

# Welcome to your CDP Water Security Questionnaire 2021

## **W0.** Introduction

#### W<sub>0.1</sub>

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

Suncor is an integrated energy company headquartered in Calgary, Alberta, Canada. Suncor's long-life, low-decline asset base, strong balance sheet and integrated model, with our connection to end consumers through our retail network, sets us apart from our peers. These advantages are complemented by our long-standing approach to sustainability, operational excellence, capital discipline, technology and innovation. Suncor's integrated operations include oil sands development and upgrading, onshore and offshore oil and gas production, petroleum refining, renewables and product marketing under the Petro-Canada™ brand. As Canada's leading integrated energy company, we believe environmental and social progress and economic performance are intertwined and integral to our success.

The terms "Suncor" or "the company" in these responses are used herein for simplicity of communication and only mean that there is an affiliation with Suncor Energy Inc., without necessarily identifying the specific nature of the affiliation. The use of such terms in any response herein does not mean that they apply to Suncor Energy Inc. or any particular affiliate, and does not waive the corporate separateness of any affiliate. For further clarity, Suncor Energy Inc. does not directly operate or own assets in the United States.

#### W-OG0.1a

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

Upstream
Midstream/Downstream

#### W<sub>0.2</sub>

#### (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, 2020	December 31, 2020



#### W<sub>0.3</sub>

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

Canada

United States of America

#### W<sub>0.4</sub>

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

CAD

#### W<sub>0.5</sub>

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

Companies, entities or groups over which operational control is exercised

#### **W0.6**

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

No

## W1. Current state

#### W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Important	Water is an integral component of Suncor's operations to extract, upgrade and refine our oil & gas products. Our operations use fresh water, saline water, recycled wastewater and industrial storm water run-off for water make-up. The primary use of fresh water in Suncor operations is for utilities.  Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and



			wastewater production. To continue improving our environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital	Important	Approximately 92% of the water used by our mining and extraction operations (Base Plant and Fort Hills) in 2020 was recycled water.  Produced water in thermal in situ oil sands facilities primarily consists of condensed steam injected for oil recovery. The hot oil/water emulsion is treated to separate the oil for sales and to reuse the water for steam. Reuse rates at Suncor in situ facilities are approximately 97%.  Our Edmonton refinery's primary water supply is reused municipal waste water from the local treatment facility.  In 2020, approximately 42% of the total water used was from recycled wastewater supplied from the Gold Bar Wastewater Treatment Plant, in Edmonton.  We anticipate that continued monitoring of the watersheds will help us adapt and continue to take appropriate actions to reduce our water footprint. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To continue improving our environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.

# W1.2

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

% of	Please explain
70 UI	r lease explain
cited/facilities/enerations	
sites/facilities/operations	
sites/lacilities/operations	



Water withdrawals – total volumes	100%	Total water withdrawal volumes are measured and monitored at our operating facilities as a regulatory requirement. We also publicly
		disclose water performance including annual withdrawal volumes in our Report on Sustainability. This helps us to track and report our withdrawal volumes for better
		performance and also to increase transparency with our stakeholders. Suncor complies with provincial and federal regulatory standards for water monitoring which typically
		requires monthly and/or annual reporting to regulatory agencies. The standards mandate specific technical methods and monitoring boundaries consistent with best practices.
Water withdrawals –	100%	Total water withdrawal volumes by source are
volumes by source		metered at all of our operating facilities. As a
		regulatory requirement, we report the volumes we withdraw from each source. We also
		publicly disclose water performance including
		annual withdrawal volumes in our Report on
		Sustainability. This aids with performance tracking and increases transparency with our
		stakeholders. Suncor complies with provincial
		and federal regulatory standards for water
		monitoring which typically requires monthly and/or annual reporting to regulatory
		agencies. The standards mandate specific
		technical methods and monitoring boundaries consistent with best practices.
Produced water	100%	Produced water in thermal in situ oil sands
associated with your oil & gas sector activities -		facilities primarily consists of condensed steam injected for oil recovery. The hot
total volumes [only oil		oil/water emulsion is treated to separate the oil
and gas sector]		for sales and to reuse the water for steam.
		Reuse rates at Suncor in situ facilities are approximately 98%.
		Total produced water volumes are measured and monitored at Suncor In-Situ facilities. As a
		regulatory requirement, we report the volumes we withdraw to regulatory agencies.
		Suncor complies with provincial and federal regulatory standards for water monitoring



		which typically requires monthly and/or annual reporting to regulatory agencies. The standards mandate specific technical methods and monitoring boundaries consistent with best practices.	
Water withdrawals quality	51-75	Suncor measures and monitors our surface water withdrawal quality. The monitored quality is aligned with water discharge quality effluent parameters.	
Water discharges – total volumes	100%	The total water discharge volumes are measured and monitored. We are required to report to the regulators the volume of water we discharge (return) back to the environment. Suncor also reports this volum annually to our stakeholders in our Report of Sustainability.  Suncor complies with provincial and federal regulatory standards for water monitoring which typically requires monthly and/or annureporting to regulatory agencies. The standards mandate specific technical methol and monitoring boundaries consistent with best practices.	
Water discharges – volumes by destination	100%	The total water discharge volumes by destination are measured and monitored. We are required to report to the regulators the volume of water we discharge (return) back to the environment and where we discharge the water.  Suncor complies with provincial and federal regulatory standards for water monitoring which typically requires monthly and/or annual reporting to regulatory agencies. The standards mandate specific technical methods and monitoring boundaries consistent with best practices.	
Water discharges – volumes by treatment method	100%	The water discharge volumes by treatment method are both measured and monitored. We are required to report this information to regulator bodies.	
Water discharge quality  – by standard effluent parameters	100%	Suncor measures and monitors our water discharge quality effluent parameters. We are regulated in our operating approvals on the quality of water we discharge back to the	



		environment. This requires that we analyze for specific parameters and report these results to the regulators on a monthly and/or annual basis.
Water discharge quality  – temperature	1-25	Suncor measures and monitors our water discharge quality effluent parameters required by regulators and those parameters do not include the water temperature.
Water consumption – total volume	100%	Suncor measures and monitors our water consumption volumes for all of our facilities. We report these volumes annually to our stakeholders in our Report on Sustainability.
Water recycled/reused	100%	Suncor measures and monitors our water consumption volumes for all of our facilities. Suncor complies with provincial and federal regulatory standards for water monitoring which typically requires monthly and/or annual reporting to regulatory agencies. The standards mandate specific technical methods and monitoring boundaries consistent with best practices.
The provision of fully- functioning, safely managed WASH services to all workers	100%	Suncor's operations are in developed countries which all have requirements for worker health and safety as well as water and sanitation provision. Monitoring is required at both the global/national level and at the facility level as per national policies and standards for WASH. The standards cover: water quality, water quantity, water facilities and access to water, wastewater treatment and disposal and other environmental issues.

# 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	133,964	Lower	In 2020, we saw improved water efficiency (decrease in consumption and increased recycle rates) at Base Plant; decreased production and water use at Fort Hills and in situ sites; no water



use at Terra Nova due to suspended operations; high precipitation rates at our upstream facilites; low precipitation rates and decreased efficiency for Refining and Logistics operations. We continue to explore and implement local initiatives that will result in more efficient water use.

Our intake of fresh and non-fresh water for 2020 was 134 million cubic metres, 7% lower than 2019 performance. The water intake is used for refining products, with the balance mainly being consumed in oil and gas production.

Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Data reported is sourced from direct measurements.

Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.

The reported figures satisfy the equation:

W = D + C

Where,

W= total withdrawals

D= total discharges

C= total consumption

Total withdrawal does not include produced/processed water in this case. Produced water in thermal in situ oil sands facilities primarily consists of condensed steam injected for oil recovery. The hot oil/water emulsion is treated to separate the oil for sales



			and to reuse the water for steam. Reuse rates at Suncor in situ facilities are approximately 98%.
Total discharges	77,359	About the same	In 2020, Suncor's total water discharge volume was approximately the same as 2019 volumes.  Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/Much high (>11%). Data reported is sourced from direct measurements. Total water return is water leaving organization's boundary and released to surface water, groundwater or to third parties. Data reported is sourced from direct measurements.  Suncor has developed models and tools used to
			anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.  The reported figures satisfy the equation:  W = D + C  Where,  W= total withdrawals  D= total discharges  C= total consumption
Total consumption	56,614	Much lower	In 2020, we saw improved water efficiency (decrease in consumption and increased recycle rates) at Base Plant; decreased production and water use at Fort Hills and in situ sites; no water use at Terra Nova due to suspended operations; high precipitation rates at our upstream facilites; low precipitation rates and decreased efficiency for Refining and Logistics operations. We continue to explore and implement local initiatives that will result in more efficient water use.  Our consumption of fresh and non-fresh water for 2020 was 57 million cubic metres, 15% lower than 2019 performance. Our absolute freshwater consumption decreased by 40% and freshwater



consumption intensity decreased by approximately 40% compared to 2019 performance.  Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/Much high (>11%). Data reported is sourced from direct measurements. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form. Data reported is sourced from direct measurements.  Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.  The reported figures satisfy the equation:  W = D + C
W = D + C Where, W= total withdrawals D= total discharges C= total consumption

## 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	80,723	Much Lower	Suncor's operations include oil sands extraction and upgrading, onshore and offshore oil and gas production, petroleum refining and product marketing under the Petro-Canada™



			brand, as well as renewable energy development. Suncor upstream operations includes: Mining, In Situ, and Exploration & Production.  Suncor 2020 upstream total water withdrawal volume was 14% lower than 2019 mainly due improved water efficiency at Base Plant; decreased production and water use at Fort Hills and in situ sites; zero ocean water intake at Terra Nova.  Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/Much high (>11%).  Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.
Total discharges – upstream	30,936	Lower	Suncor's operations include oil sands extraction and upgrading, onshore and offshore oil and gas production, petroleum refining and product marketing under the Petro-Canada™ brand, as well as renewable energy development. Suncor upstream operations includes: Mining, In Situ, and Exploration & Production.  Suncor 2020 upstream total water discharge volume is 7% lower than 2019 mainly due to improved water efficiency at Base Plant; decreased production and water use at Fort Hills and in situ sites; zero ocean water



			intake at Terra Nova.
			Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%).  Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.
Total consumption – upstream	49,796	Much Lower	Suncor's operations include oil sands extraction and upgrading, onshore and offshore oil and gas production, petroleum refining and product marketing under the Petro-Canada™ brand, as well as renewable energy development. Suncor upstream operations includes: Mining, In Situ, and Exploration & Production.
			Suncor 2020 upstream total water consumption volume is 18% lower than 2019 mainly due to to improved water efficiency at Base Plant; decreased production and water use at Fort Hills and in situ sites; zero ocean water intake at Terra Nova.  Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/
			Much high (>11%).  Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To



			advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.
Total withdrawals - midstream/downstream	53,241	Higher	Suncor's operations include oil sands extraction and upgrading, onshore and offshore oil and gas production, petroleum refining and product marketing under the Petro-Canada™ brand, as well as renewable energy development. Suncor downstream operations includes our four refineries located in Edmonton, Alta.; Sarnia, Ont.; Montreal, Que. and Commerce City, Colo. Downstream operations also includes our Burrard Terminal, St. Clair Ethanol Plant the Montreal Sulphur Plant.  Suncor 2020 downstream total water withdrawal volume is 8% higher than 2019 due to low precipitation rates in Montreal, Sarnia and Commerce City; decreased efficiency on some downstream sites; and more accurate water accounting. We continue to explore and implement local initiatives that will result in more efficient water use.  Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/Much high (>11%).  Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a



			Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.
Total discharges – midstream/downstream	46,424	Higher	Suncor's operations include oil sands extraction and upgrading, onshore and offshore oil and gas production, petroleum refining and product marketing under the Petro-Canada™ brand, as well as renewable energy development. Suncor downstream operations includes our four refineries located in Edmonton, Alta.; Sarnia, Ont.; Montreal, Que. and Commerce City, Colo. Downstream operations also includes our Burrard Terminal, St. Clair Ethanol Plant the Montreal Sulphur Plant.  Suncor 2020 downstream total water discharge volume is 6% higher than 2019 due to low precipitation rates in Montreal, Sarnia and Commerce City; decreased efficiency on some downstream sites; and more accurate water accounting. We continue to explore and implement local initiatives that will result in more efficient water use.  Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%).  Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a



			10 year outlook on a corporate and facility level.
Total consumption – midstream/downstream	6,818	Much higher	Suncor's operations include oil sands extraction and upgrading, onshore and offshore oil and gas production, petroleum refining and product marketing under the Petro-Canada™ brand, as well as renewable energy development. Suncor downstream operations includes our four refineries located in Edmonton, Alta.; Sarnia, Ont.; Montreal, Que. and Commerce City, Colo. Downstream operations also includes our Burrard Terminal, St. Clair Ethanol Plant the Montreal Sulphur Plant.  Suncor 2020 downstream total water discharge volume is 23% higher than 2019 due to low precipitation rates in Montreal, Sarnia and Commerce City;
			decreased efficiency on some downstream sites; and more accurate water accounting. We continue to explore and implement local initiatives that will result in more efficient water use.
			Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/Much high (>11%).
			Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.



