

## Welcome to your CDP Water Security Questionnaire 2022

### W0. Introduction

#### W0.1

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

MEG is an energy company focused on sustainable in situ thermal oil production in the southern Athabasca oil region of Alberta, Canada. MEG is actively developing innovative enhanced oil recovery projects that utilize steam assisted gravity drainage ("SAGD") extraction methods to improve the responsible economic recovery of oil as well as lower carbon emissions. MEG transports and sells thermal oil (known as Access Western Blend or "AWB") to customers throughout North America and internationally. MEG owns a 100% working interest in approximately 410 square miles of mineral leases. GLJ Ltd. ("GLJ"), an independent qualified reserves and resources evaluator, estimated that the leases it had evaluated, as of December 31, 2021, contained approximately 2.0 billion barrels of gross proved plus probable ("2P") bitumen reserves at the Christina Lake Project. For information regarding MEG's estimated reserves contained in the report prepared by GLJ, please refer to the Corporation's most recently filed AIF, which is available on the Corporation's website at [www.megenergy.com](http://www.megenergy.com) and is also available on the SEDAR website at [www.sedar.com](http://www.sedar.com).

#### W-OG0.1a

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

Upstream



## W0.2

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

	Start date	End date
Reporting year	January 1, 2021	December 31, 2021

## W0.3

**(W0.3) Select the countries/areas in which you operate.**

Canada

## W0.4

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

CAD

## W0.5

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

Companies, entities or groups over which operational control is exercised

## W0.6

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

No



## W0.7

**(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?**

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, a Ticker symbol	MEG

## W1. Current state

### W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	Important	The availability of non-saline (fresh) water could impact MEG’s operating results and domestic water supply. The primary use of non-saline water in direct operations is for steam production. More than 95% of the water used for steam generation is treated and recycled produced water (that was previously injected into the reservoir as steam to heat bitumen) while the remaining 5% is make-up water. Produced water is composed of injected steam and water from the reservoir. Make-up water sources include saline and non-saline deep groundwater from hydrocarbon-bearing-formations unsuitable for human or agriculture use. Under the Alberta Water (Ministerial) Regulation, saline (brackish) groundwater is water that has total dissolved solids (TDS) > 4000 mg/L. Non-saline (freshwater) has TDS < 4000 mg/L. Secondary uses of non-saline water include 1) the withdrawal of shallow non-saline groundwater for domestic water supply (drinking/hygiene services to operations) and 2) the withdrawal of surface non-saline water for industrial purposes such as constructing ice roads, dust suppression and exploration drilling activities. The direct use importance rating selected



			<p>is “important” because MEG’s operations only require a small proportion of non-saline water and MEG operates in an area with adequate water supply. Also, facility changes could be made to reduce the need for non-saline water if required. MEG does not currently operate in water stressed areas (WRI Aqueduct tool). Future dependency is anticipated to decrease as reservoir technology development and optimization projects reduce water use intensities. The primary indirect use in the supply chain of good quality non-saline is for refining purposes. Sufficient amounts of water available for use is considered important to MEG’s supply chain. Potential water quality or quantity issues could impact refining capacity of refineries purchasing MEG products. The indirect future dependency is anticipated to remain the same..</p>
<p>Sufficient amounts of recycled, brackish and/or produced water available for use</p>	<p>Important</p>	<p>Important</p>	<p>The availability of saline (brackish) and produced water could impact MEG’s operating results. The primary use of saline water is steam production. More than 95% of the water used for steam generation is treated, recycled produced water (previously injected into the reservoir as steam to heat bitumen). The remaining 5% is make-up water. Produced water is composed of injected steam and water from the reservoir. Produced water is essentially a by-product of MEG’s process. Make-up water sources include saline and non-saline deep groundwater from hydrocarbon-bearing-formations that are unsuitable for human or agriculture use. Under the Alberta Water (Ministerial) Regulation, saline groundwater is water that has total dissolved solids (TDS) &gt; 4000 mg/L. Non-saline (freshwater) has TDS &lt; 4000 mg/L. MEG does not use any water from streams, rivers or lakes in its thermal operations. The importance rating for produced and non-saline water is considered “important” because an insufficient supply of produced water would impact MEG’s ability to generate steam and produce bitumen however other water sources could be accessed. The future dependency is anticipated to decrease as reservoir technology development optimization projects reduce water use intensities. Additionally, MEG currently operates in the Athabasca River Basin (Mackenzie River Basin sub-basin) where the overall water risk is Low to Medium Risk (1-2) as classified by the WRI Aqueduct tool. Therefore, MEG does not currently operate in water stressed areas. In terms of indirect use, sufficient amounts of these water sources available for use is considered important to MEG’s supply chain. The primary indirect use in the supply</p>



		chain of brackish and/or produced water is for refining purposes. Potential water quality or quantity issues could impact refining capacity of refineries purchasing MEG products. The indirect future dependency of these water sources is anticipated to remain then same.
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## W1.2

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

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	Water withdrawal volumes are measured at 100% of our operations (single facility, CLRP). No sites, facilities or water sources are excluded. Water use is an indicator of efficiency and MEG is required to measure the volume of all water withdrawals as regulated by the Alberta Energy Regulator (AER) and Alberta Environment & Parks (AEP). Various approvals under the EPEA, AER Directives, and Water Act Licenses outline monitoring, measuring and reporting requirements including withdrawal volumes, technical standards and frequencies. Measurement methods include metering as per AER Directives 17, 42. Measurement and reporting are conducted on various frequencies including continuous, daily, monthly, or annually depending on the source or activity. Water Act licenses include requirements for production rate, volume, water level and reporting. Surface water diversion is measured by the pump rate and truck capacity. Groundwater monitoring programs monitor usage..
Water withdrawals – volumes by source	100%	Water withdrawal volumes are measured at 100% of our operations (single facility, CLRP) at each source. No sites, facilities or water sources are excluded. Water use is an indicator of efficiency and MEG is required to measure the volume of all water withdrawals as regulated by the Alberta Energy Regulator (AER) and Alberta Environment & Parks (AEP). Various approvals under the EPEA, AER Directives, and Water Act Licenses outline monitoring, measuring and reporting requirements including withdrawal volumes, technical standards and frequencies. Measurement methods include metering as per AER Directives 17, 42. Measurement and reporting are conducted on various frequencies including continuous,



		daily, monthly, or annually depending on the source or activity. Water Act licenses include requirements for production rate, volume, water level and reporting. Surface water diversion is measured by the pump rate and truck capacity. Groundwater monitoring programs monitor usage.
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	100%	Produced volumes are measured at 100% of our operations, (single facility, CLRP). Produced water (withdrawal and injection) is regulated by the AER and AEP. Various approvals under the Environment Protection and Enhancement Act (EPEA), AER Directives, and Water Act Licenses outline monitoring, measuring and reporting requirements including withdrawal volumes, technical standards and frequencies. Measurement methods include metering as per AER Directives 17 and 42. Water Act licenses include requirements for production rate, volume, water level and quality and reporting. Produced water from emulsion production is separated. Produced water heading to the facility is continuously metered using magnetic and ultrasonic flow meters. Readings are monitored daily. Meters are calibrated in on an annual basis. Regular water quality monitoring is also conducted at the CLRP facility for various parameters (hardness, pH, turbidity etc.) to ensure water meets criteria for steam generation.
Water withdrawals quality	100%	Water withdrawal quality is measured at 100% of our operations (single facility, CLRP). No sites, facilities or water sources are excluded. Water use is an indicator of efficiency and water withdrawal quality is regulated by the AER and AEP Various approvals under EPEA, AER Directives, and Water Act Licenses outline monitoring, measuring and reporting requirements including technical standards and frequencies. Measurement and reporting are conducted on various frequencies including continuous, daily, monthly, or annually depending on the source or activity. Water Act licenses include requirements for production rate, water level and quality and reporting. Surface water diversion is measured by the pump rate and truck capacity. Groundwater monitoring programs are monitor usage and quality. Water quality monitoring is conducted at CLRP for parameters (hardness, pH, chloride). Water in the potable treatment plant is analyzed daily for parameters such as iron, chlorine, pH, and turbidity.



<p>Water discharges – total volumes</p>	<p>100%</p>	<p>Water discharge volumes are measured at 100% of our operations (single facility, CLRP). No sites, facilities or water sources are excluded. Water use is an important indicator of efficiency and water discharge is regulated by the AER and AEP. EPEA approvals, AER Directives, and Water Act Licenses outline monitoring, measuring and reporting requirements including technical standards and frequencies. Facility disposal water is collected in a series of collection tanks, and all have continuous outlet measurement. Readings from these devices are monitored. Wastewater from the facility is directed to a series of disposal wells which are instrumented with a flow meter, pressure gauge and temperature gauge and are monitored continuously. Wastewater influent (includes all grey water and sewage) is collected into holding tanks and then hauled to the Wastewater Treatment Plant (WWTP) for processing. This wastewater is treated and released to an effluent field, which is metered leaving the WWTP.</p>
<p>Water discharges – volumes by destination</p>	<p>100%</p>	<p>Water discharge volumes are measured at 100% of our operations (single facility, CLRP). No sites, facilities or water sources are excluded. Water use is an important indicator of efficiency and water discharge is regulated by the AER and AEP. EPEA approvals, AER Directives, and Water Act Licenses outline monitoring, measuring and reporting requirements including technical standards and frequencies. Facility disposal water is collected in a series of collection tanks, and all have continuous outlet measurement. Readings from these devices are monitored. Wastewater from the facility is directed to a series of disposal wells which are instrumented with a flow meter, pressure gauge and temperature gauge and are monitored continuously. Wastewater influent (includes all grey water and sewage) is collected into holding tanks and then hauled to the Wastewater Treatment Plant (WWTP) for processing. This wastewater is treated and released to an effluent field, which is metered leaving the WWTP.</p>
<p>Water discharges – volumes by treatment method</p>	<p>100%</p>	<p>Water discharge volumes by treatment method are monitored at 100% of our operations, which comprises of our single facility, CLRP. No sites, facilities or water sources are excluded. Domestic wastewater is regulated under an AEP EPEA Approval. Domestic wastewater is treated with coarse screening, primary clarification/sedimentation and sludge removal, aeration and microfiltration. After treatment, wastewater is released to an effluent</p>



