considers these aspects in assessing long term strategy, including evaluation of potential oil and gas assets. This includes hydrogeologic and hydrologic assessment of water resources for future developments.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	Water sourcing and discharge are critical to most of Husky's operations. Availability, reliability, regulatory, and stakeholder water issues are local. For example, in some of Husky's operating areas, water disposal capacity is abundant, while water sourcing is more scarce. Husky considers these aspects in assessing long term strategy, including evaluation of potential oil and gas assets. This includes hydrogeologic and hydrologic assessment of water resources.
Financial planning	Yes, water-related issues are integrated	11-15	Capital is required to protect and remediate fresh water, identify and evaluate water sourcing and discharge options, and implement water storage and treatment technologies. The potential for increased capital expenditure has further motivated efforts to identify opportunities for increased water efficiency and continuous improvement in asset integrity.

### 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?**

	Water-related CAPEX (+/- % change)	Anticipated forward trend for CAPEX (+/- % change)	Water-related OPEX (+/- % change)	Anticipated forward trend for OPEX (+/- % change)	Please explain
Row 1					

### 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	Husky has conducted qualitative climate scenario analysis with respect to GHG emissions. As a separate process, Husky considers potential changes in the status of water availability and ecosystems/habitats at a local level when they relate to the water management aspect being considered. The Company invests in research to better understand how water availability and ecosystem/habitats may change over time, which include climate aspects.

**W7.3a**

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

Yes

**W7.3b**

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

	Climate-related scenario(s)	Description of possible water-related outcomes	Company response to possible water-related outcomes
Row 1	Other, please specify (Internal)	Limitations in water availability	Investment in climate-related water availability research to better predict potential availability issues.

**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**

Water valuation is complex and there is limited guidance on establishing a methodology, particularly in the oil and gas industry. In the jurisdictions Husky operates in, there does not exist extensive data or methodology around water valuation. Husky will continue to explore water valuation practices.

## 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 Site/facility specific targets and/or goals Basin specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	Targets and goals are outlined in Husky Corporate Water Standard, which has been endorsed by the Chief Operations Officer. The targets and goals were developed based on identification of water risks, and are evaluated on an annual basis.

### W8.1a

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

Target reference number	Category of target	Level	Primary motivation	Description of target	Quantitative metric	Baseline year	Start year	Target year	% achieved	Please explain
Target 1	Other, please specify (Water Management Plans)	Company-wide	Risk mitigation	Complete and document water management plans for all operations that rely on water resources or have the potential to negatively impact water resources. Water management plans (also referred to as water risk assessments) identify water risks and associated mitigations, and therefore are critical to water security. For this reason the target is Company wide, with expectations applicable to individual facilities.	Other, please specify (% of facilities with management plan)	2014	2014	2020	23	23% of all facilities identified that rely on water resources or have the potential to negatively impact water resources have had water management plans documented. The priority has been on higher risk facilities with more complex water risks.

W8.1b

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

Goal	Level	Motivation	Description of goal	Baseline year	Start year	End year	Progress
Other, please specify (Facility Water Management Plans)	Company-wide	Risk mitigation	Completion of water risk assessments. Annually, facilities that rely on water are identified, risks reviewed at a high level, and facilities are selected for detailed water risk assessment and mitigation. This is a Company-wide goal to allow prioritization of the highest risk facilities. This ensures the highest water risks in the Company are being addressed, which is important to Husky since a large portion of operations are dependent on water. A schedule is updated to track progress of water risk assessments.	2014	2014		A list of facilities that rely on water is generated, and progress in conducting water risk assessments is tracked against this list each year. Success is indicated by completion of risk assessments for the highest priority facilities on an annual basis, and for all facilities by 2020. Husky achieved this goal in 2017 with completion of a water risk assessment for 11 priority facilities that were identified, and has now completed 25% of all water-reliant facilities.
Other, please specify (Minimize impact to water from operations)	Company-wide	Water stewardship	improvement, working to address lessons learned. For example, the Company is reviewing its pipeline best practices, particularly as they relate to water bodies.	2014	2014		Husky evaluates for impacts to water at the site level and reviews them at the corporate level based on water response and remediation work completed and incident tracking. Success is indicated by decreases in incidents involving water and decreases in costs related to water response and remediation work.
Other, please specify (Manage risks or impacts to operations)	Site/facility	Cost savings	Manage risks or impacts to assets and operations from water events such as flooding, drought, or icebergs. This is relevant across the Company.	2014	2014		Watercourse crossing procedure implemented, internally conducted several hydrologic assessments to evaluate risks related to surface water flows. As an example, Husky has a business continuity plan that was informed by impacts from the 2013 flood in Calgary. Incidents or impacts resulting from water events are reviewed on an annual basis.