# W1.2d

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

	Withdrawals are from areas with water stress	Identification tool	Please explain
Row 1	No	WWF Water Risk Filter	There are a variety of tools available to assess water stress and risk across our diverse assets, including IPIECAs Global Water Tool for Oil and Gas, the World Wildlife Funds Water Risk Filter Tool, and the World Resources Institutes Aqueduct Water Risk Atlas1. Suncor has non-operated assets in the United Kingdom, North Africa, and the Middle East that are located in basins of high water stress (less than 1700 m3/yr), however, since Suncor is not the operator of these assets, they are not included for consideration for this submission.  Locally, regulators and governments also track water availability. For instance, the Alberta Energy Regulator provides public information showing water-short, potentially water-short and locally constrained areas in Alberta: High-resolution map  None of Suncor's assets operate in areas of high risk of water stress (<40% ratio of withdrawals to supply). However, Suncor's Commerce City refinery in Colorado operates in a region that is classified as moderate risk (medium-high stress, 20-40% ratio of withdrawals to supply) according to the World Resources Institute's Aqueduct Water Risk Atlas. Water management is a priority at Suncor and we will continue to monitor the status of the basin going forward while focusing on implementing industry-leading innovation at our facilities to reduce, recycle, reuse and return water.

## W1.2h

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

Relevance	Volume (megaliters/year)	<u>-</u>	Please explain
	( 131 11 11,111,	previous	
		reporting	
		year	



Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	123,212	Much higher	In 2020, Suncor's fresh water withdrawal volume was 16% higher than 2019 mainly due to increased industrial run off volumes in the Mackenzie River basin. Threshold: About the same (0%-5%). Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Data reported is sourced from direct measurements. If runoff water is not measured, estimate precipitation volume using surface area of operated facility X by the annual precipitation depth. Fresh water is characterized by low TDS content for which limits are defined by regulation in the jurisdiction. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/reused, and wastewater production. Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 yr outlook on a corporate and facility level.
Brackish surface water/Seawater	Relevant	0	Much lower	In 2020, Suncor's non-fresh water withdrawal volume was 100% lower than 2019 due to no water use at Terra Nova. Production at Terra Nova has been shut in since the fourth quarter of 2019. Threshold: About the same (0%-5%). Total water withdrawal is the removal or purchase of water from any source,



				permanently or temporarily. Non-fresh water included. Data reported is sourced from direct measurements. Fresh water is characterized by low TDS content for which limits are defined by regulation in the jurisdiction. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 yr outlook on a corporate and facility level.
Groundwater – renewable	Not relevant			Suncor does not use renewable groundwater in operations.
Groundwater – non-renewable	Relevant	4,412	Much higher	In 2020, Suncor's groundwater withdrawal volume was 13% higher than 2019 due to Fort Hills increased saline groundwater intake for mine progression depressurization activities and increased groundwater required at MacKay River for site ramp up activities. Threshold: Much low/Much high (>11%). Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and nonfresh water included. Data reported is sourced from direct measurements. Fresh water is characterized by low TDS content for which limits are defined by regulation in



			the jurisdiction. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 yr outlook on a corporate and facility level.
Produced/Entrained water	Relevant	Much lower	Produced water in thermal in situ oil sands facilities primarily consists of condensed steam injected for oil recovery. The hot oil/water emulsion is treated to separate the oil for sales and to reuse the water for steam. As a result of high recycle rates, the produced water volume of 33 million m3 is not a new withdrawal. In 2020, Suncor upstream in situ sites (Firebag and MacKay River) production decreased compared to 2019 performance which resulted in a 13% reduction in produced water. Produced water recycling rate was 94.7% at our Firebag in-situ operations and 98.5% at our MacKay River in-situ operations. At Terra Nova, produced water was lower than 2018 due to less water injection required for production. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water



				recycled/ reused, and wastewater production. Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 yr outlook.
Third party sources	Relevant	6,340	Higher	In 2020, Suncor's water withdrawal volume from third party sources was 7% higher than 2019 performance mainly due to lower water withdrawal from other fresh water sources such as the river and rainwater, therefore there was more of a requirement to import water from third parties in the downstream. About the same (0%-5%). Data reported is sourced from direct measurements. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 yr outlook on a corporate and facility level.

# 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	75,875	Much higher	In 2020, Suncor's total fresh surface water discharges increased by 38% mainly due to increased industrial run off



				volumes in the Mackenzie River basin. Thresholds: About the same (0%-5%). Data reported is sourced from direct measurements. Total water return is water leaving organization's boundary and released to surface water. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.
Brackish surface water/seawater	Relevant	548	Much lower	In 2020, Suncor's total non-fresh water discharges were 97% lower compared to 2019 performance due to no water use at Terra Nova. Production at Terra Nova has been shut in since the fourth quarter of 2019. Thresholds: About the same (0%-5%). Data reported is sourced from direct measurements. Total water return is water leaving organization's boundary and released to surface water. Non-fresh water included. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and



Groundwater	Not			wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.  Suncor does not charge water to
Third-party destinations	Relevant	936	Higher	groundwater in operations.  We have improved our data set and have been able to capture the amount of water we send to municipal treatment plants from various upstream and downstream facilities. In 2020, Suncor's water discharge volume from third party sources was 5% higher than 2019, due to increased volumes being sent for treatment in our upstream and downstream operations.  Threshold: Much low/Much high (>11%). Total water return is water leaving organization's boundary and released to third parties. Data reported is sourced from direct measurements. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 yr outlook on a corporate and facility level.

# W1.2j

# (W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

Relevanc	Volume	Comparison	% of your	Please
e of	(megaliters/year	of treated	sites/facilities/operation	explain
treatment	)	volume with	s this volume applies to	



	level to discharge		previous reporting year		
Tertiary treatment	Relevant	4,040	This is our first year of measuremen t	1-10	Suncor has monitored all water treatment activities for years, but this is the first year of measurement and reporting against CDP guidance. Tertiary treatment involves the additional treatment needed to remove suspended, colloidal and dissolved constituents (nutrients, heavy metals, inorganic and other contaminants) remaining after secondary treatment through a number of processes including granular media filtration, biological nitrification-denitrification, biological phosphorus



	I	I	
			removal,
			chlorination,
			etc. Tertiary
			treatment
			follows
			secondary
			treatment,
			further
			treatment and
			filtration. Our
			Sarnia
			Refinery uses
			Granular
			Activated
			Carbon (GAC)
			filters, the GAC
			help to remove
			the remaining
			trace of toxicity
			from the water.
			Our
			Commerce
			City Refinery
			uses
			Ultrafiltration
			(UF), the UF
			helps to
			remove the
			final traces of
			solids,
			including
			arsenic and
			mercury to
			meet our
			regulatory
			requirements.
			Commerce
			City will be
			using
			additional
			tertiary
			treatment in
			the future.
			Suncor has
			developed
			models and



					tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/reused, and wastewater production. Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 yr outlook on a corporate and facility level.
secondary	Relevant	6,114	This is our first year of measuremen t	1-10	Suncor has monitored all water treatment activities for years, but this is the first year of measurement and reporting against CDP guidance. Secondary treatment involves the degradation of organic matter and reduction of solids through biological treatment. The removal of nutrients



		(nitrogen
		and/or
		phosphorus)
		can also be
		achieved at
		this level of
		treatment
		using a
		combination of
		chemical and
		biological
		treatments.
		Secondary
		treatment
		follows primary
		treatment.
		Suncor uses
		micro bio
		systems for
		secondary
		treatment. Our
		Montreal,
		Sarnia and
		Commerce
		City Refineries
		and Burrard
		Terminal uses
		secondary
		treatment
		systems such
		as activated
		sludge, Moving
		Bed Bio
		Reactor
		(MBBR) and
		Membranes
		bio reactor
		(MBR). These
		technologies
		help to remove
		some of the oil
		and grease,
		nitrates,
		phosphates,
		phenols and
		toxicity from



					the water. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 yr outlook on a corporate and facility level.
Primary treatment only	Relevant	66,034	This is our first year of measuremen t	81-90	Suncor has monitored all water treatment activities for years, but this is the first year of measurement and reporting against CDP guidance. Primary treatment involves the physical removal of suspended solids and floating



		material,
		typically by
		sedimentation.
		A preliminary
		treatment may
		often be
		applied
		involving the
		physical
		removal of
		large debris,
		large particles,
		oils, and
		grease,
		typically
		through
		screens and
		grit chambers.
		Suncor's only
		primary
		treatment is
		settling ponds,
		water is
		diverted to
		pond to allow
		settling of
		particles and
		testing prior
		discharge.
		This is mainly
		used for
		uncontaminate
		d surface run-
		off water
		(rainfall,
		snowmelt etc.).
		This method of
		treatment is
		applicable for
		numerous
		Suncor sites.
		Suncor has
		developed
		models and
		tools used to
		anticipate



					future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 yr outlook on a corporate and facility
Discharge to the natural environmen t without treatment	Not relevant				Wastewater discharge sent for deep-well disposal at Suncor's in situ site (Firebag) and Edmonton Refinery is classified as waste and is reported accordingly.
Discharge to a third party without treatment	Relevant	1,096	This is our first year of measuremen t	1-10	Suncor has monitored all water treatment activities for years, but this is the first year of measurement and reporting against CDP guidance. Discharge to a third party



					without treatment is
					domestic
					waste to city.
					There are a
					few Suncor
					sites where
					domestic
					sewage is sent
					to city sewer
					systems just
					like homes,
					and office
					building.
					Suncor has
					developed
					models and
					tools used to
					anticipate
					future trends in
					areas such as
					fresh water
					withdrawal,
					water recycled/
					reused, and
					wastewater
					production.
					Suncor uses a
					Sustainability
					Planning
					Forecast that
					estimates
					performance
					metrics over a
					10 yr outlook
					on a corporate
					and facility
					level.
Other	Relevant	20	This is our	Less than 1%	Suncor has
			first year of		monitored all
			measuremen		water
			t		treatment
					activities for
					years, but this
					is the first year



		of
		measurement
		and reporting
		against CDP
		guidance.
		Firebag and
		MacKay River
		in situ sites
		use recycled
		wastewater
		from our oil
		sands
		upgrading and
		utilities
		operations,
		surface run-off
		water collected
		within the
		facility boundary and
		-
		from
		groundwater
		wells. As a
		result, most of
		the water used
		at the site is
		recycled.
		Suncor has
		developed
		models and
		tools used to
		anticipate
		future trends in
		areas such as
		fresh water
		withdrawal,
		water recycled/
		reused, and
		wastewater
		production.
		Suncor uses a
		Sustainability
		Planning
		Forecast that
		estimates
		performance



	metrics over a
	10 yr outlook
	on a corporate
	and facility
	level.

#### 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**

Upstream

Water intensity value (m3)

0.36

Numerator: water aspect

Total water withdrawals

#### **Denominator**

Barrel of oil equivalent

#### Comparison with previous reporting year

Much lower

#### Please explain

In 2020, Suncor upstream total upstream water withdrawal intensity is 14% lower than 2019 mainly due to improved water efficiency at Base Plant; decreased production and water use at Fort Hills and in situ sites; zero ocean water intake at Terra Nova.

Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Data reported is sourced from direct measurements.

This metric is used to monitor our water use and success of process optimization strategies (ie. recycling, reuse, return strategies).



#### **Business division**

Upstream

#### Water intensity value (m3)

0.22

Numerator: water aspect

Total water consumption

#### **Denominator**

Barrel of oil equivalent

#### Comparison with previous reporting year

Much lower

#### Please explain

In 2020, Suncor upstream total water consumption intensity was 18% lower than 2019 mainly due to improved water efficiency at Base Plant; decreased production and water use at Fort Hills and in situ sites; zero consumption at Terra Nova.

Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form. Fresh and non-fresh water included. Data reported is sourced from direct measurements.

This metric is used to monitor our water use and success of process optimization strategies (ie. recycling, reuse, return strategies).

#### **Business division**

Midstream/Downstream

#### Water intensity value (m3)

0.3

Numerator: water aspect

Total water withdrawals

#### **Denominator**

Barrel of oil equivalent

#### Comparison with previous reporting year

Higher

#### Please explain

In 2020, Suncor's downstream total water withdrawal intensity was 6% higher than 2019 performance mainly due increased water withdrawals and decreased production at various facilities.



Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Data reported is sourced from direct measurements.