		field. The volume of total treated effluent released is metered leaving the WWTP. Both effluent and influent is recorded daily. Water treatment is also part of the oil processing facility. Regular water quality monitoring is also conducted at the CLRP facility for parameters such as hardness, pH, turbidity and others to ensure water meets criteria for steam generation.
Water discharge quality – by standard effluent parameters	100%	Water discharge quality is monitored at 100% of our operations, which comprises of our single facility, CLRP. No sites, facilities or water sources are excluded. Domestic wastewater is regulated under an AEP EPEA Approval. Domestic wastewater is treated with coarse screening, primary clarification/sedimentation and sludge removal, aeration and microfiltration. After treatment, wastewater is released to an effluent field. The volume of total treated effluent released is metered leaving the WWTP. Both effluent and influent is recorded daily. Water treatment is also part of the oil processing facility. Regular water quality monitoring is also conducted at the CLRP facility for parameters such as hardness, pH, turbidity and others to ensure water meets criteria for steam generation.
Water discharge quality – temperature	100%	Water discharge quality - temperature is monitored at 100% of our operations, which comprises of our single facility, CLRP. No sites, facilities or water sources are excluded. MEG continually monitors the temperature of water disposed into disposal wells as per AER Directive 051: Injection and Disposal Wells and reports the results to the AER annually as per Directive 054: Performance Presentations, Auditing and Surveillance of In Situ Oil Sands Schemes. In addition to temperature, MEG monitors pH to ensure values are within regulated limits as well as periodic measurements of major ions for disposal fluid compatibility assessments and water treatment plant operations purposes. Any industrial runoff (rainwater that lands on the plant developed area and snowmelt) is released at ambient temperature. Water in the potable water treatment plant is analyzed daily for parameters identified regulatory approvals/licenses which include manganese, iron, chlorine, pH, turbidity and temperature.
Water consumption – total volume	100%	Water consumption volumes are measured at 100% of operations (single facility, CLRP). No sites, facilities or water sources are excluded. Water use is an indicator of efficiency and

		<p>consumption is regulated by the Alberta Energy Regulator (AER) and Alberta Environment &amp; Parks (AEP). Various approvals under the EPEA, AER Directives, and Water Act Licenses outline monitoring, measuring and reporting requirements including withdrawal volumes, technical standards and frequencies. Measurement methods include metering as per AER Directives 17, 42. Measurement and reporting are conducted on various frequencies including continuous, daily, monthly, or annually depending on the source or activity. Water Act licenses include requirements for production rate, volume, water level and reporting. Surface water diversion is measured by the pump rate and truck capacity. Groundwater monitoring programs monitor usage. Water quality monitoring is conducted at CLRP for parameters (hardness, pH, chloride).</p>
Water recycled/reused	100%	<p>Water recycling is measured at 100% of operations (single facility, CLRP). No sites, facilities or water sources are excluded. Water use is an indicator of efficiency. The AER Directive 081 outlines water management requirements for thermal in situ oil sands and sets disposal limits, requiring recycling of produced water, ensuring effective use of make-up water. Produced water is continuously metered using flow meters which are monitored daily. Water quality monitoring is conducted for hardness, turbidity to ensure steam generation criteria is met. Water recycle is continuously monitored and reported on a monthly basis internally and to the AER. SAGD drilling operations re-uses water from the drilling mud process to minimize drilling makeup water use. Drilling mud is reused until mud consistency becomes problematic and then waste fluids are hauled off site for disposal at an approved waste management facility, reducing the amount of makeup water required in the SAGD drilling process.</p>
The provision of fully-functioning, safely managed WASH services to all workers	100%	<p>Water for WASH services are monitored at 100% of our operations, which comprises of our single facility, CLRP. No sites, facilities or water sources are excluded. Source water for domestic use is pulled from a high quality groundwater source under an AER issued Water Act Licence. This water is treated by an onsite potable water plant to meet Canadian drinking Water Quality guidelines daily. Sanitation facilities are available in all permanent buildings as well as provided as portable wash car units at active project construction areas around the facility. Potable water is piped to the Control, Administration and Maintenance</p>



	building on site and is trucked to other facilities such as camps. Water in the potable water treatment plant is analyzed daily for parameters identified regulatory approvals/licenses which include manganese, iron, chlorine, pH, turbidity and temperature.
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## W1.2b

**(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?**

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	15,643	Higher	Total water withdrawal in 2021 increased compared to the previous year by 19%. Increased steam generation of the facility directly corresponds to the higher water withdrawal. Additional steam plant capacity was commissioned in 2021 to support increased bitumen production resulting in higher water withdrawals. Overall recycling rates remained high in 2021 at a rate of 96%. Surface water withdrawals were higher in 2021, by approximately 139%, as a result of seasonally drier conditions necessitating water use for road dust suppression and increased drilling activity associated with new well pad development. Non-saline water withdrawals were relatively steady in 2021 compared to previous year, decreasing by approximately 2%, as a result of optimization projects implemented in previous years. Increased steam production does not relate to increases in non-saline demand as some make-up water use was replaced with saline and produced water volumes. For this reason, in addition to adoption of a zero-blowdown process, the saline water withdrawal increased in 2022, by approximately 22%. In the future volumes of total water withdrawal are anticipated to remain relatively steady or fluctuate in alignment with production, however, reservoir technology development along with optimization projects have reduced water use intensities. Our definition for change: About the same is within +/- <15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- >50%.



Total discharges	15,341	Higher	Total water discharge volume in 2021 increased by 19% compared to 2021. Change in the reporting year can primarily be attributed to the increased steam generation volumes and related field injection for resource recovery. The volume of water discharge in the future is anticipated to remain relatively steady or fluctuate in alignment with production. In part, some increases will be minimized with the application of a blowdown disposal evaporator which will improve water recycle capabilities and reduce blowdown disposal. Our definition for change: About the same is within +/- <15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- >50%.
Total consumption	302	Higher	The 2021 total water consumption was about 36% higher than 2020. Changes in the reporting year were primarily associated with the additional water use for steam generation and to a lesser degree incremental increased use for dust suppression and drilling activity. The latter two account for roughly 15% of the total increase while the remainder is attributed to steam generation increases. In the future volumes of water consumption are anticipated to remain relatively steady or fluctuate in alignment with production. Our definition for change: About the same is within +/- <15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- >50%.

### 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	15,643	Higher	Upstream is the only business division applicable to MEG. Total water withdrawal in 2021 increased compared to the previous year by 19%. Increased steam generation of the facility directly corresponds to the higher water withdrawal. Additional steam plant capacity was commissioned in 2021 to support increased bitumen production resulting in higher water withdrawals. Overall recycling rates remained high in 2021 at a rate of 96%. Surface water withdrawals were higher in 2021, by approximately 139%, as a result of seasonally drier



			<p>conditions necessitating water use for road dust suppression and increased drilling activity associated with new well pad development. Non-saline water withdrawals were relatively steady in 2021 compared to previous year, decreasing by approximately 2% as a result of optimization projects implemented in previous years. Increased steam production does not relate to increases in non-saline demand as some make-up water use was replaced with saline and produced water volumes. For this reason, in addition to adoption of a zero-blowdown process, the saline water withdrawal increased in 2022, by approximately 22%. In the near future volumes of total water withdrawal are anticipated to remain relatively steady or fluctuate in alignment with production. Reservoir technology development along with optimization projects have reduced water use intensities and will continue to be explored in the future. Our definition for change: About the same is within +/- &lt;15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- &gt;50%.</p>
Total discharges – upstream	15,341	Higher	<p>Upstream is the only business division applicable to MEG. Total water discharge volume in 2021 increased by 19% compared to 2020. Change in the reporting year can primarily be attributed to the increased steam generation volumes and related field injection for resource recovery. The volume of water discharge in the future is anticipated to remain relatively steady or fluctuate in alignment with production. In part, some increases will be minimized with the application of a blowdown disposal evaporator which will improve water recycle capabilities and reduce blowdown disposal. Our definition for change: About the same is within +/- &lt;15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- &gt;50%.</p>
Total consumption – upstream	302	Higher	<p>Upstream is the only business division applicable to MEG. The 2021 total water consumption was about 36% higher than 2020. Changes in the reporting year were primarily associated with the additional water use for steam generation and to a lesser degree incremental increased use for dust suppression and drilling activity. The latter two account for roughly 15% of the total increase while the remainder is attributed to steam generation increases. In the near future volumes of water consumption are anticipated to remain relatively steady or fluctuate in alignment with production. Our definition for change: About the same is within +/- &lt;15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- &gt;50%.</p>



## 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	WRI Aqueduct	MEG currently operates in the Athabasca River Basin (Mackenzie River Basin sub-basin) where the water stress is identified as “arid and low water use” as classified by the WRI Aqueduct tool.

## W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	79	Higher	The water source is relevant because MEG diverts surface water for industrial purposes such as constructing ice roads, dust suppression and drilling associated with exploration and development drilling programs. All water withdrawals are licensed under the Water Act which outlines requirements including source locations and maximum annual volumes. As a result of increased need for road dust suppression related to seasonably drier conditions and increased drilling activity in 2021, withdrawal of this source was approximately 139% higher than the previous year. MEG utilizes no surface water from streams, rivers or lakes for process purposes. Future annual use will continue to align with variations in seasonal precipitation, capital spend, drilling activity during the year. Our definition for change: About the same is within +/- <15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- >50%.

Brackish surface water/Seawater	Not relevant			MEG does not use brackish surface water/seawater, therefore this sources is not relevant
Groundwater – renewable	Relevant	657	About the same	Groundwater levels in all of the source aquifers are predicted to return to near pre-pumping levels within 50 years of the cessation of withdrawals, categorizing the sources as renewable. MEG has been able to maintain high water recycle rates reducing the need for additional make-up water withdrawals. Future volumes are anticipated to increase as steam capacity and production increases however further reductions in intensities are anticipated through reservoir technology and optimization projects. Our definition for change: About the same is within +/- <15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- >50%.
Groundwater – non-renewable	Not relevant			MEG does not use non-renewable groundwater, therefore this sources is not relevant.
Produced/Entrained water	Relevant	14,907	Higher	Produced water is composed mainly of injected steam and water from the reservoir that is produced back along with the bitumen. Produced water is de-oiled and recycled. More than 95% of water utilized is recycled on an ongoing basis for steam generation. Future volumes of produced water are anticipated to increase as steam chambers mature, eMSAGP is deployed at additional wells and new SAGD wells are brought into production. In 2021, produced water volumes increased by approximately 20% from the year prior primarily due to increased bitumen production. Our definition for change: About the same is within +/- <15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- >50%.
Third party sources	Not relevant			MEG does not obtain water from a third party, therefore this sources is not relevant.