Goal	Level	Motivation	Description of goal	Baseline year	Start year	End year	Progress
Other, please specify (Evaluate alternatives and opportunities)	Company-wide	Risk mitigation	Evaluate, identify, and apply reasonable alternatives and opportunities for efficient water management based on the technical, social, economic, environmental, and regulatory aspects. Where practicable, Husky evaluates opportunities to use alternatives to freshwater. This is implemented across the company as part of water management plans (water risk assessments).	2014	2014		Where alternatives perform better than freshwater in terms of mitigating risk, these alternatives are pursued. For example, investments were made to use process-affected water to supplement water supply for a project.
Other, please specify (Track water volumes)	Company-wide	Water stewardship	Consistent, reliable, and meaningful corporate water metrics.	2014	2014		Husky tracks water volumes in its Environmental Performance Reporting System, and reviews water volumes at the facility level on an annual basis. Overall water metrics are externally assured for inclusion in the Corporate Environmental, Social, and Governance Performance Report. Receipt of assurance is an indicator of success.
Other, please specify (Establish metrics)	Basin level	Water stewardship	Establish, periodically review, and communicate metrics in order to drive continual improvement in water stewardship.	2014	2014		Husky reviews corporate metrics regularly and shares them publicly through the annual Environment and Social Governance report. Improvements in internal metrics and tracking continued in 2017, with further development of an Environmental Reporting and Action Plan program (which records water performance at the water basin and facility and levels).
Other, please specify (Water committee engagement)	Business	Risk mitigation	Husky engages with external committees to ensure understanding of regulatory requirements, stakeholder concerns, and water risks.	2014	2014		Husky continues to engage with numerous water committees including watershed planning and advisory committees and industry committees including the Canadian Oilsands Innovation Alliance (COSIA), the Petroleum Technology Alliance Canada (PTAC), the Canadian Association of Petroleum Producers (CAPP) and IPIECA.

## 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/trade-off	Type of linkage/tradeoff	Description of linkage/trade-off	Policy or action
Tradeoff	Increased GHG emissions	Treatment of lower-quality sources requires energy. Reducing consumption of freshwater may impact GHG and other air emissions. As an example, this is considered in assessing water efficiency in Husky's Saskatchewan thermal projects.	Husky assesses emission/energy consumption tradeoffs as part of water risk assessments, particularly in selecting water sourcing for new projects. The assessment can be influenced by competing regulatory frameworks. As an example, increases in emissions expected from supplemental water treatment of lower quality sources have been assessed to be low relative to emissions related to once-through steam generators for Saskatchewan thermal projects.
Tradeoff	Other, please specify (Land use)	Use of lower quality sources will likely require the overland transport of those water types. In the case of saline sources, for example, leaks or spills will have a greater impact than if freshwater were used. Reducing consumption of freshwater therefore may come at a cost in terms of risks to land. Treatment of lower quality sources may also require a larger footprint than is required for freshwater sources.	Husky assesses land use tradeoffs as part of water risk assessments, particularly in selecting water sourcing for new projects. The assessment can be influenced by competing regulatory frameworks.
Linkage	Increased biodiversity	Husky assesses land use tradeoffs as part of water risk assessments, particularly in selecting water sourcing for new projects. The assessment can be influenced by competing regulatory frameworks.	Husky assesses biodiversity linkages as part of water risk assessments.

## W10. Verification

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### W10.1

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**(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**

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### W-FI

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**(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.**

READER ADVISORIES See attached document regarding Forward-Looking Statements and Disclosure of Oil and Gas Information.

[2018 CDP - Water Module Reader Advisories v. 2 \(17.09.2018\).DOCX](#)

### W11.1

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

	Job title	Corresponding job category
Row 1	VP, Corporate Responsibility	Chief Sustainability Officer (CSO)

### W11.2

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**(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