This metric is used to monitor our water use and success of process optimization strategies (ie. recycling, reuse, return strategies).

#### **Business division**

Midstream/Downstream

#### Water intensity value (m3)

0.03

#### Numerator: water aspect

Total water consumption

#### **Denominator**

Barrel of oil equivalent

#### Comparison with previous reporting year

Higher

#### Please explain

In 2020, Suncor's downstream total water consumption intensity was 8% higher than 2019 performance mainly due low precipitation rates in Montreal, Sarnia and Commerce City; decreased efficiency on sites; and more accurate water accounting.

Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form. Fresh and non-fresh water included. Data reported is sourced from direct measurements.

This metric is used to monitor our water use and success of process optimization strategies (ie. recycling, reuse, return strategies).

#### W1.4

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

Yes, our suppliers



#### W1.4a

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

#### Row 1

#### % of suppliers by number

76-100

#### % of total procurement spend

26-50

#### Rationale for this coverage

Suncor's supplier risk identification process begins with a pre-screening process through our prequalification tool, Avetta. This process ensures current and potential Contractors meet Suncor's minimum requirements in EH&S and regulatory, legal, quality and finance and sustainability.

Suncor has a Sustainability Supplemental which is used in the qualification and selection process. This supplemental is weighted at 15% of our overall qualification and includes questions related to: 1. Indigenous business,

- 2. Greenhouse gases and climate change
- 3. Community investment
- 4. Inclusion & diversity
- 5. Human Rights & Business Ethics

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

In 2020, 4,396 suppliers (which accounts for 90% of Suncor's suppliers) have subscribed to Suncor's prequalification program.

#### Comment

In 2018 Supply Chain Management (SCM) Sustainability formalized a SCM Sustainability Strategy. It was developed based on our materiality assessment. The process accounted internal and external inputs/material issues. This identified 6 priority areas for us and the systematic approach to gathering information based on risk at all step of our supply chain. The areas of focus are designed to progress sustainability strategy and align with our Corporate goals including Suncor's Social and GHG Goal.

#### W1.4b

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

Type of engagement

Other

**Details of engagement** 



#### Other, please specify

Water management and stewardship is integrated into supplier evaluation processes, and educate suppliers about water stewardship and collaboration.

#### % of suppliers by number

1-25

#### % of total procurement spend

1-25

#### Rationale for the coverage of your engagement

Maturing relationships with a diverse range of suppliers is important as we look to move our company and industry from supply arrangements that are transactional in nature to partnerships that are more strategic. Working together with our vast supply chain network, we are attempting to leverage our collective strengths to amplify innovation and drive sustainability performance.

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

To help facilitate the sharing of innovative practices, we brought together over 200 leaders from across Suncor's supply chain to participate in an interactive forum, called FORGE. The goal in organizing this event was to signal our intention to listen, learn, transform, co-create, innovate and accelerate sustainability and innovation together.

#### Comment

# W2. Business impacts

#### W2.1

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

#### 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.

#### Row 1

#### **Total number of fines**

1



#### Total value of fines

#### % of total facilities/operations associated

9

#### Number of fines compared to previous reporting year

About the same

#### Comment

In 2020, one incident occurred at Terra Nova's floating production storage and offloading (FPSO) vessel. This was reported to the regulator and is still under investigation. In our East Coast Canada operations, water is either produced offshore through desalination, or is transferred via vessel from St. John's, N.L. On an annual basis, a cross-functional East Coast team reviews the produced water performance and evaluates options for chemical minimization and substitution where feasible. This helps to ensure effective operation of the produced water system, the floating production storage and offloading (FPSO) vessel, and reservoir integrity. The Terra Nova FPSO has been shut in since the end of 2019. In 2021, co-owners have reached an agreement in principle to restructure the project ownership and provide short-term funding toward continuing the development of the Asset Life Extension Project, with the intent to move to a sanction decision in fall 2021.

## W3. Procedures

#### 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 pollutants of concern are identified and monitored as per our approval conditions (i.e. Alberta's Environmental Protection and Enforcement Act or the US Environmental Protection Agency). Suncor also identifies and classifies potential water pollutants through Environmental Impact Assessments (EIAs) that are completed for projects, along with regional monitoring and reporting requirements.

During an EIA, all potentially detrimental pollutants are identified and managed throughout the life of the project. Additionally, Suncor follows the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for all upstream authorizations.

The method used to identify potential water pollutants is based on established reporting and monitoring standards, along with published research on baseline and/or natural levels of pollutants in the regions where we operate.

Potentially Impacted parties could include:



- Communities in the region of operation
- Municipalities
- Employees
- Wildlife and aquatic species

The potential water-related impacts on ecosystems and human health caused by potential pollutants are managed through risk assessments along with established monitoring and reporting requirements. Impacts are assessed in terms published toxicity levels or baseline metrics. Water sources/water supplies in regions of operations are monitored regularly to test for various metrics (pollution).

# 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
Hydrocarbo	Upstream Midstream/Downstre am	I.e. Natural gas and fuels / petroleum products Upstream impacts: the potential for spills into water bodies near the operation where hydrocarbons are used and/or extracted/produced/refin ed. Downstream impacts: water contamination (groundwater) from pump malfunction or underground storage of hydrocarbons  The scale and magnitude is dependent upon various factors, such as the size, location, concentration, etc. of the pollutant (hydrocarbon).	Compliance with effluent quality standards Measures to prevent spillage, leaching and leakages Community/stakehol der engagement Emergency preparedness Other, please specify Monitoring	Suncor complies with effluent quality standards in each region of operation established by the regulator. We are required to report all spills as per approval conditions. The Environmental Health and Safety department has Spill Response Plans and Policies in place for each business unit, where



	and Park I.
	applicable.
	The
	Stakeholder
	relations
	group is
	required to
	contact and
	inform key
	stakeholders
	that are
	relevant in
	situations
	where they
	may be or are
	potentially
	impacted.
	Crisis
	management
	and
	communicatio
	ns
	preparedness
	is controlled
	by the
	Environmental
	Health and
	Safety Group.
	They maintain
	a risk registry,
	which is part
	of the
	Suncor's
	Operational
	Excellence
	Management
	System. The
	management
	team is made
	up of
	members from
	the executive
	leadership
	team with
	various roles
	that tie
	different
	J



				business areas together. Each functional business area also has a response team with defined roles and responsibilitie s.
Chemicals	Upstream Midstream/Downstre am	I.e. Metals Upstream & Downstream: chemical pollutants from each business unit would have similar impacts on water ecosystems and human health. The scale and magnitude is dependent upon various factors, such as the size, location, concentration, etc. of the pollutant (chemical).	Compliance with effluent quality standards Measures to prevent spillage, leaching and leakages Community/stakehol der engagement Emergency preparedness	Suncor complies with National Pollutant Release Inventory Reporting (NPRI) Standards. The Stakeholder relations group is required to contact and inform key stakeholders that are relevant in situations where they may be or are potentially impacted. The Environmental Health and Safety department has Spill Response Plans and Policies in



		place for each
		place for each
		business unit
		where
		applicable.
		Crisis
		management
		and
		communicatio
		ns
		preparedness
		is controlled
		by the
		Environmental
		Health and
		Safety Group
		of Suncor.
		They maintain
		a risk registry,
		which is part
		of the
		Operation
		Excellence
		Management
		System. The
		management
		team is made
		up of
		members from
		the executive
		leadership
		team with
		various roles
		that tie
		different
		business
		areas
		together. Each
		functional
		business area
		also has a
		response
		team with
		defined roles
		and



				responsibilitie
Drilling fluids	Upstream	I.e. Synthetic-based fluid Upstream: potential leaching into groundwater/aquifer and contaminating water The scale and magnitude is dependent upon various factors, such as the size, location, concentration, etc. of the pollutant (chemical).	Compliance with effluent quality standards Measures to prevent spillage, leaching and leakages Community/stakehol der engagement Emergency preparedness	s.  Suncor is required to describe drilling fluids in project applications (i.e. Environmental Protection and Enhancement Act under the Provincial Regulator). The regulation also requires an operator to describe drilling fluid, waste disposal and surface runoff management. The Environmental Health and Safety department has Spill Response Plans and Policies in place for each business unit where
				Health and Safety department has Spill Response Plans and Policies in place for each business unit where applicable. Crisis management
				and communicatio ns preparedness is controlled by the



		Environmental
		Health and
		Safety Group
		of Suncor.
		They maintain
		a risk registry,
		which is part
		of the
		Operational
		Excellence
		Management
		System. The
		management
		team is made
		up of
		members from
		the executive
		leadership
		team with
		various roles
		that tie
		different
		business
		areas
		together. Each
		functional
		business area
		also has a
		response
		team with
		defined roles
		and
		responsibilitie
		S.

# W3.3

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

Yes, water-related risks are assessed

# W3.3a

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

# **Direct operations**



#### Coverage

Full

#### Risk assessment procedure

Water risks are assessed as part of an enterprise risk management framework

# Frequency of assessment

Annually

#### How far into the future are risks considered?

More than 6 years

#### Type of tools and methods used

Tools on the market Enterprise Risk Management International methodologies Databases Other

#### Tools and methods used

WRI Aqueduct
WWF Water Risk Filter
ISO 31000 Risk Management Standard
Environmental Impact Assessment
Regional government databases
Internal company methods
External consultants
Other, please specify
IPIECAs Global Water Tool for Oil and Gas

#### Comment

Suncor completed a comprehensive water risk assessment for all operations to assess risks such as stakeholder expectations, watershed issues and operational water use. Suncor's tools and methods include Policy and Regulatory Issues Management, Enterprise Risk Management (supporting third party tool Enablon), Materiality Review and the WWF Water Risk Filter/ IPIECA Global Water Tool for Oil and Gas. We also participate in regional watershed initiatives (Athabasca Watershed Council, LARP), to understand long-term watershed risks around water use and quality to inform our own corporate water strategy.

# Supply chain

# Coverage

**Partial** 

#### Risk assessment procedure

Other, please specify
Water/sustainability supplier risks



#### Frequency of assessment

Annually

# How far into the future are risks considered?

Up to 1 year

# Type of tools and methods used

Tools on the market Enterprise Risk Management Other

#### Tools and methods used

Other, please specify
Suncor's supplier sustainability supplemental associated with RFPs and pregualification processes

#### Comment

In 2020 Supply Chain Management added a sustainability risk to the enterprise risk register. Suncor defined the sustainability risk related to Supply Chain and identified all controls and solutions in place to mitigate the risk. The risk determined that if sustainable procurement practices were not integrated into the supply chain to address direct impact on suppliers and Indigenous communities from operations, Suncor may not meet stakeholder expectations and home country policies/regulations. Not meeting expectations can result in reputational, financial, and regulatory consequences related to brand image, inability to attract capital, and social license to operate. Suncor's supplier risk identification process begins with a pre-screening process through our prequalification tool, Avetta.