## 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	90	Higher	Wastewater is treated to meet the parameters of MEG's EPEA approval and is then released to an effluent field adjacent to the wastewater treatment plant. The volume of total treated effluent released is metered leaving the WWTP. Both effluent and influent is recorded daily. Future trends of WWTP discharge are anticipated to increase if capital spending increase results in additional camp use. In 2021, fresh water discharge was up approximately 64% from the year prior associated with increased drilling activity and higher camp loading due to commissioning of additional steam capacity at the central processing facility. Our definition for change: About the same is within +/- <15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- >50%.
Brackish surface water/seawater	Not relevant			MEG does not use brackish surface water/seawater, therefore this sources is not relevant.
Groundwater	Relevant	15,251	Higher	Water discharge to this destination is relevant because MEG discharges process wastewater that can no longer be used for steam generation into disposal wells completed in the Fort McMurray water sand. Future volumes of water discharge may increase slightly due to more wells being brought online. MEG also discharges steam into the reservoir for oil production. In 2021, groundwater discharges were up approximately 19% from the year prior reflecting the higher volumes of steam generation from the facility. Our definition for change: About the same is within +/- <15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- >50%.



Third-party destinations	Not relevant			MEG does not obtain water from a third party, therefore this sources is not relevant.
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## W1.2j

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

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant	13,297		81-90	All water used for steam injection goes through tertiary water treatment in order to meet boiler feed water (BFW) quality specifications which are: TDS less than 8,000 mg/L; hardness (expressed as calcium carbonate, CaCO <sub>3</sub> ) less than 0.5 mg/L; and dissolved silica of less than 90 mg/L. In addition, Total Organic Carbon (TOC) and alkalinity must be controlled to prevent fouling of the steam generators and excessive CO <sub>2</sub> in the steam pipeline. There are no regulatory or voluntary standards for these tertiary treatment activities and treatment is conducted to meet operational specifications of equipment. The tertiary treatment process includes hot lime softeners (HLSs) to remove silica and reduce hardness and ion exchangers are used for final hardness removal. Additional filters located immediately downstream of the HLSs remove any lime carryover from the clarifier. In 2021,



					additional tertiary treatment, a mechanical vapour compression (MVC) unit was commissioned to treat water for feed to two drum boilers. The MVC uses blowdown waste from the once through steam generators and distills the fluid to remove impurities (TDS) to a level of 50 mg/L for the purpose of steam generation. The use of blowdown reduces the need for additional water withdrawals and decreases the volume of water directed to disposal. Our definition for change: About the same is within +/- <15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- >50%.
Secondary treatment	Not relevant				MEG does not utilize secondary treatment methods for discharge treatment.
Primary treatment only	Relevant	2,044	Higher	11-20	The remainder of discharge volumes constitute collected surface water from MEG developed sites following regulatory standards under MEG's EPEA Approval, the Water Act and AER Directive 55. All these discharge volumes pass through filtration to remove solids present. Our definition for change: About the same is within +/- <15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- >50%.
Discharge to the natural environment	Not relevant				MEG does not discharge water to the natural environment without treatment, therefore this category is not relevant.



without treatment					
Discharge to a third party without treatment	Not relevant				MEG does not discharge water to a third party, therefore this category is not relevant.
Other	Not relevant				MEG does not utilize any other treatment methods for discharge treatment.

### W1.3

**(W1.3) Provide a figure for your organization’s total water withdrawal efficiency.**

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	4,321,000,000	15,644	276,208.13091281	The anticipated forward trend is that water withdrawal efficiency will either remain steady or increase slightly in alignment with anticipated production increases.

### 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)**

0.11

**Numerator: water aspect**

Other, please specify

Total Make-up Water Intensity

**Denominator**

Other, please specify

m3 of bitumen

**Comparison with previous reporting year**

Lower

**Please explain**

MEG is focused on efficient bitumen production which includes the efficient use of water. The primary use of water in MEG's operations is steam generation. Water used for steam generation consists of produced water (more than 95%) and make-up water (5%) which includes saline and non-saline deep groundwater from hydrocarbon-bearing-formations that are unsuitable for human or agriculture use. MEG calculates and tracks the total make-up water intensity and non-saline water intensity to monitor water make-up water use. The intensity metric is used internally to trend water performance and driver further reductions. A key measure of efficiency for thermal in-situ projects is the steam-oil ratio (SOR), with a lower SOR indicating that steam is more efficiently utilized. By decreasing the amount of steam used, MEG is able to reduce per barrel water usage, including the amount of make-up water required. MEG's strategy to reduce SOR and water intensities involves reservoir technology development such as eMSAGP, optimization of recycling technology and optimization projects such as plant modifications. In 2021, the make-up water intensity decreased by approximately 8% from the year prior. The decrease was a result of lower saline water withdrawal associated with zero blowdown technology associated with the commissioning of additional steam generation equipment. MEG continued the deployment of eMSAGP technology at the CLRP Phase 2B wells in 2021. The future trends are anticipated to decrease as a result of the technology development strategy and optimization projects. Our definition for change: About the same is within +/- <15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- >50%.

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**Business division**

Upstream

**Water intensity value (m3)**

0.08

**Numerator: water aspect**

Other, please specify

Non-Saline Make-up Water Intensity

**Denominator**

Other, please specify

m3 of bitumen

**Comparison with previous reporting year**

About the same

**Please explain**

MEG is focused of efficient bitumen production which includes the efficient use of water. The primary use of water in MEG's operations is steam generation. Water used for steam generation consists of produced water (more than 95%) and make-up water (10%) which includes saline and non-saline deep groundwater from hydrocarbon-bearing-formations that are unsuitable for human or agriculture use. MEG calculates and tracks the total make-up water intensity and non-saline water intensity to monitor water make-up water use. The intensity metric is used internally to trend water performance and driver further reductions. A key measure of efficiency for thermal in-situ projects is the steam-oil ratio (SOR), with a lower SOR indicating that steam is more efficiently utilized. By decreasing the amount of steam used, MEG is able to reduce per barrel water usage, including the amount of make-up water required. MEG's strategy to reduce SOR and water intensities involves reservoir technology development such as eMSAGP, optimization of recycling technology and optimization projects such as plant modifications. In 2021, the non-saline water intensity remained at the lowest level in operational history as a result of these strategies. MEG continued the deployment of eMSAGP technology at the CLRP Phase 2B wells in 2021. The future trends are anticipated to be maintained at this low rate as a result of the



technology development strategy and optimization projects. Our definition for change: About the same is within +/- <15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- >50%.

## W1.4

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

Yes, our suppliers

Yes, our customers or other value chain partners

## W1.4a

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

#### Row 1

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##### % of suppliers by number

1-25

##### % of total procurement spend

1-25

##### Rationale for this coverage

We require water to complete a number of industrial activities such as constructing ice roads, dust suppression, and to support our development and exploration program. Water diversion for these activities is regulated by water licenses under the Water Act. MEG engages suppliers to provide water movement services for these activities. These suppliers represent 1-25% of suppliers by number and 1-25% of procurement spend. These suppliers are required document and provide various water information while completing their scope of work.

All vendors and contractors working at site, including suppliers providing water movement services receive mandatory MEG orientation which includes the importance of water as an asset to MEG. The orientation training outlines the risks associated with activities in proximity to water and best management practices to ensure water protection. Topics covered include spill prevention, response and reporting, setback requirements for activities such refueling and other higher risk activities. Training additional to the orientation is mandatory for each individual



providing water movement services. This training covers regulations under the Water Act and internal water diversion guidelines which provide direction for meeting water license requirements including procedures for withdrawing water, data tracking and record keeping. Suppliers are incentivized to report through our supply contracts which request that they comply with MEG internal standards. Lack of adherence to these requirements can potentially result in dismissal from the MEG site. Regular field inspections are conducted on supplier and water sources to ensure procedures are followed and regulatory compliance. Constant QA/QC processes ensure discrepancies in water tracking data are addressed immediately. Persistent issues would result in dismissal from site.

**Impact of the engagement and measures of success**

MEG engages suppliers to provide water movement services and requires the supplier to follow internal water diversion guidelines which provide direction for meeting water licence requirements including procedures for withdrawing water and record keeping. The type of information requested from suppliers includes diversion location, end location, volume and water usage. This information is requested at the end of each day. MEG uses this information to complete annual water use reports to meet the requirements outlined in the water license. Success is measured by successful submission of the annual water use report to the regulator and achievement of internal key performance indicators which includes zero non-compliance's association with water diversion and proper documentation. General vendor and contractor environmental compliance is reviewed during regularly occurring Business Review Meetings. If a vendor were to have any leading indicator items (i.e. observation card findings etc.) or compliance or performance issues they would be brought up and addressed along with companywide Environment, Health and Safety (EHS) performance. MEG aims to ensure each vendor meets or exceeds its own EHS expectations.

**Comment**

**W1.4b**

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

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**Type of engagement**

Onboarding & compliance

**Details of engagement**

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

**% of suppliers by number**

76-100

**% of total procurement spend**

76-100

**Rationale for the coverage of your engagement**

The prevention of spills or reduction in their severity is a key environmental initiative at MEG. Prevention as well as prompt and appropriate spill response is critical to mitigating environmental impacts including impacts to any water bodies. Therefore, spill prevention, mitigation and reporting information are included as part of the mandatory site orientation that every vendor and contractor is required to take before working at CLRP. These requirements are applicable to 75-100% of suppliers by number and 76-100% of total procurement spend.

**Impact of the engagement and measures of success**

MEG tracks hydrocarbon and non-hydrocarbon spills across its operations, identifies trends so the causes are understood, and appropriate preventative measures are implemented. MEG has created a culture of transparency where vendor and contractor working at site are encouraged to bring any issues forward to MEG through its hazard identification card program. Engagement with suppliers through spill orientation and training as well as transparent communication positively impacts our efforts to prevent any impacts to water bodies. MEG measures the success of engagement by conducting audits and inspections which include worker interviews to ensure awareness of their company policies and procedures around spill prevention and reporting and how they meet or exceed those of MEG. General vendor and contractor environmental compliance is reviewed during regularly occurring Business Review Meetings. If a vendor were to have any leading indicator items (i.e. observation card findings etc.) or compliance or performance issues they would be brought up and addressed along with companywide Environment, Health and Safety (EHS) performance. MEG aims to ensure each vendor meets or exceeds its own EHS expectations. Any identified issues are communicated to that companies' management team. Success is also measured when no spills occur, including any spills impacting water bodies.

**Comment**

## W1.4c

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

To promote efficient use of resources in the area we operate in, MEG supports sharing of water sources with other operators (within water use limits) and provides road access to man-made sources, such as borrow pits, to reduce the impact of water withdrawal from natural wetlands. MEG is part of the Christina Lake Regional Water Management Agreement with other operators in the area who work together on collaborative water use and disposal management. Continued adequate management of current and future groundwater use and water disposal in the region is a MEG's measure of engagement success.

## W2. Business impacts

### W2.1

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

No

### W2.2

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

No

## W3. Procedures

### W-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?**

**Policies and processes in place:** MEG's Water Policy endorses MEG's commitment to the protection of water resources. Potential water pollutants associated with MEG's facilities are initially identified through an Environmental Impact Assessment (EIA) conducted for each project. Pollutants are identified and monitored in accordance with MEG's Environmental Protection and Enhancement Act (EPEA) approval as well as licenses obtained under the AEP Water Act that validate the EIA findings. MEG actively monitors impacts of the projects activities as per approval and licensing requirements. MEG's EHS Management Performance Program (MPP) provides frameworks for assessing and managing risk, including potential water pollutants and includes standards such as the Chemical Handling and Storage Standard and Workplace Hazardous Materials Information System (WHIMIS ) and Transportation of Dangerous Goods (TDG) Standards. **Details of established standards:** The EIA method takes both a qualitative and quantitative evaluation approach to identify potential water pollutants. The qualitative analysis is based on previous EIAs, monitoring programs, literature and professional judgement. The quantitative analysis uses models and analytical methods. Water quality data is evaluated against water quality guidelines for the protection of non-saline aquatic life, human health and wildlife health. The evaluation is based on the more conservative guidelines of the following (among others): Alberta Environment - Surface Water Quality Guidelines for Use in Alberta, U.S. Environmental Protection Agency National Recommended Water Quality Criteria and the Canadian Council of Ministers of the Environment (CCME)- Canadian Environmental Quality Guidelines. EPEA approval and AEP Water Act license act require monitoring programs including groundwater monitoring that monitors groundwater withdrawal, wastewater disposal, accidental releases from surface facilities and casing failures and steam injection. Groundwater monitoring is also in place for camp and utility water withdrawal. Monitoring results are assessed in the context of regulatory guidelines such as the Alberta Tier 1 Soil and Groundwater Remediation Guidelines. Hazard and risk assessments are conducted and documented for all work projects undertaken by value chain partners conducting work on behalf of MEG. The Chemical Handling and Storage Standard and WHIMIS and TDG Standard ensure potential water pollutants associated with its activities are identified and labelled as well as chemicals on site in accordance with TDG Requirements and WHIMIS. They include evaluation criteria such as material and chemical composition as well as processes to identify pollutants that can potentially enter water in case of a spill or accident. These potential hazards are eliminated or controlled as applicable. **How processes vary across value chain:** All policies, process and standards discussed above identify potential water pollutants throughout the value chain of the project, from construction, to drilling activities, to operations through to decommissioning and reclamation and are applicable to all of MEG's operations. MEG



also identifies potential pollutants across its downstream value chain which includes our diluted bitumen product that is shipped across North America for sale using pipelines and, at times, held in storage at one of several locations prior to sale. This also includes purchased diluent is similarly transported across North America to MEG's production site at CLRP using pipelines. A spill of these transported products, if it were to occur into a body of water, could present significant environmental risk. To, date no such even has occurred.

### W-OG3.1a

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

Potential water pollutant	Business division	Description of water pollutant and potential impacts	Management procedures	Please explain
Hydrocarbons	Upstream	Sources of hydrocarbons at in situ facilities include bitumen (produced by MEG), natural gas condensate and refined naphtha often used a diluent to transport bitumen and others such as oil, fuels, gasoline, natural gas, diesel etc. used throughout operations. A hydrocarbon itself or pollutants from hydrocarbons could degrade water and sediment quality and elevate concentrations of a specific constituent of the hydrocarbon. Impacts would depend on the nature, duration and volume of the release. . A potential impact of this water pollutant is the prevention of oxygen exchange between the environment from a hydrocarbon film on the water, causing damage to aquatic life. There is also the potential for hydrocarbon released	Compliance with effluent quality standards Measures to prevent spillage, leaching and leakages Community/stakeholder engagement Emergency preparedness	How procedures selected manage the risk: Compliance: MEG is not permitted to release anything but industrial runoff into the environment as per regulatory requirements which also require testing of industrial runoff prior for to release to ensure effluent quality standards are met. Prevention measures: MEG incorporates design feature (required setbacks from waterbodies, grading and berms and practices and procedures (testing and controlled release of industrial runoff water, use of containment, setbacks for fueling, use of drip trays, locking fittings on hoses), as well as preventative maintenance to detect leakages, and pre-job inspections. All workers complete an orientation which highlights spill prevention, as well as prompt spill responses. MEG conducts inspections to ensure compliance with standards and procedures. Soil,



		<p>to the environment and water to have significant impacts to waterfowl that frequent the surrounding ecosystems.</p>	<p>Groundwater and Wetland Monitoring Programs in place assess water quality and quantity along with vegetation health. These programs are destined to detect potential impacts prior to leaching into water and to identify potential impacts through surface water transport or from aerial disposition. If there is suspected impact, remediation plans are implemented to minimize impacts. Emergency preparedness: MEG's emergency response plan has a section dedicated to spill response designed to prevent and mitigate pollutants reaching the water. MEG conducts spill training and ERP exercises with the spill response equipment to evaluate effectiveness. Community/stakeholder: All contractors are required to meet EHS prequalification's and complete MEG Site Orientation. Both highlight the expected measures for the prevention of spills, as well as prompt and appropriate spill responses critical to mitigating impacts to surrounding environment, including water. Regular field inspections to ensure compliance with MEG standards and procedures are undertaken. MEG ensures transparency and actively communicates with stakeholders and community members as required. Measurement of results/success: MEG uses a risk assessment matrix to determine the potential risk of each release (i.e. volume &gt;2m3, off-lease, impacts to water). These are communicated monthly to leadership and ultimately</p>
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				<p>impact the corporate spill performance targets which are part of the Corporate Performance Scorecard and linked to executive and employee compensation. Meeting or exceeding these spill performance targets is a measure of success.</p>
Chemicals	Upstream	<p>Any introduction of toxic or anthropogenic substances into the aquatic environment has the potential to result in changes to water quality. Chemicals that have the potential to be released to the environment include constituents regularly used and produced in the oil and gas industry, including various hydrocarbons such as oil, grease, fuels and coolants such as glycol and methanol. Other chemicals include natural gas condensate and refined naphtha often used a diluent to transport bitumen. Any introduction of toxic or anthropogenic substances into the aquatic environment has the potential to result in changes to water quality. Potential impacts from chemicals could: degrade water and sediment quality and elevate concentrations of the specific chemical. Chemicals and heavy metals can be toxic to most vegetation and aquatic life in high concentrations. Aquatic life is most often impacted by reducing an organism's life span and ability to reproduce. Impacts would depend on the nature, duration and volume of the release.</p>	<p>Compliance with effluent quality standards                  Measures to prevent spillage, leaching and leakages                  Community/stakeholder engagement                  Emergency preparedness</p>	<p>How procedures selected manage the risk:                  Compliance: MEG is not permitted to release anything but industrial runoff into the environment as per regulatory requirements which also require testing of industrial runoff prior for to release to ensure effluent quality standards are met. Prevention measures: MEG incorporates design feature (required setbacks from waterbodies, grading and berms and practices and procedures (testing and controlled release of industrial runoff water, use of containment, setbacks for fueling, use of drip trays, locking fittings on hoses), as well as preventative maintenance to detect leakages, and pre-job inspections. All workers complete an orientation which highlights spill prevention, as well as prompt spill responses. MEG conducts inspections to ensure compliance with standards and procedures. Soil, Groundwater and Wetland Monitoring Programs in place assess water quality and quantity along with vegetation health. These programs are destined to detect potential impacts prior to leaching into water and to identify potential impacts through surface water transport or from aerial disposition. If there is suspected impact, remediation plans are</p>



				<p>implemented to minimize impacts.</p> <p>Emergency preparedness: MEG's emergency response plan has a section dedicated to spill response designed to prevent and mitigate pollutants reaching the water. MEG conducts spill training and ERP exercises with the spill response equipment to evaluate effectiveness. Community/stakeholder: All contractors are required to meet EHS prequalification's and complete MEG Site Orientation. Both highlight the expected measures for the prevention of spills, as well as prompt and appropriate spill responses critical to mitigating impacts to surrounding environment, including water. Regular field inspections to ensure compliance with MEG standards and procedures are undertaken. MEG ensures transparency and actively communicates with stakeholders and community members as required. Measurement of results/success: MEG uses a risk assessment matrix to determine the potential risk of each release (i.e. volume &gt;2m3, off-lease, impacts to water). These are communicated monthly to leadership and ultimately impact the corporate spill performance targets which are part of the Corporate Performance Scorecard and linked to executive and employee compensation. Meeting or exceeding these spill performance targets is a measure of success.</p>
Drilling fluids	Upstream	Any introduction of toxic or anthropogenic substances into the aquatic environment has	Compliance with effluent quality standards	<p>How procedures selected manage the risk:</p> <p>Compliance: MEG is not permitted to release</p>