This assessment identified six priority areas for Suncor Supply Chain Management and provided us with the systematic approach to gathering information based on risk at every step of our supply chain. These areas of focus are designed to progress our sustainability strategy and are aligned with our Corporate goals including Suncor's Social Goal and our GHG Goal. The six areas are: 1. Indigenous Business Development 2. GHG Emissions 3. Inclusion and Diversity 4. Human Rights & Ethics 5. Community Investment 6. Water Stewardship

#### Other stages of the value chain

Coverage

None

Comment

# W3.3b

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



	Relevance &	Please explain
	inclusion	- I lease explain
Water availability at a basin/catchment level	Relevant, always included	Suncor has developed models and tools that help us to understand available water quantity and quality at the local level. This analysis involves risk assessment, sustainability forecasting and some business unit/regional level scenario analysis, which helps inform future business planning. However; these models/tools are being developed to capture basin level projections that would better inform local water risks. Suncor has evaluated water availability (total water withdrawal per capita) using the WWF Water Risk Filter.  Suncor participates in the Athabasca Watershed Council that is a basin wide collaborative effort to create a common understanding of the water management system, issues and opportunities across the Athabasca River Basin.
Water quality at a basin/catchment level	Relevant, always included	Suncor has developed models and tools that help us to understand available water quantity and quality at the local level. This analysis involves risk assessment, sustainability forecasting and some business unit/regional level scenario analysis, which helps inform future business planning. However; these models/tools are being developed to capture basin level projections that would better inform local water risks. Suncor has evaluated water quality (water quality index) using the WWF Water Risk Filter.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	Suncor actively engages with stakeholders with regards to water resources and these issues/risks are part of identified risks. Through discussions with Indigenous communities and stakeholders, we collaborate regularly on water-related issues and opportunities. We engage with local communities during the development of our water management plans and as projects progress. Operational changes to water systems at sites which trigger regulatory applications often requires stakeholder consultation as part of the review. Suncor includes stakeholder assessment and forecasting with regards to water resources at the local level in the ERM process.  Suncor is also a member of the Athabasca Watershed Council (AWC) — a watershed planning and advisory council that evaluates changes to the Athabasca watershed over time and works to advise on potential policy and management actions. The AWC is working on an Integrated Watershed Management Plan which will provide information, guidance and recommendations to the



		decision-making authorities, municipalities, Indigenous partners, natural resource managers, industries, academia, users, and residents regarding the Athabasca River watershed. In conjunction with Alberta's Water for Life Strategy (2003), it addresses the complexity of watershed management issues that transcend landscapes, ecosystems, jurisdictions, and water users in the Athabasca Watershed.
Implications of water on	Not relevant,	In 2020 Supply Chain Management added a sustainability
your key	included	risk to the enterprise risk register. Suncor defined the
commodities/raw	morada	sustainability risk related to Supply Chain and identified all
materials		controls and solutions in place to mitigate the risk. The risk
materiais		determined that if sustainable procurement practices were
		not integrated into the supply chain to address direct impact
		on suppliers and Indigenous communities from operations,
		Suncor may not meet stakeholder expectations and home
		·
		country policies/regulations. Not meeting expectations can
		result in reputational, financial, and regulatory
		consequences related to brand image, inability to attract
		capital, and social license to operate.
		Suncor's supplier risk identification process begins with a
		pre-screening process through our prequalification tool,
		Avetta. This process ensures current and potential
		Contractors meet Suncor's minimum requirements in EH&S
		and regulatory, legal, quality and finance and sustainability.
		In 2021 we added a Yellow Flag for suppliers that Suncor
		expects will have an annual spend of over 10 million
		dollars. These suppliers are now requested to have their
		own Supplier Code of Conduct.
		Sub-category strategies require sustainability risks and
		opportunities to be assessed at the earliest stages to
		develop a more sustainable approach to procurement of
		certain materials and services. As part of the Request for
		Proposal (RFP) process, Suncor has implemented a
		supplemental questionnaire that evaluates suppliers'
		sustainability journey relative to Suncor's priority areas.
		Responses from suppliers are reviewed and evaluated
		using an evaluation matrix that has specific weightings for
		each response.
		Supplier Performance Management (SPM) is stood up with
		specific suppliers to manage performance, ensure
		contractual compliance, drive safety performance, discuss
		sustainability initiatives and identify continuous
		improvement opportunities. Segmentation and tiering
		improvement opportunities. Segmentation and tiening



		provide guidance on which suppliers should be engaged in SPM activities.
Water-related regulatory frameworks	Relevant, always included	Suncor's internal issues management processes identify and help manage ecosystem, habitat and water-related risks and opportunities, including new or changing polices and regulations related to water. Our approvals require us to monitor and assess ecosystem impacts in the watersheds where we operate.  All of Suncor's operational sites have an operating regulatory approval with limits which typically require monthly and annual reporting to regulatory agencies. Our enterprise risk management system (ERM) and Policy and Regulatory Issue's Management process (PRIM) identify changes to water policy and regulations that are further evaluated for operational / business impacts. Suncor monitors future potential regulatory changes at the federal, provincial/state, and municipal level to understand how these changes could impact operations. Suncor also monitors regulations in other jurisdictions and evaluates potential impacts, timing and risk.
Status of ecosystems and habitats	Not relevant, explanation provided	Suncor monitors and assesses ecosystem impacts in the watersheds in which it operates in on a local level. Our enterprise risk management system (ERM) and Policy and Regulatory Issue's Management (PRIM) identify and helps manage ecosystems, habitat, and water related risks. For some operational sites there is greater and more extensive basin impact monitoring. In the Athabasca watershed, Suncor contributed to a regional monitoring of cumulative effects program that spends \$50M dollars per year monitoring impact on the ecosystem. Suncor participates in the Athabasca Watershed Council, a multi-stakeholder, not-for-profit watershed planning and advisory council that that evaluates changes to the Athabasca watershed over time and works to advise on potential policy and management actions. In conjunction with Alberta's Water for Life Strategy (2003), it addresses the complexity of watershed management issues that transcend landscapes,



		ecosystems, jurisdictions, and water users in the Athabasca Watershed.
Access to fully- functioning, safely managed WASH services for all employees	Relevant, always included	For all of Suncor's sites we have WASH services for all employees. Suncor's operations are in developed countries which all have requirements for worker health and safety as well as water and sanitation provision. Monitoring is required at both the global/national level and at the facility level as per national policies and standards for WASH. The standards cover: water quality, water quantity, water facilities and access to water, wastewater treatment and disposal and other environmental issues.
Other contextual issues, please specify		

# W3.3c

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

	Relevance & inclusion	Please explain
Customers	Relevant, always included	As part of Suncor's Water Management-Stakeholder Engagement Plans, customers are considered as a component of overall water risk assessment. A potential risk that has been considered in this assessment is reputational risk (part of the Enterprise Risk Management process) on Suncor's brand with regards to water has been evaluated as a component of the overall water risk assessment file. Customers are informed of water-related risks through the annual Report on Sustainability and various third-party Environmental, Social and Governance (ESG) disclosure platforms. We engage with a wide range of diverse stakeholders to consider their issues and concerns about our operations and the effects of proposed development. This includes working together to mitigate potential social, environmental, and economic impacts, and ensuring that local communities benefit from development. We engage with stakeholders in multiple ways, including meetings, workshops, and conferences.
Employees	Relevant, always included	As part of Suncor's Water Management-Stakeholder Engagement Plans, the evaluation includes employee impact on execution of water management on-site. This included aspects of roles and accountability, complexity and experience. Employees are informed of water-related risks through the annual Report on Sustainability and various third-party Environmental, Social and Governance (ESG) disclosure



		platforms. We engage with a wide range of diverse stakeholders to consider their issues and concerns about our operations and the effects of proposed development. This includes working together to mitigate potential social, environmental, and economic impacts, and ensuring that local communities benefit from development. We engage with stakeholders in multiple ways, including meetings, workshops, and conferences.
Investors	Relevant, always included	As part of Suncor's Water Management-Stakeholder Engagement Plans, investors or investment organizations have been identified as stakeholders as part of our risk assessment framework. Investors are informed of water-related risks through the annual Report on Sustainability and various third-party Environmental, Social and Governance (ESG) disclosure platforms. We engage with a wide range of diverse stakeholders to consider their issues and concerns about our operations and the effects of proposed development. This includes working together to mitigate potential social, environmental, and economic impacts, and ensuring that local communities benefit from development. We engage with stakeholders in multiple ways, including meetings, workshops, and conferences.
Local communities	Relevant, always included	As part of Suncor's Water Management-Stakeholder Engagement Plans, local communities have been identified and included in Suncor's water risk assessment for the majority of our operational sites. Local communities located in regions where we operate are consulted prior to and throughout a project. Consultation covers a broad set of issues, water-related issues and risks included. We aim to inform local communities of the water-related risks and the processes we have in place to mitigate these. Communities are also informed of water-related risks through the annual Report on Sustainability and various third-party Environmental, Social and Governance (ESG) disclosure platforms. We engage with a wide range of diverse stakeholders to consider their issues and concerns about our operations and the effects of proposed development. This includes working together to mitigate potential social, environmental, and economic impacts, and ensuring that local communities benefit from development. We engage with stakeholders in multiple ways, including meetings, workshops, and conferences.
NGOs	Relevant, always included	NGOs have been identified and included in Suncor's water risk assessment for the majority of our operational sites. Primary areas of focus are related to cumulative impacts of industrial development, with emphasis on low flow water withdrawal of the



		Athabasca River and water issues as they relate to tailings management. Suncor continues to discuss opportunities with NGOs related to priority areas. We engage with a wide range of diverse stakeholders to consider their issues and concerns about our operations and the effects of proposed development. This includes working together to mitigate potential social, environmental, and economic impacts, and ensuring that local communities benefit from development. We engage with stakeholders in multiple ways, including meetings, workshops, and conferences.
Other water users at a basin/catchment level	Relevant, always included	Some other local water users have been identified as stakeholders that do not fall into the major categories. These would include parties who depend on the same basin/catchment from where we withdrawal water for our operations. We engage with a wide range of diverse stakeholders to consider their issues and concerns about our operations and the effects of proposed development. This includes working together to mitigate potential social, environmental, and economic impacts, and ensuring that local communities benefit from development. We engage with stakeholders in multiple ways, including meetings, workshops, and conferences.
Regulators	Relevant, always included	Regulators have been identified and included in Suncor's water risk assessment for the majority of our major operational sites. Outside of water risk assessment, Suncor has extensive contact with regulators about all our operations. Environmental data typically requires monthly and annual reporting to regulatory agencies. We engage with a wide range of diverse stakeholders to consider their issues and concerns about our operations and the effects of proposed development. This includes working together to mitigate potential social, environmental, and economic impacts, and ensuring that local communities benefit from development. We engage with stakeholders in multiple ways, including meetings, workshops, and conferences.
River basin management authorities	Relevant, always included	Suncor collaborates with river basin management authorities, our operations in North America have to follow government jurisdictions for the specific basins. They are not authorities, but what we term as a council of all watershed users. We engage with a wide range of diverse stakeholders to consider their issues and concerns about our operations and the effects of proposed development. This includes working together to mitigate potential social, environmental, and economic impacts, and ensuring that local communities benefit from development. We engage with stakeholders in multiple ways, including meetings, workshops, and conferences.



Statutory special interest groups at a local level

Relevant, always included Indigenous communities have been identified as key stakeholders and included in Suncor's overall water risk assessment. Beyond commitments outlined in our policies, we also have agreements with 11 Indigenous communities near our operations, including the Regional Municipality of Wood Buffalo in Alberta and Sarnia, Ontario. These agreements reflect how we work together on a range of matters from project consultation to realizing the benefits of commercial and business opportunities, as well as supporting skills, employment and training programs.

In some cases, concerns with fossil fuel development amongst Indigenous communities stems from the value attributed to natural water sources, and the cumulative impacts on industry on local watersheds. We're continually learning about Indigenous ways of knowing and are evolving our practices to improve relationships. In 2019, we began a process to evolve the social goal by taking the time to reflect on our accomplishments, the work ahead of us and the valuable lessons we've learned. We've evolved the social goal to the "Journey of Reconciliation" and through both metrics and a more concentrated focus on shared experience and storytelling, we hope to provide a more complete picture of the impact and the progress we're making. Feedback from coworkers, Indigenous communities and partners, taught us that our relationships with Indigenous Peoples is constantly evolving we will always be learning about and from Indigenous perspectives and applying what is learned to how we live and work. One way we measure the effectiveness of our efforts is through the Canadian Council for Aboriginal Business (CCAB) Progressive Aboriginal Relations (PAR) program. In September 2020, we were PAR-certified at a gold level for the second time. PAR is Canada's only certification program focused on best practices in Aboriginal relations.

Suncor is also part of the Athabasca Watershed Council, which is a multi-stakeholder working group to bring together management plans and strategies for the Athabasca specifically. We engage with a wide range of diverse stakeholders to consider their issues and concerns about our operations and the effects of proposed development. This includes working together to mitigate potential social, environmental, and economic impacts, and ensuring that local communities benefit from development. We engage with



		stakeholders in multiple ways, including meetings, workshops, and conferences.
Suppliers	Relevant, sometimes included	In 2020 Supply Chain Management added a sustainability risk to the enterprise risk register. Suncor defined the sustainability risk related to Supply Chain and identified all controls and solutions in place to mitigate the risk. The risk determined that if sustainable procurement practices were not integrated into the supply chain to address direct impact on suppliers and Indigenous communities from operations, Suncor may not meet stakeholder expectations and home country policies/regulations. Not meeting expectations can result in reputational, financial, and regulatory consequences related to brand image, inability to attract capital, and social license to operate. We engage with a wide range of diverse stakeholders to consider their issues and concerns about our operations and the effects of proposed development. This includes working together to mitigate potential social, environmental, and economic impacts, and ensuring that local communities benefit from development. We engage with stakeholders in multiple ways, including meetings, workshops, and conferences.
Water utilities at a local level	Relevant, sometimes included	Water utilities at a local level are evaluated as part of water risk assessments at this time as part of each projects Environmental Impact Assessment (EIA). Anticipated effects on the environment of a proposed development or project are measured and design measures or other relevant mitigation measures are used to reduce or avoid those effects (i.e. resource use, water quality/availability and environmental setting). We engage with a wide range of diverse stakeholders to consider their issues and concerns about our operations and the effects of proposed development. This includes working together to mitigate potential social, environmental, and economic impacts, and ensuring that local communities benefit from development. We engage with stakeholders in multiple ways, including meetings, workshops, and conferences.
Other stakeholder, please specify	Relevant, sometimes included	Multi-stakeholder organizations such as Ceres, have been identified as stakeholders as part of our risk assessment framework. Suncor has had workshops with multiple stakeholders on the development of our post-2016 Sustainability Goals.