		<p>the potential to result in changes to water quality. Potential impacts from drilling fluids could: degrade water and sediment quality and elevate concentrations of the specific constituents of the drilling fluid. Impacts would depend on the nature, duration and volume of the release. A release of drilling fluids to the environment could cause altered electrochemical makeup, changes in nutrient availability and localized impacts to aquatic life in a localized area (decreased diversity and abundance).</p>	<p>Measures to prevent spillage, leaching and leakages                  Community/stakeholder engagement                  Emergency preparedness</p>	<p>anything but industrial runoff into the environment as per regulatory requirements which also require testing of industrial runoff prior for to release to ensure effluent quality standards are met. Prevention measures: MEG incorporates design feature (required setbacks from waterbodies, grading and berms and practices and procedures (testing and controlled release of industrial runoff water, use of containment, setbacks for fueling, use of drip trays, locking fittings on hoses), as well as preventative maintenance to detect leakages, and pre-job inspections. All workers complete an orientation which highlights spill prevention, as well as prompt spill responses. MEG conducts inspections to ensure compliance with standards and procedures. Soil, Groundwater and Wetland Monitoring Programs in place assess water quality and quantity along with vegetation health. These programs are destined to detect potential impacts prior to leaching into water and to identify potential impacts through surface water transport or from aerial disposition. If there is suspected impact, remediation plans are implemented to minimize impacts.                  Emergency preparedness: MEG's emergency response plan has a section dedicated to spill response designed to prevent and mitigate pollutants reaching the water. MEG conducts spill training and ERP exercises with the spill response equipment to evaluate effectiveness. Community/stakeholder: All</p>
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				<p>contractors are required to meet EHS prequalification's and complete MEG Site Orientation. Both highlight the expected measures for the prevention of spills, as well as prompt and appropriate spill responses critical to mitigating impacts to surrounding environment, including water. Regular field inspections to ensure compliance with MEG standards and procedures are undertaken. MEG ensures transparency and actively communicates with stakeholders and community members as required. Measurement of results/success: MEG uses a risk assessment matrix to determine the potential risk of each release (i.e. volume &gt;2m<sup>3</sup>, off-lease, impacts to water). These are communicated monthly to leadership and ultimately impact the corporate spill performance targets which are part of the Corporate Performance Scorecard and linked to executive and employee compensation. Meeting or exceeding these spill performance targets is a measure of success.</p>
Cuttings	Upstream	Any introduction of toxic or anthropogenic substances into the aquatic environment has the potential to result in changes to water quality. Potential impacts from cuttings could: degrade water and sediment quality and elevate concentrations of the specific constituents of the drilling fluid. Impacts would depend on the nature, duration and volume of the release. Drill cuttings are likely	<p>Compliance with effluent quality standards</p> <p>Measures to prevent spillage, leaching and leakages</p> <p>Community/stakeholder engagement</p> <p>Emergency preparedness</p>	<p>How procedures selected manage the risk: Compliance: MEG is not permitted to release anything but industrial runoff into the environment as per regulatory requirements which also require testing of industrial runoff prior for to release to ensure effluent quality standards are met. Prevention measures: MEG incorporates design feature (required setbacks from waterbodies, grading and berms and practices and procedures (testing and</p>



		<p>to contain hydrocarbons and elevated metals. A potential impact of this water pollutant is the prevention of oxygen exchange between the environment from a hydrocarbon film on the water, causing damage to aquatic life. There is also the potential for hydrocarbon released to the environment and water to have significant impacts to waterfowl that frequent the surrounding ecosystems.</p>	<p>controlled release of industrial runoff water, use of containment, setbacks for fueling, use of drip trays, locking fittings on hoses), as well as preventative maintenance to detect leakages, and pre-job inspections. All workers complete an orientation which highlights spill prevention, as well as prompt spill responses. MEG conducts inspections to ensure compliance with standards and procedures. Soil, Groundwater and Wetland Monitoring Programs in place assess water quality and quantity along with vegetation health. These programs are destined to detect potential impacts prior to leaching into water and to identify potential impacts through surface water transport or from aerial disposition. If there is suspected impact, remediation plans are implemented to minimize impacts.</p> <p>Emergency preparedness: MEG's emergency response plan has a section dedicated to spill response designed to prevent and mitigate pollutants reaching the water. MEG conducts spill training and ERP exercises with the spill response equipment to evaluate effectiveness. Community/stakeholder: All contractors are required to meet EHS prequalification's and complete MEG Site Orientation. Both highlight the expected measures for the prevention of spills, as well as prompt and appropriate spill responses critical to mitigating impacts to surrounding environment, including water. Regular field inspections to ensure compliance with</p>
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				<p>MEG standards and procedures are undertaken. MEG ensures transparency and actively communicates with stakeholders and community members as required. Measurement of results/success: MEG uses a risk assessment matrix to determine the potential risk of each release (i.e. volume &gt;2m3, off-lease, impacts to water). These are communicated monthly to leadership and ultimately impact the corporate spill performance targets which are part of the Corporate Performance Scorecard and linked to executive and employee compensation. Meeting or exceeding these spill performance targets is a measure of success.</p>
<p>Other, please specify Produced Water</p>	<p>Upstream</p>	<p>Any introduction of toxic or anthropogenic substances into the aquatic environment has the potential to result in changes to water quality. High temperature process water (such as produced water) has the potential to impact water quality. MEG's production often includes high chloride reservoir water from the use of produced water steam used to recover the bitumen. This combined combination of hydrocarbon and chlorides could be detrimental to vegetation in and around waterbodies. Chloride is necessary for water habitats, yet high levels of chloride can have detrimental effects on an ecosystem. Chloride may impact freshwater organisms and plants by altering</p>	<p>Compliance with effluent quality standards Measures to prevent spillage, leaching and leakages Community/stakeholder engagement Emergency preparedness</p>	<p>How procedures selected manage the risk: Compliance: MEG is not permitted to release anything but industrial runoff into the environment as per regulatory requirements which also require testing of industrial runoff prior for to release to ensure effluent quality standards are met. Prevention measures: MEG incorporates design feature (required setbacks from waterbodies, grading and berms and practices and procedures (testing and controlled release of industrial runoff water, use of containment, setbacks for fueling, use of drip trays, locking fittings on hoses), as well as preventative maintenance to detect leakages, and pre-job inspections. All workers complete an orientation which highlights spill prevention, as well as prompt spill responses. MEG conducts inspections to ensure</p>



		<p>reproduction rates, increasing species mortality, and potentially changing the characteristics of the ecosystem in that area.</p>	<p>compliance with standards and procedures. Soil, Groundwater and Wetland Monitoring Programs in place assess water quality and quantity along with vegetation health. These programs are destined to detect potential impacts prior to leaching into water and to identify potential impacts through surface water transport or from aerial disposition. If there is suspected impact, remediation plans are implemented to minimize impacts.</p> <p>Emergency preparedness: MEG's emergency response plan has a section dedicated to spill response designed to prevent and mitigate pollutants reaching the water. MEG conducts spill training and ERP exercises with the spill response equipment to evaluate effectiveness. Community/stakeholder: All contractors are required to meet EHS prequalification's and complete MEG Site Orientation. Both highlight the expected measures for the prevention of spills, as well as prompt and appropriate spill responses critical to mitigating impacts to surrounding environment, including water. Regular field inspections to ensure compliance with MEG standards and procedures are undertaken. MEG ensures transparency and actively communicates with stakeholders and community members as required. Measurement of results/success: MEG uses a risk assessment matrix to determine the potential risk of each release (i.e. volume &gt;2m<sup>3</sup>, off-lease, impacts to water). These are</p>
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				communicated monthly to leadership and ultimately impact the corporate spill performance targets which are part of the Corporate Performance Scorecard and linked to executive and employee compensation. Meeting or exceeding these spill performance targets is a measure of success.
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### W3.3

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

Yes, water-related risks are assessed

### W3.3a

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

**Value chain stage**

Direct operations

**Coverage**

Full

**Risk assessment procedure**

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

**Frequency of assessment**

More than once a year

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

More than 6 years



**Type of tools and methods used**

Enterprise risk management

**Tools and methods used**

Enterprise Risk Management

**Contextual issues considered**

- Water availability at a basin/catchment level
- Water quality at a basin/catchment level
- Stakeholder conflicts concerning water resources at a basin/catchment level
- Implications of water on your key commodities/raw materials
- Water regulatory frameworks
- Status of ecosystems and habitats
- Access to fully-functioning, safely managed WASH services for all employees

**Stakeholders considered**

- Customers
- Employees
- Investors
- Local communities
- NGOs
- Regulators
- Suppliers

**Comment**

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**Value chain stage**

Direct operations

**Coverage**

Full

**Risk assessment procedure**

Water risks are assessed in an environmental risk assessment

**Frequency of assessment**

Every three years or more

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

More than 6 years

**Type of tools and methods used**

International methodologies and standards

**Tools and methods used**

Environmental Impact Assessment

**Contextual issues considered**

Water availability at a basin/catchment level

Water quality at a basin/catchment level

Stakeholder conflicts concerning water resources at a basin/catchment level

Implications of water on your key commodities/raw materials

Water regulatory frameworks

Status of ecosystems and habitats

Access to fully-functioning, safely managed WASH services for all employees

**Stakeholders considered**

Customers

Employees

Investors

Local communities



NGOs  
Regulators  
Suppliers

**Comment**

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**Value chain stage**

Supply chain

**Coverage**

Partial

**Risk assessment procedure**

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

**Frequency of assessment**

More than once a year

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

More than 6 years

**Type of tools and methods used**

Enterprise risk management

**Tools and methods used**

Enterprise Risk Management

**Contextual issues considered**

Water availability at a basin/catchment level

Water quality at a basin/catchment level

Stakeholder conflicts concerning water resources at a basin/catchment level  
Implications of water on your key commodities/raw materials  
Water regulatory frameworks  
Status of ecosystems and habitats  
Access to fully-functioning, safely managed WASH services for all employees

**Stakeholders considered**

Customers  
Employees  
Investors  
Local communities  
NGOs  
Regulators  
Suppliers

**Comment**

**W3.3b**

**(W3.3b) 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.**

**i,ii) EIA Application & Outcomes:** Potential water-related risks associated with MEG’s direct operations are first identified and assessed through the implementation of an Environmental Impact Assessment (EIA) conducted for the full operation and throughout the value chain (full coverage) of the project, from construction, drilling, operations to decommissioning and reclamation. The EIA evaluates current conditions, water availability and quality, and identifies components of the operation that could affect groundwater quantity/ quality, surface water quality and aquatic ecosystems/ habitats. EIA outcomes are used to identify and implement design features, managements practices, and mitigation and monitoring programs to ensure adequate management of potential contextual issues such as water availability and quality and minimize impact and likelihood of water-related risks. **i,ii) ERM Application & Outcomes:** MEG uses a value-driven Enterprise Risk Management (ERM) philosophy to identify key strategic risks of MEG’s full direct

operations. MEG's entire leadership team is engaged in evaluation and ranking of risk areas across the organization. ERM is integrated into strategic and business planning, operating practices, marketing, compliance monitoring, operating performance, measurement and facility design and outcomes or the assessment drive decisions through these areas. For example, the assessment helped drive the introduction of technological strategies to enhance bitumen recovery which also improve water use (eMSAGP). Water related issues and risks in the supply chain are identified during the supplier qualification process and suppliers must meet HS&E requirements in order to be granted work. This includes requirements that stem from assessing the potential for spills that could impact water bodies or ensuring regulatory requirements by contractors are met. Not all suppliers have water-related issues, therefore only partial coverage is applicable. **iii) Reasons for contextual issues:** MEG's operations rely on water for the production of steam, for drilling activities, dust suppression and for potable water at camps. Both water availability and water quality can impact MEG's ability to conduct the aforementioned activities potentially impacting MEG's operating results and are therefore included in assessments. A number of contextual issues can in turn impact water availability and/or water quality and are also included in the assessment: MEG recognizes water is a shared resources and identifies stakeholders in terms of consultation and partnerships as part of the assessment to ensure water access and mitigate potential conflicts. Key commodities/raw natural materials (electricity, diluent) may have associated water risks and thus the potential impacts on water from commodities such as the transportation of purchased diluent using pipelines are considered. All water required for MEG's operations is regulated by regional regulatory bodies (AER and AEP) and therefore current and potential water regulatory frameworks can impact MEG operations and are included in the assessment. The status of ecosystems and habitats is relevant as impacts to either may lead to regulatory, reputational and operational consequences and thus are included in assessments. MEG provides WASH services at remote camps supporting its operations. Disruptions to camp operations could impact MEG's operating results and thus this contextual issues is included in the assessment. **iv) Reasons for stakeholders:** MEG holds itself accountable through open and transparent stakeholder engagement and considers a diverse set of stakeholders in assessments. Employees are the core of MEG's operations and are considered in assessments to ensure a safe work environment is provided that protects people and property and the environment including water. Both employees and suppliers working on-site have the potential to impact water resources, for example in terms of spills to water sources, and are therefore included in assessments. Changes in consumer behavior may result in policies which reduce support for MEG's sector and are therefore included. MEG is committed to responsible stewardship of investor capital and considers the preservation and enhancement of long-term value in its assessments. Regulators are included because all water required for MEG's operations are regulated by regional regulatory bodies including the AER and AEP. MEG's operations fall within or are adjacent to Indigenous people's traditional territory and have an impact on local and surrounding communities. Local communities are considered in assessments because it is critical to create and maintain relationships founded on respect and trust throughout project lifecycles in order for Indigenous peoples and MEG to find mutual benefit.



## W4. Risks and opportunities

### W4.1

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

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

### W4.1a

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

Water is an element of MEG’s Enterprise Risk Management (ERM) system which uses a risk matrix based on likelihood and impact severity to identify, assess, and prioritize strategic risks. i) **Definition:** MEG defines substantive financial risk and strategic impact as a risk, which, if it materialized, has the potential to materially negatively impact the enterprise value of the corporation. ii)+iii) **Metrics/Thresholds:** Enterprise value could be negatively impacted by reduced forecast free cash flow or higher cost of capital due to increased risk in the business, higher costs, or reduced revenue among other factors. Financial and strategic risks with the ability to impact value by 5% or more are considered material. Water related risks are rated moderate, meaning that the combination of one or more impacts could result in a value impact of up to 10%, unmitigated. Investment in mitigation activity is required to reduce risk to less than 5% potential value impact. iv) **Scope:** The mentioned definitions and thresholds apply regardless to where in the value chain the risk/event is located (operations and supply chain).

### W4.1b

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

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	1	100	MEG currently operates one asset, the Christina Lake Regional Project (CLRP).

## 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?**

---

**Country/Area & River basin**

Canada  
Mackenzie River

**Number of facilities exposed to water risk**

1

**% company-wide facilities this represents**

100%

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

100%

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

100%

**Comment**

MEG currently operates one asset, the Christina Lake Regional Project (CLRP)

## 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**

Acute physical  
Other, please specify  
Failure of water infrastructure

**Primary potential impact**

Reduction or disruption in production capacity

**Company-specific description**

The primary use of water in MEG's direct operations is for steam production which is injected to warm and soften bitumen so it can be pumped to the surface. More than 95% of the water used for steam generation is treated and recycled produced water (that was previously injected into the reservoir as steam to heat bitumen) while the remaining 5% is make-up water. Excess produced water and water not suitable for treatment or recycling is transported from the MEG's CLRP central processing facility via two pipelines (the produced disposal line and brine disposal line) to disposal wells where the water is injected into the McMurray Formation, a deep saline reservoir that is isolated by caprock from other aquifers and aquatic ecosystems. Specifically for this risk, such as a failure of water infrastructure is a disruption in the service of the brine disposal pipeline could impact direct operations at the central processing facility requiring a reduction in bitumen production volumes. The suspension of the brine disposal pipeline would require MEG to reduce bitumen production to a level where there is no excess produced water, allowing MEG's produced water line to be temporarily re-purposed to transport brine water to the disposal wells. A disruption could result from a pipeline rupture (due to corrosion) or failure of a critical component along the pipeline, (e.g. valve, flange), following which the pipeline would be temporarily suspended until the issue is resolved.

**Timeframe**

More than 6 years

**Magnitude of potential impact**

Low

**Likelihood**

Very unlikely

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

20,000,000

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

**Potential financial impact figure - maximum (currency)**

**Explanation of financial impact**

The potential financial impact is the estimated loss of revenue from reduced bitumen production due to the suspension of the brine disposal pipeline for repair purposes. The financial impact was calculated as: reduction in bitumen production x duration of suspension x price per barrel, estimating suspension of the brine disposal pipeline would require a reduction in bitumen production by 10-15% of normal production volumes, a suspension duration of approximately 1 month, and 2021 price per barrel of bitumen.

**Primary response to risk**

Other, please specify

Monitoring and maintenance programs and emergency response plan

**Description of response**

MEG employs a number of risk mitigation measures with the primary objective of preventing disruption of the brine disposal pipeline operation, and the secondary objective of minimizing the impact should such a disruption occur. Primary preventative measures include: a robust pipeline integrity management program involving planned maintenance, inspections and integrity operating windows (based on criteria for appropriate water quality and operating conditions). Leak tests are scheduled and occur every 1-2 years. The secondary response measure include leak detection (both primary leak detection involving mass balance with flow meters and secondary leak detection involving groundwater monitoring along the pipeline right of way) and the flexibility to temporarily re-purpose the produced water disposal pipeline to transport brine water. MEG also has an emergency response plan in place designed to minimize the impact of a failure of the brine disposal pipeline.

**Cost of response**

250,000

**Explanation of cost of response**

The annual cost of primary preventative and secondary response measures such as corrosion specialist, water monitoring and leak testing.

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**Country/Area & River basin**

Canada  
Mackenzie River

**Type of risk & Primary risk driver**

Acute physical  
Other, please specify  
Failure of water infrastructure

**Primary potential impact**

Reduction or disruption in production capacity

**Company-specific description**

MEG's operations require water as an input for various processes and continuous access to water is critical to ensuring uninterrupted operations. While the vast majority of water used is recycled produced water (that was previously injected into the reservoir as steam to heat bitumen), certain central processing plant utilities require non-saline water sources from the Clearwater Formation (note, the water quality from this formation is not high enough to be considered for human consumption or agricultural purposes). This water is transported from the water source wells to MEG's central processing facility via non-saline water source pipelines. If operation of a non-saline water source pipeline is disrupted, MEG may need to reduce utility operations for several days to resolve the issue which could impact MEG's direct operations reducing bitumen production volumes. A disruption could result from a pipeline rupture (due to corrosion) or failure of a critical component along the pipeline, (e.g. valve, flange), following which the pipeline would be temporarily suspended until the issue is resolved.

**Timeframe**

More than 6 years

**Magnitude of potential impact**

Low

**Likelihood**

Very unlikely

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

5,000,000

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

**Potential financial impact figure - maximum (currency)**

**Explanation of financial impact**

The potential financial impact is the estimated loss of revenue from reduced bitumen production due to the suspension of the brine disposal pipeline for repair purposes. The financial impact was calculated as: reduction in bitumen production x duration of suspension x price per barrel, estimating suspension of the brine disposal pipeline would require a reduction in bitumen production by 10-15% of normal production volumes, a suspension duration of approximately 1 month, and 2021 price per barrel of bitumen.

**Primary response to risk**

Other, please specify

Monitoring and maintenance programs and emergency response plan

**Description of response**

MEG employs a number of risk mitigation measures with the primary objective of preventing disruption of the non-saline water source pipeline operation, and the secondary objective of minimizing the impact should such a disruption occur. Primary preventative measures include: a robust pipeline integrity management program involving planned maintenance, inspections and integrity operating windows (based on criteria for

appropriate water quality and operating conditions) The secondary response measures include daily mass balancing and redundant non-saline water pipeline capacity, which could be used to transfer non-saline water during the primary pipeline's outage depending on the location of the rupture or component failure. MEG also has an emergency response plan in place designed to minimize the impact of a failure of the non-saline water source pipeline.

**Cost of response**

250,000

**Explanation of cost of response**

The annual cost of primary preventative and secondary response measures such as corrosion specialist, water monitoring and inspections.