# **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.



Suncor has an established Enterprise Risk Management Program (ERM) and an Operational Excellence Management System (OEMS) both of which support effective and efficient risk management across the organization. This requires ongoing identification, assessment, treatment and monitoring of risks inherent to our assets, activities and operations. Our risk management program is aligned with the ISO 31000 Risk management. The guidelines provide principles, a framework and a process for managing risk. Our risk management practice is governed by our Risk Management Policy and supported through tools such as Risk Management Standards and a Risk Matrix to effectively identify and assess risk across the enterprise. Principal risks are generally considered those that have the potential to materially impact our ability to meet or support our business strategy, which can be assessed on a shortterm (1-3 years) or long-term (> 10 years) horizon. Once identified, risks are then entered into a third party tool called Enablon which then are assessed and evaluated in terms of magnitude of impact and likelihood using a risk-matrix tool. This allows employees to consistently assess risks and evaluate the consequence and likelihood of risk events. It also helps assign different levels of residual risk based on the following health and safety, environment, regulatory, reputational and financial impact. To ensure holistic development and sustainment of physical assets, we incorporate environmental and social aspects such as water use, air emissions, energy use, human rights, stakeholder and Indigenous relations into new projects. Screening assessments help translate relevant social or environmental impacts as potential project risks. For example, climate change implications are considered early in the asset development process, which ensures climate change risks and opportunities are well understood. From a decision-making perspective, this process allows asset development options to be analyzed from both a technical and sustainability perspective.

In order to identify water-related risks within Suncor's direct operations and other stages of the value chain, Suncor has created an integrated Policy and Regulatory Issues Management (PRIM) process which drives a disciplined approach to manage direct and indirect activities to influence policies and ensure they are consistent with our water policy and water commitments. PRIM is a coordinated, anticipatory approach for identifying, monitoring and managing the key environmental, economic, and social issues considered most critical to Suncor and its external stakeholders. Under PRIM, Suncor has a Water Network to identify and manage water-related issues and meets regularly as water-related policies, regulations and issues emerge. PRIM aims to achieve a heightened level of preparedness and enable individuals to align on issue treatment and communications in order to better identify and address key threats and opportunities, through an efficient and proactive framework and centralized resource inventory.

A significant effort has been placed around identifying sustainability risks with our suppliers. In 2020 Supply Chain Management added a sustainability risk to the enterprise risk register. Suncor defined the sustainability risk related to Supply Chain and identified all controls and solutions in place to mitigate the risk.



# W4. Risks and opportunities

# W4.1

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

Yes, only within our direct operations

# W4.1a

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

Suncor uses an enterprise-wide risk management system (ERM) to assess and define risk. Like most ERM systems it uses a matrix that determines the consequence of a risk and the likelihood of it occurring. There are six (6) consequence and likelihood categories. The ERM assign risks a ranking from I to IV for economic, environmental and social. Social is further broken down into health & safety, reputation and regulatory with guidance. Suncor defines substantive risks that are risked rank at II or I; to define substantive change for the purpose of this assessment; an economic value of \$10M was used. This includes direct financial costs and lost opportunity value (LOV). Examples of impacts considered include regulatory, environment, health and safety, reputation, and financial.

# W4.1b

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

	Total number of facilities exposed to water risk	% company- wide facilities this represents	Comment
Row 1	11	100	For more information on Suncor's operations please visit: https://sustainability.suncor.com/en/our-business/operations-summary

# W4.1c

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



Mackenzie River

# Number of facilities exposed to water risk

4

# % company-wide facilities this represents

26-50

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

26-50

# % company's total global revenue that could be affected

41-50

#### Comment

These facilities make up our primary oil sands operations and include:

- Oil sands Base plant
- · Oil sands Fort Hills
- In situ operations; Firebag & MacKay River

# Country/Area & River basin

Canada

St. Lawrence

# Number of facilities exposed to water risk

4

# % company-wide facilities this represents

26-50

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

26-50

# % company's total global revenue that could be affected

51-60

# Comment

These facilities make up the majority of our Refining & Logistics operations and include:

- Sarnia Refinery
- · Montreal Refinery,
- · Montreal Sulphur Plant, and
- Ethanol Plant.

### Country/Area & River basin



Canada

Nelson River

# Number of facilities exposed to water risk

1

# % company-wide facilities this represents

1 - 25

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

1-25

# % company's total global revenue that could be affected

Less than 1%

#### Comment

This facility is one of the refineries included in our Refining & Logistics operations; Edmonton Refinery.

### Country/Area & River basin

Canada

Other, please specify Atlantic Ocean

# Number of facilities exposed to water risk

1

# % company-wide facilities this represents

1-25

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

1-25

# % company's total global revenue that could be affected

1-10

#### Comment

This facility is our off shore operation; situated off the east coast of Canada, we operate the Terra Nova Floating Production Storage and Offloading vessel. In 2021, co-owners have reached an agreement in principle to restructure the project ownership and provide short-term funding toward continuing the development of the Asset Life Extension Project, with the intent to move to a sanction decision in fall 2021.

### Country/Area & River basin



United States of America Mississippi River

# Number of facilities exposed to water risk

1

# % company-wide facilities this represents

1 - 25

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

1-25

# % company's total global revenue that could be affected

Less than 1%

#### Comment

This facility is one of the refineries included in our Refining & Logistics operations; Commerce City Refinery.

# Country/Area & River basin

Canada

Fraser River

# Number of facilities exposed to water risk

1

# % company-wide facilities this represents

Less than 1%

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

Less than 1%

# % company's total global revenue that could be affected

Less than 1%

#### Comment

Suncor's Burrard Terminal is located in Port Moody, British Columbia. This facility is included in our Refining & Logistics operations.

# 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/Area & River basin

Canada Mackenzie River

# Type of risk & Primary risk driver

Regulatory Regulatory uncertainty

#### **Primary potential impact**

Increased operating costs

# Company-specific description

In order to achieve mine closure and progress reclamation opportunities, a process for the safe release of treated water back to the environment is required in order to achieve timely mine closure (operational total fluids containment and long-term closure water quality). We require both federal regulations and provincial regulatory approval to release treated oil sands mine water to the environment within a certain timeframe. Indigenous communities and stakeholders have increased sensitivity about water release, concerns over water quality and quantity, health impacts, and impacts to local biodiversity. The lack of certainty increases risk to long term closure plans as currently constructed and the ability to manage both quantity and quality of water during operational phase of the projects.

#### **Timeframe**

4-6 years

#### Magnitude of potential impact

High

#### Likelihood

Likely

#### Are you able to provide a potential financial impact figure?

Yes, an estimated range

#### Potential financial impact figure (currency)

#### Potential financial impact figure - minimum (currency)

1,000,000,000

# Potential financial impact figure - maximum (currency)

2,000,000,000

#### **Explanation of financial impact**

If there is no water release policy and regulatory framework in place we are unable to treat and release oil sands mine water by our containment pinch-point which would require: \$2B-\$1B in investment in other water management projects, such as construction a water treatment plant, sub-surface injection options or building additional containment/water storage.



This would also extend the timeframe for reclamation and impact extraction efficiencies resulting in additional costs.

#### Primary response to risk

Other, please specify

Engage with regulators/policymakers, local communities, NGOs and the general public, improve monitoring and increase investment in new technologies and management alternatives.

### **Description of response**

Work with provincial and federal government and other stakeholders to ensure policy and regulation tools and mechanisms are in place to allow for the release of treated tailings water and help identify and fill gaps as required. Suncor along with 6 other operators has been engaging both Federal and Provincial technical and policy leaders for years to drive discussion towards certainty of regulatory tools for water return to the Athabasca River. Suncor and the other operators through Canada's Oil Sands Innovation Alliance have also been executing projects that will provide technical input into development of policy framework.

There is ongoing investment focused on optimizing water reduction and recycling opportunities, reducing the amount of water retained in tailings and confirming technical understanding and managing all water related impacts. Suncor's own water R&D as well as the technology sharing by 9 oil sands companies on water R&D through the Canadian Oil Sands Innovation Alliance (COSIA) is laying the foundation for further breakthroughs for the region on environmental performance. COSIA members have invested \$592 million in 273 contributed water technologies since 2012. In 2020, 86 active projects were underway through COSIA at a cost of \$319 million. As a result of this work, these projects have reduced freshwater use intensity at in situ operations by 44 per cent and reduced net water use intensity from the Athabasca River at mining operations by 22 per cent – all since 2012 and we continue to work on these numbers.

#### Cost of response

400,000,000

#### **Explanation of cost of response**

The estimated cost for the containment strategy is ~\$400 million of infrastructure investment. The execution of this strategy has resulted in a reduction of oil sands water withdrawal by 58% since 2007. There is ongoing investment focused on optimizing water reduction and recycling opportunities, reducing the amount of water retained in tailings and confirming technical understanding and managing all water related impacts.

# Country/Area & River basin

United States of America Mississippi River



#### Type of risk & Primary risk driver

Physical Increased water stress

# **Primary potential impact**

Increased operating costs

#### Company-specific description

According to the definition provided of water-stressed areas none of Suncor's assets operate in areas of high risk of water stress (<40% ratio of withdrawals to supply). However, Suncor's Commerce City refinery in Colorado operates in a region that is classified as moderate risk (medium-high stress, 20-40% ratio of withdrawals to supply) according to the World Resources Institute's Aqueduct Water Risk Atlas. Water management is a priority at Suncor and we will continue to monitor the status of the basin going forward while focusing on implementing industry-leading innovation at our facilities to reduce, recycle, reuse and return water.

The World Wildlife Fund's Water Risk Filter Tool and the World Resources Institute's Aqueduct Water Risk Atlas are tools Suncor uses to evaluate overall physical, regulatory and reputational risks at the watershed level. Both indicate that our Commerce City refinery in Colorado exists within a "medium-high" water stress region of the Mississippi River Basin.

#### **Timeframe**

1-3 years

#### Magnitude of potential impact

High

#### Likelihood

More likely than not

#### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

#### Potential financial impact figure (currency)

500,000,000

Potential financial impact figure - minimum (currency)

# Potential financial impact figure - maximum (currency)

# **Explanation of financial impact**

In order to be compliant with water regulations in the area of operation, the facility would have to update water permits and decrees.

# Primary response to risk

Other, please specify



Establish site-specific targets Infrastructure investment

#### **Description of response**

Ongoing assessment and updating water permits in the area of operations. Our Commerce City refinery uses both city water and collected groundwater for steam production and cooling, as well as to wash out the natural contaminants in crude oil, like salts and minerals, to prevent corrosion in our processing units. Much of this water is recycled for reuse at our facility, and the remaining portion is treated and discharged to local waterway, Sand Creek, under a permit issued by the Colorado Department of Public Health and Environment (CDPHE). In September 2012, stricter compliance criteria were set on the refinery discharge water, which became effecitve in January 2018. To meet the new criteria, the Commerce City refinery commissioned a \$65 million upgrade to our existing wastewater treatment facility. The upgrade was completed in December 2017 and leverages a unique technology called membrane ultrafiltration to treat and filter the water. Our facility is one of the first in North America to use this technology in treating refinery wastewater streams. Ongoing and future construction phases will enable us to strive to continuously improve our environmental performance as well as meet increasingly tightening regulations related to wastewater treatment and discharge.

#### Cost of response

6,000,000

#### **Explanation of cost of response**

Suncor is undertaking a process that provides correct definition-assessment of this water risk. As this process progresses understanding of the potential issues, the impact and mitigation will be determined. Costs associated with definition have been estimated at \$6M for the facility.

# Country/Area & River basin

Canada
Other, please specify
All basins where we operate

#### Type of risk & Primary risk driver

Regulatory

Increased difficulty in obtaining withdrawals/operations permit

#### **Primary potential impact**

Constraint to growth

#### Company-specific description

Increasing expectations from stakeholders on water management, operational requirements and performance may lead to the development or revision of provincial and federal water policy and regulation which may add additional restrictions and requirements for Suncor resulting in reputational and regulatory impacts. There is



growing awareness about the need for responsible industrial water management and concerns with potential effects on local watersheds (water quality and quantity). Locally, communities are becoming concerned with the cumulative impacts of large industrial operations on local watersheds, local drinking water quality and overall preservation of the aquatic ecosystems. More specifically, water is an important human right and an important element of Traditional Land Use expectations for Indigenous communities. Federal and provincial water quality/quantity policies and regulations are regularly reviewed and are increasing in rigour.