**W4.2a**

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

---

**Country/Area & River basin**

Canada

Other, please specify

Various – Nelson River, Mississippi River

**Stage of value chain**

Supply chain

**Type of risk & Primary risk driver**

Acute physical

Pollution incident

**Primary potential impact**

Other, please specify

Clean-up and environmental remediation costs

**Company-specific description**

MEG's diluted bitumen product is shipped across North America for sale using pipelines and, at times, held in storage at one of several locations prior to sale. Purchased diluent is similarly transported across North America to MEG's production site at CLRP using pipelines. A spill of these transported products, if it were to occur into a body of water, could present significant environmental risk. To, date no such event has occurred. Contamination of a waterway in the transportation system could have a substantive financial impact on MEG. Potential impacts include liability for clean-up costs and environmental remediation or damages to third parties, realization of a discounted selling price or higher transportation costs for MEG's product going forward, and there is the potential for adverse reputational impacts, including impacts on future development of pipeline systems and limitations on market access.

**Timeframe**

More than 6 years

**Magnitude of potential impact**

Medium-low

**Likelihood**

Exceptionally unlikely

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

Yes, an estimated range

**Potential financial impact figure (currency)**

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

0

**Potential financial impact figure - maximum (currency)**

100,000,000

**Explanation of financial impact**

Share of estimated costs for clean-up, environmental remediation and/or third party damages for which MEG is potentially liable.

**Primary response to risk**

Upstream

Other, please specify

Prudent operations and liability and business interruption risk insurance.

**Description of response**

MEG mitigates this exposure by contracting for transportation and storage with reputable and experienced operators with excellent safety records. In some circumstances, the transportation or storage contracts assign liability to the operator. In addition, MEG purchases insurance to protect potential liability for clean-up and environmental remediation costs or damages to third parties. Reputable and experienced operators have excellent safety records and robust integrity/safety management systems (e.g. inspections, maintenance, operating processes) and emergency response protocols.

**Cost of response**

1,000,000

**Explanation of cost of response**

The costs of integrity/safety management and emergency response systems are incurred by the operators and are embedded in the transportation and storage costs MEG pays pursuant to various agreements. MEG's insurance premiums to protect against liability risks exceed \$1 million per year.

**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.**

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**Type of opportunity**

Efficiency

**Primary water-related opportunity**

Improved water efficiency in operations

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

MEG continually assesses opportunities to conserve water resources and improve water use efficiency. MEG identified an opportunity to construct a Mechanical Vapor Compressor (MVC) unit which takes the waste stream from its steam generators, concentrates the impurities five-fold and produces a high quality water stream that can be used as boiler feedwater for the generation of steam. This is considered a strategic opportunity as it results in less water disposal, more effective use of circulating water within its process and contributes to a further reduction of make-up water requirements. The action taken to realize this opportunity was the construction of the MVC in 2020 and commissioning of the MVC in 2021. The strategy can be seen in action via the disposal water stream which has decreased from 6500 m3/day to 1100 m3/day and an increase in bitumen production of about 16,000 bpd with the addition of the MVC and associated steam generators.

**Estimated timeframe for realization**

Current - up to 1 year

**Magnitude of potential financial impact**

High

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

350,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact**

The financial impact figure is an estimated increase in revenue from the additional production. The figure was calculated by multiplying the increase in production (16,000 pbd) by the price per oil (\$60/bbl netback).

## 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.**

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**Facility reference number**

Facility 1

**Facility name (optional)**

Christina Lake Regional Project

**Country/Area & River basin**

Canada

Mackenzie River



**Latitude**

55.666

**Longitude**

-110.714

**Located in area with water stress**

No

**Oil & gas sector business division**

Upstream

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

15,643

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

Higher

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

79

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

657

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

14,907



**Withdrawals from third party sources**

0

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

15,341

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

Higher

**Discharges to fresh surface water**

90

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

15,251

**Discharges to third party destinations**

0

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

302

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

Higher

**Please explain**

Total water withdrawal increased by ~19% due to higher steam generation and higher activity from drilling of new wells. Surface water withdrawal was higher by ~139%, as a result of increased need for road dust suppression due to seasonably drier conditions and increased water to support drilling activity. Non-saline water withdrawals decreased by ~2%, building on optimization projects implemented in previous years to reduce non-saline demand. For this reason, in addition to process testing of a zero-blowdown trial, the saline water withdrawal increased in 2021, by ~22%. Future volumes of total water withdrawal are anticipated to remain relatively steady, however, reservoir technology



development along with optimization projects have the potential to reduce water use intensities. Water disposal volume increased by 19% relating again to higher steam generation. The future discharge volume may remain relatively steady or slightly decreased with the adoption of a blowdown disposal evaporator which will improve water recycle capabilities and reduce blowdown disposal. Total water consumption was ~36% higher mainly due to increased steam generation and absence of an extended facility turnaround that occurred in the year prior. Future volumes of water consumption are anticipated to remain relatively steady or fluctuate in alignment with production. Our definition for change: About the same is within +/- <15%, Lower or Higher +/- 15% to 50%, and Much lower or Much higher +/- >50%.

## W5.1a

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

### Water withdrawals – total volumes

---

**% verified**

Not verified

**Please explain**

No, we are waiting for more mature verification standards and/or processes

### Water withdrawals – volume by source

---

**% verified**

Not verified

**Please explain**

No, we are waiting for more mature verification standards and/or processes

### Water withdrawals – quality by standard water quality parameters

---

**% verified**

Not verified

**Please explain**



No, we are waiting for more mature verification standards and/or processes

**Water discharges – total volumes**

---

**% verified**

Not verified

**Please explain**

No, we are waiting for more mature verification standards and/or processes

**Water discharges – volume by destination**

---

**% verified**

Not verified

**Please explain**

No, we are waiting for more mature verification standards and/or processes

**Water discharges – volume by final treatment level**

---

**% verified**

Not verified

**Please explain**

No, we are waiting for more mature verification standards and/or processes

**Water discharges – quality by standard water quality parameters**

---

**% verified**

Not verified

**Please explain**



No, we are waiting for more mature verification standards and/or processes

**Water consumption – total volume**

**% verified**

Not verified

**Please explain**

No, we are waiting for more mature verification standards and/or processes

## W6. Governance

### W6.1

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

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

### W6.1a

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

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water Company water targets and goals Commitments beyond regulatory compliance	Our water policy is a companywide scope that highlights our responsibility to manage and protect water resources extending from our commitment to sustainable resource development. It describes our recognition that access to water is a human right and that we will incorporate the social, economic, and environmental value of water when considering business decisions and prioritize maintaining a safe and secure water supply across our value chain. The policy outlines the approach we will take and key principles to meet our goals and address challenges as they relate to water.  The policy also highlights our dependency on water to operate our business and that the responsible



	<p>Commitment to water-related innovation</p> <p>Commitment to water stewardship and/or collective action</p> <p>Acknowledgement of the human right to water and sanitation</p> <p>Recognition of environmental linkages, for example, due to climate change</p>	<p>use of this resource is essential to our success. Our ability to access the natural water supply is granted through regulatory approval and consultation with stakeholders that is grounded in our obligation to preserve the quality and availability of water. These obligations encompass the protection of surrounding water resources from excessive withdrawal, preserving the integrity of aquatic ecosystems where we construct and operate facilities, efficient water use in operations and extending those expectations to our suppliers and contractors. We are committed to industry leading and innovative water stewardship of this shared resource.</p>
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## W6.2

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

Yes

## W6.2a

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

Position of individual	Please explain
Board-level committee	<p>How responsibility is related to water issues: The Board of Directors is responsible for the overall stewardship of the Corporation and for overseeing the conduct of the Corporation and activities of management who are responsible for the day-to-day conduct of the business. Under the its mandate, the Board is responsible to oversee ESG issues which impact the Corporation, including (a) overseeing and monitoring management systems and processes relating to the identification, assessment and management of ESG risks and opportunities, including water-related issues. (b) developing the Corporations approach to corporate governance issues, principles, practices and disclosure; (c) approving and monitoring a code of business conduct and ethics for directors, officers, employees and contractors; (d)</p>

	<p>overseeing and monitoring of metrics and targets used by the Corporation to assess/manage ESG risk/ opportunities; and (e) reviewing the ESG reports and other reporting on ESG matters. The Board delegates responsibility for certain ESG matters to Board committees based on mandate and expertise including the Health, Safety and Environment and Reserves Committee (HSERC). The HSERC oversees the implementation of policies and procedures to monitor and mitigate environmental risks, including water. It assists the Board in fulfilling its stewardship with respect to ensuring compliance and applicable laws pertaining to environment including water use and reviewing/ supervising policies/ procedures designed to mitigate water risks/liabilities. The Human Capital and Compensation Committee ensures ESG matters are reflected in compensation policies and the Corporations corporate goals and objectives related to compensation. Examples of water-related decisions: approval of continued strategic investments in MEG’s proprietary eMSAGP/ technologies and 2021 Corporate Performance Scorecard and CEO Objectives, that contribute to water use efficiencies and protection of water resources.</p>
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## 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 - all meetings	<ul style="list-style-type: none"> <li>Monitoring implementation and performance</li> <li>Overseeing major capital expenditures</li> <li>Providing employee incentives</li> <li>Reviewing and guiding annual budgets</li> <li>Reviewing and guiding business plans</li> </ul>	<p>The Board of Directors is responsible for the overall stewardship of the Corporation and for overseeing the conduct of the Corporation and activities of management who are responsible for the day-to-day conduct of the business. Under the Board of Directors mandate, the Board is responsible to oversee environmental, social and governance (ESG)s issues which impact the Corporation, including (a) overseeing and monitoring management systems and processes relating to the identification, assessment and management of ESG risks and opportunities, including water-related issues, greenhouse gas emissions, air and water impacts, and land and wildlife management, (b) developing the Corporations approach to corporate governance issues, principles, practices and disclosure; (c) approving and monitoring a code of business conduct and ethics for directors, officers, employees and contractors; (d) overseeing and monitoring of metrics and targets used by the Corporation to assess and managed ESG risk and opportunities; and (e) reviewing the Corporation’s ESG</p>