#### **Timeframe**

Current up to one year

# Magnitude of potential impact

Medium

#### Likelihood

More likely than not

#### Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

#### **Explanation of financial impact**

n/a

### Primary response to risk

Engage with regulators/policymakers

#### **Description of response**

Engage with regulators/policymakers, local communities and other stakeholders on the development of water related policies and regulations.

#### Cost of response

#### Explanation of cost of response



# W4.2c

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

Primary	Please explain			
reason				
Evaluation in progress	In 2020 Supply Chain Management added a sustainability risk to the enterprise risk register. Suncor defined the sustainability risk related to Supply Chain and identified all controls and solutions in place to mitigate the risk. The prequalification assessment in Avetta, our Supplemental included with RFP's and our sustainability assessment of our top suppliers is providing Suncor with a robust foundation of data and information as we progress the SCM strategy. We have undertaken a deeper assessment of our suppliers in the top 50% of our spend. This assessment included review of supplier's ESG reporting including Reports on Sustainability, Supplier Codes of Conduct and response to the CDP. The initial assessments of our top 50% spend have provided SCM sustainability with an indication of strengths and weaknesses within our supply chain as it relates to sustainability.  In addition to our Vendor Audit work, Suncor has a robust EH&S audit program as a part of our contractor EHS execution plans at site. As part of our internal management systems we meet with onsite contractors on a regular basis. We hold worksite audits and inspections, lodge inspections and provide toolbox meeting kits to guide EHS discussions with suppliers performing services on our sites. Suncor's senior leadership demonstrate commitment to safety at our sites through the regular participation in safety discussions with contractors, staff and suppliers. Safety reporting is included in our Supplier Performance Management tool.  Suncor's OEMS is the framework of controls designed to eliminate the causes of unplanned events and incidents. The OEMS includes a guideline on Contractor Management which establishes the processes and requirements for implementing a systematic contractor management program and a process for management goods and services. The objective of this guideline is to ensure that all purchased good meet quality standards while ensuring all services on conducted in a safe, environmentally sound and cost effective manner.			
	reason Evaluation			

# W4.3

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

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



# W4.3a

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

# Type of opportunity

Efficiency

#### **Primary water-related opportunity**

Improved water efficiency in operations

### Company-specific description & strategy to realize opportunity

Suncor's tactical water strategy for oil sands and in situ has resulted in a major improvement in water efficiency. All the projects executed reduced water use or make large quantities of water available for reuse. There is a Water Strategy Leadership Team that focuses on an integrated water management strategy for the site that addresses excess water stored in tailings and establishes water management principles and guidelines for water management. There is ongoing collaboration with industry partners to test drive multiple water technologies concurrently, enabling the partners to conduct more pilots than each could on their own, while sharing the risks and costs. An example of this work is The Water Technology Development Center (WTDC). Convened under COSIA, Suncor and the WTDC partners, Canadian Natural, Cenovus Energy Inc. (through its subsidiary Husky Oil Operations Ltd.) and CNOOC International developed the \$140 million Water Technology Development Centre, a first-of- its-kind demonstration site for oil sands project partner companies to test water treatment technologies at a commercial scale.

#### Estimated timeframe for realization

More than 6 years

### Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

**Explanation of financial impact** 



The improvement in water efficiency essentially allows Suncor to consistently use less than half of our annual water license allotment from the Athabasca River. Continuous improvement measures leverage an economic incentive to use less water.

# Type of opportunity

Other

# **Primary water-related opportunity**

Other, please specify
Collective active innovation

#### Company-specific description & strategy to realize opportunity

Suncor has been a leader in improving collaboration among industry peers through organizations such as COSIA. The SAGD produced water treatment pilot project with COSIA involves testing new water treatment technologies at Suncor's MacKay River steam assisted gravity drainage facility. There is a potential to improve the reliability and efficiency of in situ water treatment operations in an effort to reduce water usage.

#### Estimated timeframe for realization

4 to 6 years

# Magnitude of potential financial impact

Medium-high

#### Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

#### **Explanation of financial impact**

Suncor's own water R&D as well as the technology sharing by 9 oil sands companies on water R&D is laying the foundation for further breakthroughs for the region on environmental performance. For water alone, COSIA members have invested \$592 million in 273 contributed water technologies since 2012. In 2020, 86 active projects were underway through COSIA at a cost of \$319 million.



# W5. Facility-level water accounting

# W5.1

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

# Facility reference number

Facility 1

# Facility name (optional)

Oil Sands Base Plant

#### Country/Area & River basin

Canada

Mackenzie River

#### Latitude

57.0033

#### Longitude

-111.4661

#### Located in area with water stress

No

# Oil & gas sector business division

Upstream

# Total water withdrawals at this facility (megaliters/year)

59,735

# Comparison of total withdrawals with previous reporting year

Much higher

# Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

58,980

# Withdrawals from brackish surface water/seawater

0

# Withdrawals from groundwater - renewable

0

# Withdrawals from groundwater - non-renewable

755



#### Withdrawals from produced/entrained water

0

Withdrawals from third party sources

O

Total water discharges at this facility (megaliters/year)

29,090

Comparison of total discharges with previous reporting year

Much higher

Discharges to fresh surface water

28.900

Discharges to brackish surface water/seawater

0

Discharges to groundwater

O

Discharges to third party destinations

190

Total water consumption at this facility (megaliters/year)

30,645

Comparison of total consumption with previous reporting year

Higher

#### Please explain

Suncor's oil sands mining operations are located near Fort McMurray in Alberta. In 2020, Base Plant total water consumption was 50% higher than 2019. Water withdrawal increased by 89% due to less river water intake and increased precipitation (extremely high industrial run-off). Water discharges increased by 160% due to improved water efficiency, water recycle rates and increased run off volumes. Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Total water return is water leaving organization's boundary and released to surface water, groundwater or to third parties. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.



# Facility reference number

Facility 2

# Facility name (optional)

In Situ Firebag

# Country/Area & River basin

Canada

Mackenzie River

#### Latitude

57.2297

#### Longitude

-110.8325

#### Located in area with water stress

No

# Oil & gas sector business division

Upstream

# Total water withdrawals at this facility (megaliters/year)

1,810

# Comparison of total withdrawals with previous reporting year

Lower

# Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

960

#### Withdrawals from brackish surface water/seawater

0

# Withdrawals from groundwater - renewable

0

# Withdrawals from groundwater - non-renewable

800

# Withdrawals from produced/entrained water

# Withdrawals from third party sources

50

# Total water discharges at this facility (megaliters/year)

840



# Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

780

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

60

Total water consumption at this facility (megaliters/year)

970

Comparison of total consumption with previous reporting year

About the same

### Please explain

Suncor's oil sands in situ operations are located near Fort McMurray in Alberta. In 2020, Firebag total water consumption was about the same (-3%) as 2019. Water withdrawal decreased by 6% and water discharges decreased by 9% due to less river water intake required for site operations. Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Produced water is not included. Total water return is water leaving organization's boundary and released to surface water, groundwater or to third parties. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 yr outlook on a corporate and facility level.

# Facility reference number

Facility 3

Facility name (optional)

In Situ MacKay River

Country/Area & River basin



Canada

Mackenzie River

#### Latitude

57.03347

### Longitude

-111.88712

#### Located in area with water stress

No

#### Oil & gas sector business division

Upstream

# Total water withdrawals at this facility (megaliters/year)

356

# Comparison of total withdrawals with previous reporting year

Much higher

# Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

27

# Withdrawals from brackish surface water/seawater

0

# Withdrawals from groundwater - renewable

O

# Withdrawals from groundwater - non-renewable

329

# Withdrawals from produced/entrained water

# Withdrawals from third party sources

ი

# Total water discharges at this facility (megaliters/year)

24.5

# Comparison of total discharges with previous reporting year

Much higher

# Discharges to fresh surface water

0

# Discharges to brackish surface water/seawater

0



#### Discharges to groundwater

0

### Discharges to third party destinations

24

# Total water consumption at this facility (megaliters/year)

340

### Comparison of total consumption with previous reporting year

Much higher

#### Please explain

Suncor's oil sands in situ operations are located near Fort McMurray in Alberta. In 2020, MR total water consumption was 36% higher than 2019. Water withdrawal was 37% higher due to increased requirement for steam for site ramp up activities after an incident in Dec 2019. The incident also caused water discharges to increase by 122% becuase additional volumes were sent for disposal. Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Produced water is not included. Total water return is water leaving organization's boundary and released to surface water, groundwater or to third parties. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 yr outlook on a corporate and facility level.

# Facility reference number

Facility 4

#### Facility name (optional)

Montreal Refinery

# Country/Area & River basin

Canada

St. Lawrence

#### Latitude

45.50806

#### Longitude

-73.57111



#### Located in area with water stress

No

### Oil & gas sector business division

Midstream/Downstream

Total water withdrawals at this facility (megaliters/year)

5,390

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

5,230

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

160

Total water discharges at this facility (megaliters/year)

4 460

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

4,300

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

160

Total water consumption at this facility (megaliters/year)

930



#### Comparison of total consumption with previous reporting year

Much higher

### Please explain

Suncor operates refineries in Alberta, Ontario and Quebec, Canada, and in Colorado, USA. In 2020, Montreal refinery total water consumption was 97% higher than 2019, explained by flowmeter calibration issue. Water withdrawal decreased by 2% due to less river water intake (5% decrease in production) and lower industrial run-off. Water discharges decreased by 14% becuase of refinery production and less precipitation. Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Total water return is water leaving organization's boundary and released to surface water, groundwater or to third parties. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.

#### Facility reference number

Facility 5

#### Facility name (optional)

Sarnia Refinery

# Country/Area & River basin

Canada

St. Lawrence

# Latitude

42.9306

#### Longitude

-82.4433

# Located in area with water stress

No

#### Oil & gas sector business division

Midstream/Downstream

#### Total water withdrawals at this facility (megaliters/year)

38,727



# Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

37.718

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

5

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

1,004

Total water discharges at this facility (megaliters/year)

37,824

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

37,824

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

904

Comparison of total consumption with previous reporting year

Much higher

#### Please explain

Suncor operates refineries in Alberta, Ontario and Quebec, Canada, and in Colorado, USA. In 2020, Sarnia refinery total water consumption increased due to improved water accounting. Water withdrawal increased by 12% due to more river water intake required for cooling and increased water taken from third party sources. This also lead to



increased water discharges by 8%. Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Total water return is water leaving organization's boundary and released to surface water, groundwater or to third parties. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.

## Facility reference number

Facility 6

## Facility name (optional)

Renewables - St. Clair Ethanol Plant

#### Country/Area & River basin

Canada

St. Lawrence

# Latitude

42.9294

#### Longitude

-82.4381

#### Located in area with water stress

Nο

# Oil & gas sector business division

Midstream/Downstream

# Total water withdrawals at this facility (megaliters/year)

889

#### Comparison of total withdrawals with previous reporting year

Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater



0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

889

Total water discharges at this facility (megaliters/year)

85

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

85

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

803

Comparison of total consumption with previous reporting year

Much lower

#### Please explain

Suncor operates Canada's largest ethanol facility — the St. Clair Ethanol Plant in the Sarnia-Lambton region of Ontario. In 2020, St. Clair Ethanol Plant experienced 16% lower production than 2019. As a result, total water consumption, water withdrawal and water discharges decreased by 13%. Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Total water return is water leaving organization's boundary and released to surface water, groundwater or to third parties. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not



returned to its proximate source or no longer available in its original form. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.

## Facility reference number

Facility 7

#### Facility name (optional)

**Edmonton Refinery** 

# Country/Area & River basin

Canada

Nelson River

#### Latitude

53.55558

# Longitude

-113.33275

# Located in area with water stress

No

# Oil & gas sector business division

Midstream/Downstream

## Total water withdrawals at this facility (megaliters/year)

3,961

## Comparison of total withdrawals with previous reporting year

About the same

# Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

2,276

### Withdrawals from brackish surface water/seawater

0

## Withdrawals from groundwater - renewable

0

## Withdrawals from groundwater - non-renewable

n

# Withdrawals from produced/entrained water



0

#### Withdrawals from third party sources

1,685

# Total water discharges at this facility (megaliters/year)

1,144

# Comparison of total discharges with previous reporting year

Lower

# Discharges to fresh surface water

978

## Discharges to brackish surface water/seawater

0

#### Discharges to groundwater

0

# Discharges to third party destinations

166

# Total water consumption at this facility (megaliters/year)

2,817

#### Comparison of total consumption with previous reporting year

About the same

#### Please explain

Suncor operates refineries in Alberta, Ontario and Quebec, Canada, and in Colorado, USA. In 2020, Edmonton refinery total water consumption was about the same (+2%) as 2019. Water withdrawal was about the same (+4%) as 2019. Water discharges increased by 8% due to higher run off volumes and increased water sent to the municipal wastewater treatment plant . Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Total water return is water leaving organization's boundary and released to surface water. groundwater or to third parties. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.



## Facility reference number

Facility 8

## Facility name (optional)

Terra Nova FPSO

# Country/Area & River basin

Canada
Other, please specify
Atlantic Ocean

#### Latitude

46.2831

# Longitude

-48.2851

#### Located in area with water stress

Nο

## Oil & gas sector business division

Upstream

# Total water withdrawals at this facility (megaliters/year)

0

# Comparison of total withdrawals with previous reporting year

Much lower

# Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

# Withdrawals from brackish surface water/seawater

0

# Withdrawals from groundwater - renewable

0

# Withdrawals from groundwater - non-renewable

0

# Withdrawals from produced/entrained water

0

# Withdrawals from third party sources

0

## Total water discharges at this facility (megaliters/year)

0



#### Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

0

#### Comparison of total consumption with previous reporting year

Much lower

### Please explain

Suncor Energy operates Terra Nova located offshore approximately 350 kilometres southeast of Newfoundland and Labrador. Production at Terra Nova has been shut in since the fourth quarter of 2019, therefore no water use in 2020. Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Produced water is not included. Total water return is water leaving organization's boundary and released to surface water, groundwater or to third parties. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.

# Facility reference number

Facility 9

Facility name (optional)

Commerce City Refinery

Country/Area & River basin



United States of America Mississippi River

#### Latitude

39.80168

#### Longitude

-104.94698

#### Located in area with water stress

No

#### Oil & gas sector business division

Midstream/Downstream

# Total water withdrawals at this facility (megaliters/year)

3,340

# Comparison of total withdrawals with previous reporting year

Lower

# Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

50

#### Withdrawals from brackish surface water/seawater

0

## Withdrawals from groundwater - renewable

0

# Withdrawals from groundwater - non-renewable

970

# Withdrawals from produced/entrained water

0

## Withdrawals from third party sources

2,320

# Total water discharges at this facility (megaliters/year)

2,150

## Comparison of total discharges with previous reporting year

Lower

# Discharges to fresh surface water

2,150

## Discharges to brackish surface water/seawater

0



#### Discharges to groundwater

0

### Discharges to third party destinations

0

## Total water consumption at this facility (megaliters/year)

1,190

### Comparison of total consumption with previous reporting year

Lower

#### Please explain

Suncor operates refineries in Alberta, Ontario and Quebec, Canada, and in Colorado, USA. In 2020, Commerce City refinery total water consumption was about the same as (-2%) 2019. Water withdrawal decreased by 6% due due a reduction in remediation water pumping (reduction in production). Water discharges decreased by 8% due to lower flow from remediation wells to the wastewater treatment system. Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Total water return is water leaving organization's boundary and released to surface water, groundwater or to third parties. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.

## Facility reference number

Facility 10

#### Facility name (optional)

Montreal Sulphur Plant

# Country/Area & River basin

Canada

St. Lawrence

#### Latitude

45.639381

#### Longitude

-73.515457



#### Located in area with water stress

No

#### Oil & gas sector business division

Midstream/Downstream

Total water withdrawals at this facility (megaliters/year)

179

Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

154

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

25

Total water discharges at this facility (megaliters/year)

0

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

179



# Comparison of total consumption with previous reporting year

Higher

#### Please explain

Suncor operates its Montreal Sulphur Plant in Quebec, Canada. In 2020, the Sulphur plant total water consumption and water withdrawal was 8% higher than 2019. This was due to increased river water intake becuase of increased annual production. Water discharges remained consistent with 2019 performance. Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/ Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Total water return is water leaving organization's boundary and released to surface water, groundwater or to third parties. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level.

#### Facility reference number

Facility 11

## Facility name (optional)

Oil Sands Fort Hills

#### Country/Area & River basin

Canada

Mackenzie River

#### Latitude

57.39207

#### Longitude

111.56791

# Located in area with water stress

No

#### Oil & gas sector business division

Upstream

#### Total water withdrawals at this facility (megaliters/year)

18,822



#### Comparison of total withdrawals with previous reporting year

Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

17.269

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

1,553

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

981

Comparison of total discharges with previous reporting year

Much higher

Discharges to fresh surface water

858

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

123

Total water consumption at this facility (megaliters/year)

17.841

Comparison of total consumption with previous reporting year

Much lower

#### Please explain

Suncor's oil sands mining operations are located near Fort McMurray in Alberta. In 2020, FH water consumption was 45% lower than 2019. Water withdrawal decreased by 42% due to less river water intake because of a significant reduction in production and higher annual precipitation levels. Water discharges increased by 277% due to



increased industrial run off water. Thresholds: About the same(0%-5%), Low/High (6%-10%), Much low/Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Total water return is water leaving organization's boundary and released to surface water, groundwater or to third parties. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook.

## Facility reference number

Facility 12

## Facility name (optional)

**Burrard Terminal** 

# Country/Area & River basin

Canada

Fraser River

# Latitude

49.283

#### Longitude

-122.85

#### Located in area with water stress

Nο

### Oil & gas sector business division

Midstream/Downstream

#### Total water withdrawals at this facility (megaliters/year)

756

#### Comparison of total withdrawals with previous reporting year

Much higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

548

Withdrawals from brackish surface water/seawater



0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

208

Total water discharges at this facility (megaliters/year)

760

Comparison of total discharges with previous reporting year

Much higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

548

Discharges to groundwater

0

Discharges to third party destinations

213

Total water consumption at this facility (megaliters/year)

-5

Comparison of total consumption with previous reporting year

Much lower

#### Please explain

Suncor's Burrard Terminal is located in Port Moody, BC. In 2020, Burrard water consumption decreased by 145%. Water withdrawal increased by 22% due to higher annual precipitation levels and decreased water purchased from the municipality. Water discharges increased by 25% due to increased industrial run off water. Thresholds: About the same (0%-5%), Low/High (6%-10%), Much low/Much high (>11%). Data reported is sourced from direct measurements. Total water withdrawal is the removal or purchase of water from any source, permanently or temporarily. Fresh and non-fresh water included. Total water return is water leaving organization's boundary and released to surface water, groundwater or to third parties. Fresh water is characterized by a low TDS content for which limits are defined by regulation in the jurisdiction. Water consumption is the total water withdrawn minus water returned and reflects quantity of



water used and not returned to its proximate source or no longer available in its original form. Suncor has developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. To advance Suncor's goal to continue improving environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook.

# W5.1a

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

#### Water withdrawals - total volumes

#### % verified

76-100

# What standard and methodology was used?

This data is assured by Ernst & Young LLP as part of the publication of Suncor's Report on Sustainability. Their limited assurance procedures were planned and performed in accordance with the International Standard on Assurance Engagements ("ISAE") 3000 Assurance Engagements other than Audits or Reviews of Historical Financial Information". The assurance statement can be found in our Report on Sustainability. Suncor complies with provincial and federal regulatory standards for water monitoring which typically require monthly and/or annual reporting to regulatory agencies. The standards mandate specific technical methods and monitoring boundaries consistent with best practices.

#### Water withdrawals - volume by source

#### % verified

Not verified

# Water withdrawals - quality

#### % verified

Not verified

#### Water discharges – total volumes

#### % verified

Not verified

## Water discharges - volume by destination

#### % verified

Not verified



# Water discharges - volume by treatment method

% verified

Not verified

# Water discharge quality – quality by standard effluent parameters

% verified

Not verified

# Water discharge quality - temperature

% verified

Not verified

# Water consumption - total volume

% verified

Not verified

# Water recycled/reused

% verified

Not verified

# **W6.** Governance

# W6.1

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

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

# W6.1a

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

	Scope	Content	Please explain
Row	Company-	Description of water-	Our Environmental Health and Safety Policy states
1	wide	related performance	our belief that environmentally responsible operations
		standards for direct	are essential includes the responsible use of
		operations	water.We believe water is a shared and precious
		Commitment to align with	resource. It must be managed wisely using a
		public policy initiatives,	balanced, integrated and sustainable approach.
		such as the SDGs	
			Water is an essential part of Suncor's operations, so
			it's important we find ways to continuously improve



Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education

Commitment to water stewardship and/or collective action

Other, please specify

This is incoporated within Suncors Report on Sustainability under Water Stewardship and Taillings Management.

our water use efficiency (including limiting water withdrawals and maximizing optimizing recycling) and safely release water across our business units.

Recognizing our role in managing water responsibly, our water strategy principles focus on:

- 1. Shared value of water: Understanding that water is a valuable natural resource that holds environmental, social, cultural and economic value.
- 2. Watershed management: Understanding our water use in the context of the watershed where we operate, taking into consideration all values, stakeholders, and users in the watershed.
- 3. Reduce-Reuse-Release: A truly sustainable integrated water management approach must simultaneously balance water reduce-reuse and release considerations.
- 4. Integrated options analysis: Ensuring we balance the trade-offs inherent in managing water and understanding water as one aspect of an interconnected ecosystem.

Aligned with our purpose, our culture of operational discipline and continuous improvement guides how we manage our water use, reduce our impacts, and protect the environment. Suncor is committed to water stewardship in the areas where we operate and we continue to develop a framework that will allow us to more align with our strategic objectives and meaningfully focus our future water management efforts on those specific to each asset and the watersheds within which they operate.

# W6.2

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

# W6.2a

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

Position of Please explain individual



# Board-level committee

One of the Board's major duties is to review with management Suncor's objectives and goals and the strategies and plans for achieving them. The Board also monitors Suncor's progress toward its strategic goals and plans, and revises Suncor's direction where warranted.

The Board oversees Suncor's Enterprise Risk Management Program (the "ERM Program"). In accordance with this program, the CEO and senior management undertake an enterprise-wide process to identify, assess and mitigate significant risks. The Board undertakes an annual review of those risks identified by the ERM program as principal risks. The Board monitors risk management actions for these risks throughout the year. In addition to Board oversight of risk management efforts, each principal risk is mapped to a Board Committee or full Board, as appropriate. Environmental issues are mapped to the Environment, Health, Safety and Sustainable Development Committee of the Board, and this committee receives quarterly reports from management.

The Board is also responsible for ensuring Suncor has an effective strategic planning process, and on an annual basis reviews Suncor's annual business plan (including Suncor's annual capital budget) and in doing so endorses the strategies reflected in Suncor's long range plan. The Governance Committee provides assistance to the Board by annually assessing Suncor's planning and budgeting process.

# 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	Monitoring implementation and performance Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies	One of the Board's major duties is to review with management Suncor's objectives and goals and the strategies and plans for achieving them. The Board also monitors Suncor's progress toward its strategic goals and plans, and revises Suncor's direction where warranted.  The Board oversees Suncor's Enterprise Risk Management Program (the "ERM Program"). In accordance with this program, the CEO and senior management undertake an entity-wide process to identify, assess and mitigate significant risks. The Board undertakes an annual review of those risks identified by the ERM program as principal risks. The Board monitors risk management actions for these risks throughout the year. In addition to Board oversight of risk management efforts, each principal risk is mapped to a Board Committee or full Board,



	Reviewing and	as appropriate. Environmental issues are mapped
	•	
	guiding strategy	to the Environment, Health, Safety and Sustainable
	Setting performance	Development Committee of the Board, and this
	objectives	committee receives quarterly reports from
		management.
		The Board is also responsible for ensuring Suncor
		has an effective strategic planning process, and on
		an annual basis reviews Suncor's annual business
		plan (including Suncor's annual capital budget) and
		in doing so endorses the strategies reflected in
		Suncor's long range plan. The Governance
		Committee provides assistance to the Board by
		annually assessing Suncor's planning and
		budgeting process.

# W6.3

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

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

Chief Sustainability Officer (CSO)

# Responsibility

Both assessing and managing water-related risks and opportunities

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

Quarterly

#### Please explain

The Chief Sustainability Officer (CSO) reports directly to the CEO and President of Suncor. They have a direct link to the Environmental, Health, and Safety & Sustainable Development (EHS&SD) Committee of the Board of Directors, which includes quarterly meetings and reports.

The CSO is the highest-level management position below the board level where the most significant water-related issues ultimately are managed. The CSO has a direct link to the EHS&SD Committee, which is a committee of the Board of Directors. The EHS&SD Committee is in place to monitor the effectiveness and integrity of Suncor's internal controls as they related to operational risks of the corporation's physical assets, including water related risks, and other matters of the environment, health, safety and sustainable development. The EHS&SD Committee is also responsible for the review of the policies and practices of the Corporation respecting operational risks.



# W6.4

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

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	We incentivize water performance by progressing projects related to our water stewardship principles that focus on:  •water conservation  •reuse and recycle  •return of treated wastewater to the watershed These are reflected in the business unit "strategic initiatives" component of the AIP.

# W6.4a

# (W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Chief Sustainability Officer (CSO) Other, please specify Facility Managers, Business Unit Managers and Corporate Executive Team	Other, please specify Water related "strategic initiatives" projects	We incentivize water performance by progressing projects related to our water stewardship principles that focus on:  •water conservation  •reuse and recycle  •return of treated wastewater to the watershed  These are reflected in the business unit  "strategic initiatives" component of the AIP.
Non- monetary reward	Other, please specify Facility Managers, Business Unit Managers and Corporate Executive Team	Other, please specify Water related"growth" projects	Suncor Excellence Awards recognize and celebrate employees and contractors who demonstrate high-quality, innovative thinking at Suncor. From managing costs, risks, safety and reliability to minimizing our environmental impacts, nominees demonstrate what can be accomplished when we work together in a disciplined way.

# W6.5

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



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

# W6.5a

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

Suncor has created an integrated policy and regulatory issues management (PRIM) process which drives a disciplined approach to manage direct and indirect activities to influence policies and ensure they are consistent with our water policy and water commitments. PRIM is a coordinated, anticipatory approach for identifying, monitoring and managing the environmental, economic, and social issues considered most critical to Suncor and its external stakeholders. This includes a number of subcommittees, councils, forums and networks to prioritize and steer the right work across the company, influencing many decisions and actions Suncor takes on a daily basis.

The Water Network meets regularly as water-related policies, regulations and issues emerge. It allows us to influence policy in a strategic/tactical manner. Our Environmental Health and Safety Policy states our belief that environmentally responsible operations are essential including the responsible use of water. Suncor is committed to water stewardship and we are developing a robust framework that will focus our future efforts on water. Our production currently requires water use, and there is global concern about how water is used and managed. The current water focus is on integrated water management (water use, withdrawal and return). We use four principles to guide our integrated water management approach, include: Shared value of water, Watershed management, Reduce-Reuse-Return, Integrated options analysis.

# W6.6

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

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

2020-annual-report-en (2).pdf

Please refer to the Management's Discussion and Analysis Section - page 18-75 of the Annual Report.



# **W7. Business strategy**

# W7.1

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

	Are water- related issues integrated?	Long- term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	21-30	We believe water is a shared and precious resource. It must be managed wisely using a balanced, integrated and sustainable approach. Water is an essential part of Suncor's operations, so it's important we find ways to continuously improve our water use and safely release water from our operations. Recognizing our role in managing water responsibly, our water strategy principles focus on: Shared value of water; Watershed management; Reduce-Reuse-Release; Integrated options analysis. Water management is an integral part of our strategy. In May 2021, Suncor announced our updated strategy: To be Canada's leading energy company by growing our business in low GHG fuels, electricity, and hydrogen while sustaining and optimizing our existing hydrocarbon business and transforming our GHG footprint; all enabled by our expertise, long-life resources, integrated business model, strong connection to customers, and world-class environment, social and governance (ESG) performance including water targets. Our new strategy is underpinned by 6 strategic objectives: Grow returns on capital; Be a net-zero by 2050; Optimize our base business; Expand low emissions business; Grow our customer connection; Achieve world-class ESG performance. For more information, please visit: https://www.suncor.com/en-ca/about-us/strategy
Strategy for achieving long-term objectives	Yes, water- related issues are integrated	21-30	We believe water is a shared and precious resource. It must be managed wisely using a balanced, integrated and sustainable approach. Water is an essential part of Suncor's operations, so it's important we find ways to continuously improve our water use and safely release water from our operations. Recognizing our role in managing water responsibly, our water strategy principles focus on: Shared value of water; Watershed management; Reduce-Reuse-Release; Integrated options analysis.



			Water management is an integral part of our strategy. In May 2021, Suncor announced our updated strategy: To be Canada's leading energy company by growing our business in low GHG fuels, electricity, and hydrogen while sustaining and optimizing our existing hydrocarbon business and transforming our GHG footprint; all enabled by our expertise, long-life resources, integrated business model, strong connection to customers, and world-class environment, social and governance (ESG) performance. Our new strategy is underpinned by 6 strategic objectives: Grow returns on capital; Be a net-zero by 2050; Optimize our base business; Expand low emissions business; Grow our customer connection; Achieve world-class ESG performance. For more information, please visit: https://www.suncor.com/en-ca/about-us/strategy
Financial planning	Yes, water-related issues are integrated	21-30	We have developed models and tools used to anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production. We use a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level. Suncor also uses an annual price planning assumption process, which summarizes our rationale for long-run pricing assumptions and is used in the business plan and all economic evaluations. Outlooks for water prices and other economic related factors which contribute to the long term business objectives. Our water strategy principles focus on: Shared value of water; Watershed management; Reduce-Reuse-Release; Integrated options analysis. Water management is an integral part of our strategy. In May 2021, Suncor announced our updated corporate strategy. Supporting our strategy, our Operational Excellence goals are implemented through the goal setting and business planning processes, through which the organization confirms, adjusts and aligns its business direction. Those processes include review of long term business plans, establishment of capital and operating budgets, and goals translation. The intent is to establish the requirements for setting goals and targets and to develop associated business plans. Implementation of these requirements is intended to assist in ensuring expected contributions, priorities and deliverables are understood and followed throughout the organization.



# W7.2

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

#### Row 1

Water-related CAPEX (+/- % change)

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

Water-related OPEX (+/- % change)

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

# Please explain

Suncor's accounting system is not setup organizationally to attribute CAPEX and OPEX figures to water from across the company that meets the definitions provided by CDP in the guidance document. As such, any numbers Suncor would produce would be an estimate subject to significant error and not useful for a year over year comparison.

# W7.3

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

	Use of climate-related scenario analysis	Comment
Row 1	Yes	We use three energy future scenarios to 2050 (substantially based on the IHS Markit Autonomy, Rivalry and Discord scenarios) and a 2°C scenario to 2100 to test and assess the resiliency of our business strategy against inherent uncertainty. Suncor has developed models and tools that allow us to understand available water quantity and quality at the local level. This analysis involves risk assessment, sustainability forecasting and some business unit/regional level scenario analysis, which helps inform future business planning. However; these models/tools are being developed to capture basin level projections that would better inform local water risks. Suncor is actively working on understanding and integrating water related



	scenario analysis in the corporate climate related scenario analysis, which will
	help inform business strategy.

# W7.3a

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

No

# W7.4

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

#### Row 1

# Does your company use an internal price on water?

Yes

#### Please explain

Suncor's rationale for long-run pricing assumptions and is used in the business plan and all economic evaluations, including a price on water. Water management is an integral part of our strategy. In May 2021, Suncor announced our updated corporate strategy. Supporting our strategy, our Operational Excellence goals are implemented through the goal setting and business planning processes, through which the organization confirms, adjusts and aligns its business direction. Those processes include review of long term business plans, establishment of capital and operating budgets, and goals translation. The intent is to establish the requirements for setting goals and targets and to develop associated business plans. Implementation of these requirements is intended to assist in ensuring expected contributions, priorities and deliverables are understood and followed throughout the organization.

# **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	_	Approach to setting and monitoring targets and/or goals
Row	Business level	None are	Aligned with our purpose, our culture of operational discipline
1	specific targets	monitored at	and continuous improvement guides how we manage our
	and/or goals	corporate level	water use, reduce our impacts, and protect the environment.
			Suncor is committed to water stewardship in the areas where



Activity level specific targets and/or goals Site/facility specific targets and/or goals Basin specific targets and/or goals

we operate and we continue to develop a framework that will allow us to more align with our strategic objectives and meaningfully focus our future water management efforts on those specific to each asset and the watersheds within which they operate.

Targets and goals are influenced by Canada's Oil Sands Innovation Alliance (COSIA), whose members including Suncor are oil sands producers focused on accelerating the pace of improvement in environmental performance in Canada's oil sands through collaborative action and innovation.

Through COSIA we strive to contribute to achieving the alliance's two Water Performance Goals, which are focused on reducing freshwater use in the oil sands. The two targets in place include:

- Reduce freshwater use and intensity by 50% by 2022.
- Reduce the net water use intensity from the Athabasca River and its tributaries by 30% by 2022.

Suncor provides annual water data and future forecasted data for all sites that operate within the Athabasca River Basin. The COSIA working group monitors and reports annual progress towards these goals.

Targets and goals are addressed through multi-stakeholder working groups such as the Athabasca Watershed Council. For the Oil Sands Mining Water Management Agreement for 2019-2020, Suncor agreed to cumulatively limit withdrawals from the Athabasca River. Suncor set and stewarded towards net instantaneous withdrawals to align with the weekly flow triggers and cumulative water use limits of the Surface Water Quantity Management Framework (SWQMF).

Targets and goals are also influenced by the Alberta Energy Regulator's (AER) new oil sands directive, the Fluid Tailings Management for Oil Sands Mining Projects (Directive 085). This regulation includes tailings management plan application and tailings performance reporting requirements aligned with the government's Tailings Management Framework. This inventory is tracked through annual assessments and monitoring of bitumen production rates and fluid tailings treatment rates.

In Situ facilities targets and goals are also influenced by Alberta's Water Conservation and Allocation Policy and the Alberta Energy Regulator's Directive 081 during the design



	and operations of the facilities. The Policy and Directive
	require Suncor to continuously improve enhanced recovery
	methods and practices at our In Situ projects, while
	minimizing the use of high-quality non-saline water by
	recycling produced water efficiently and using alternative
	water sources where possible.

# **W9. Verification**

# W9.1

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

No, we do not currently verify any other water information reported in our CDP disclosure

# W10. Sign off

# W-FI

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

Forward-Looking Statements: These responses contain certain forward-looking statements and forward-looking information (collectively, forward-looking statements) based on Suncor's current expectations, estimates, projections and assumptions that were made by Suncor in light of information available at the time these responses were prepared. Some of the forwardlooking statements may be identified by words like "expected", "will", "estimates", "could", "anticipates", "intends", "may", "forecasts", "potential", "strategy", "goal", "objective", "outlook", "target" and similar expressions. Forward-looking statements in these responses include references to: the expectation that certain models developed by Suncor anticipate future trends in areas such as fresh water withdrawal, water recycled/ reused, and wastewater production; the expectation that, to continue improving our environmental performance, Suncor uses a Sustainability Planning Forecast that estimates performance metrics over a 10 year outlook on a corporate and facility level; the expectation that continued monitoring of the watersheds will help us adapt and continue to take appropriate actions to reduce our water footprint; the expectation that continued exploration and implementation of local initiatives will result in more efficient water use; the expectation that maturing relationships with a diverse range of suppliers is important as Suncor looks to move our company and industry from supply arrangements that are transactional in nature to partnerships that are more strategic and to leverage our collective strengths to amplify innovation and drive sustainability performance; the expectation that, if there is no water release policy and regulatory framework in place, we are unable to treat and release oil sands mine water by our containment pinch-point which would require \$2B-\$1B in investment in other water management projects, such as construction a water treatment plant, sub-surface injection options or building additional containment/water



storage, which would also extend the timeframe for reclamation and impact extraction efficiencies resulting in additional costs; the belief that ongoing and future construction phases at Commerce City will enable us to strive to continuously improve our environmental performance as well as meet increasingly tightening regulations related to wastewater treatment and discharge the expectation that produced water treatment pilot project with COSIA has potential to improve the reliability and efficiency of in situ water treatment operations in an effort to reduce water usage; our strategic goal to be Canada's leading energy company by growing our business in low GHG fuels, electricity, and hydrogen while sustaining and optimizing our existing hydrocarbon business and transforming our GHG footprint; the belief in the 6 strategic objectives of the new strategy: to grow returns on capital; to be a net-zero by 2050; to optimize our base business; to expand low emissions business; to grow our customer connection; and to achieve world-class ESG performance; the belief that our work toward understanding and integrating water related scenario analysis in the corporate climate related scenario analysis will help inform business strategy.

Forward-looking statements are not guarantees of future performance and involve a number of risks and uncertainties, some that are similar to other oil and gas companies and some that are unique to our company. Suncor's actual results may differ materially from those expressed or implied by our forward-looking statements and you are cautioned not to place undue reliance on them. Suncor's Management's Discussion & Analysis for the second quarter of 2021 and its most recently filed Annual Information Form/Form 40-F, Annual Report to Shareholders and other documents it files from time to time with securities regulatory authorities describe the risks, uncertainties, material assumptions and other factors that could influence actual results and such factors are incorporated herein by reference. Copies of these documents are available without charge from Suncor or by referring to the company's profile on SEDAR at sedar.com or EDGAR at sec.gov. Except as required by applicable securities laws, Suncor disclaims any intention or obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

# W10.1

# (W10.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	Martha Hall Findlay, Chief Sustainability Officer	Chief Sustainability Officer (CSO)

# W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

No



# **Submit your response**

# In which language are you submitting your response? English

# Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

## Please confirm below

I have read and accept the applicable Terms