		<p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding strategy</p> <p>Reviewing and guiding corporate responsibility strategy</p> <p>Reviewing innovation/R&amp;D priorities</p> <p>Setting performance objectives</p>	<p>reports and other reporting on ESG matters. The Board delegates responsibility for certain ESG matters to the four Board committees from time to time based on mandate and expertise: Audit Committee, Compensation Committee, Governance and Nominating Committee (GNC) and HSER Committee. The Human Capital and Compensation Committee (HCCC) assists the Board to ensure that ESG matters are reflected in compensation policies and guidelines as well as the Corporations corporate goals and objectives related to compensation. The HSER Committee assists the board in fulfilling its stewardship with respect to ensuring compliance and applicable laws pertaining to environment including water and reviewing and supervising policies and procedures designed to mitigate water risks/liabilities. In 2021, the Board approved the 2022 Corporate Performance Scorecard and CEO Objectives with include water related targets – GHG Compliance Intensity, Reportable Spill Intensity and Reportable Spill Count which create incentives for management of water related issues. Other examples of actions include review and approval of continued investments in eMSAGP technologies. The Board and HSERC committee are updated by the CEO, COO and representatives of the ESG and Environment Health &amp; Safety (EH&amp;S) Committees quarterly on MEG’s water-related issues and performance. The ESG committee reports to the CEO and is tasked with supporting the ongoing commitment to ESG, provides guidance and oversight with respect to ESG strategy, priorities and corporate disclosures and is responsible for embedding ESG into practices and behaviors.</p>
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## W6.2d

**(W6.2d) Does your organization have at least one board member with competence on water-related issues?**

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues
Row 1	Yes	Criteria used to assess competence of board members on water-related issues include SAGD operational experience, in particular experience with water management, a critical element of SADG operations. Criteria also include



		environmental, health & safety and regulatory experience all of which pertain to water-related issues as well as corporate governance experience in ESG. Refer to MEG's Management Proxy Circular for further details.
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### W6.3

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

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

Safety, Health, Environment and Quality committee

**Responsibility**

Assessing water-related risks and opportunities  
 Managing water-related risks and opportunities

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

More frequently than quarterly

**Please explain**

The Corporate Environment, Health & Safety (EH&S Committee) is responsible for providing guidance and oversight with respect to EH&S programs, including water-related issues. It reports quarterly to the Board HSERC committee. The committee owner is the COO and consists of senior, interdisciplinary experts throughout the business. Its primary function is to assist MEG in carrying out its responsibilities by reviewing, reporting and making recommendations on policies, management systems and programs with respect to EH&S and exercising due diligence in ensuring such policies, systems and programs are implemented and functioning properly. Monthly meeting discuss potential issues, trends, opportunities, and performance, and targets. Monthly EH&S reports and meeting address saline and non-saline water use and intensity, Water Act, water licence and regulatory compliance such as meeting disposal limits, target performance, and policy developments among other water topics.



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

Other committee, please specify  
Executive ESG Committee

**Responsibility**

Assessing water-related risks and opportunities  
Managing water-related risks and opportunities

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

Quarterly

**Please explain**

Reporting to the CEO, the committee is tasked with supporting MEG’s commitment to ESG including water matters. Specific duties include (a) assist the CEO in setting general strategy with respect to ESG (b) consider/recommend policies and practices (c) oversee reporting and disclosure with respect to ESG matters, including preparing MEG’s ESG disclosures; (d) assist the CEO in overseeing internal and external communications regarding MEG’s position to approach to ESG matters, (e) monitor and keep the CEO apprised of current and emerging ESG matters that may affect the business, operations, performance or public image or are otherwise pertinent to MEG and its stakeholders, make recommendations with respect to polices, practices and disclosure regarding such matters (f) assist in the identification, assessment and management of ESG-related risk/opportunities, including water. In 2021, the committee approved water related targets and water related disclosures including CDP water.

**W6.4**

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

	<b>Provide incentives for management of water-related issues</b>	<b>Comment</b>
Row 1	Yes	

## 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	Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Operating Officer (COO)	Improvements in efficiency - direct operations Other, please specify Pollution prevention	The corporation has adopted CEO objectives which are fully transparent to both employees and shareholders. The purpose of the objectives is to set and ensure alignment on the strategic objectives across the organization. The individual performance weighting contributes 20% of the CEO's short-term incentive compensation. The 2021 CEO objectives include: continuing to advance all aspects of ESG, 2030 and 2050 greenhouse gas targets, alignment with TCFD, 2021 ESG report and sustainable finance options. A portion of the C-suite annual incentives are linked to environmental performance indicators including the management of climate-related issues as identified in the Corporate Performance Scorecard. In 2021 this included GHG Compliance Intensity, Reportable Spill Count and Intensity. These two targets directly create incentives for management of water-related issues. SOR is a key measure of efficiency for SAGD projects, with a lower SOR indicating more efficient steam utilization. By decreasing the amount of steam used, MEG is able to reduce its GHG intensity and per barrel water usage. The spill intensity and successful regulatory inspection targets incentivize the protection of water bodies.
Non-monetary reward	No one is entitled to these incentives		

## W6.5

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

Yes, direct engagement with policy makers

## 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?**

MEG values active engagement with government bodies to fairly represent the position of the organization and reports all lobbying activity in accordance with the Alberta lobbying act which requires periodic registration of lobbying activities. Reports are publicly available. **Process:** A continuous legislative overview informs MEG of proposed changes. A multidisciplinary team regularly monitors developments in water policy and consolidates that information to ensure business interests are protected, and policy trends are understood. MEG engages directly with Government on policy and regulatory issues and provides input into new and existing policy, directives and regulations in order to properly reflect a balanced approach to sustainable development. MEG was an active participant in the development of the new AEP Surface Water Allocation Directive and in the development of the new AER water disposal limit calculations that came into effect under AER Directive 81.

**Inconsistency Management:** To ensure that corporate guidance on activities that influence policy are consistent with MEG's approach to addressing water risk, coordination meetings are held with all departments potentially influenced by the policy to review engagement opportunities and develop strategies if inconsistencies are identified. For example, EH&S Committee which is responsible for identifying potential and emerging risks and opportunities including regulatory changes meets monthly.

## 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)

 2022 MEG AIF.pdf

## W7. Business strategy

### W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	> 30	Issue Integrated: securing, reducing water requirements, regulatory frameworks, water quality & quantity, preserving ecosystems and habitats and stakeholder considerations. Why: MEG's operation rely on a supply of water to achieve long-term business objectives. Our corporate purpose "to supply the world with environmentally and socially responsible energy, while generating long term value for all our stakeholders" indicates the long term perspective on ESG matters, including water. Time horizon: facility lifetime aligned, above 60 years. How: Water-related issues are first identified by an environmental impact assessment (EIA). MEG then incorporates design features; management practices and mitigation plans to support sustainable water use and long-term objectives in facility development. Various water monitoring programs are in place to monitor program effectiveness. MEG's ERM process continues to identify water-related risks with the potential to be significant to long-term objectives. Risks are evaluated based on impact, likelihood and current/potential future business/political environments. Mitigation strategies are updated by management and reviewed by the Board. MEG's overall long-term term business objective is optimizing resource development by SOR reduction. By decreasing the amount of steam used, MEG is able to reduce our per barrel water use. MEG's strategy to achieve this include R&D investment to advance and implementation of reservoir recovery technologies.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	> 30	Issues integrated: efficient use of water, conservation & protection of water resources (avoidance and mitigation of pollution). Why: MEG is committed to support sustainable water use and the protection of water resources, endorsed in our Water Policy. MEG has a dependency on water to operate our business. The responsible use of this resource is essential to our success. Time horizon: facility lifetime aligned, above 60 years. How: A strategic focus on technology drives efficiency gains in operating costs and water performance in terms of efficient use as demonstrated by decreases in SOR. MEG continues the deployment of eMSAGP lead to an SOR of 2.43 in 2021 (industry avg. of 3.1). The initial produced design capacity of MEG's facility was ~60k bbl/d. MEG increased the overall production capacity to ~100k bbl/d through low-cost debottlenecking and expansion projects and redeployment of steam to new well pairs. MEG's



			ERM process continues to identify water-related risks that could potentially be significant to its long-term objectives. Risks are evaluated based on impact, likelihood and current/potential future business/ political environments. Mitigation strategies are updated by management and reviewed by the Board. Water performance, changes to regulatory requirements and regularly updates are communicated to management and the Board. Spill targets drive pollution performance and water source and intensity targets drive improvements in water use and efficiency.
Financial planning	Yes, water-related issues are integrated	> 30	Issues integrated: efficient use of water, water disposal, protection of water resources (avoidance and mitigation of pollution). Why: : MEG is committed to support sustainable water use and the protection of water resources, endorsed in our Water Policy. MEG has a dependency on water to operate our business. The responsible use of this resource is essential to our success. Time horizon: facility lifetime aligned, above 60 years. How: A strategic focus on technology drives efficiency gains in operating costs and environmental performance improvements including water issues such as water use. This is demonstrated by decreases SOR. SOR is a key measure of efficiency for SAGD projects, with a lower SOR indicating that steam is more efficiently utilized. A decrease in the amount of steam used, means reduced per barrel water usage. The application of MEG proprietary technology eMSAGP has enabled MEG to achieve an average SOR of 2.43 in 2021 (in situ industry avg. of 3.1). MEG continued the deployment of eMSAGP technology. Technology development along with optimization projects have reduced water use intensities and further reductions are anticipated. Capital continues to be allocated to optimization projects including eMSAGP. The initial produced design capacity of MEG’s facility was ~60k bbl/d. MEG increased the overall production capacity to ~100k bbl/d through low-cost debottlenecking and expansion projects and redeployment of steam to new well pairs.



## 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**

Not disclosed at this time.

## W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	

## W7.3a

**(W7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization’s business strategy.**

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Climate-related	<p>Our climate-related scenario analysis is focused on climate-related transitional risks. However, in order to better understand potential climate-related physical risks including water-related outcomes, MEG has updated the previous climate change assessment completed in 2008 with more recent data and modelling information from the latest Intergovernmental Panel on Climate Change’s (IPCC) Fifth Assessment Report (AR5).</p> <p>The assessment update provided more recent climate trend comparisons locally and projections of changes in temperature, precipitation and other extreme events that could be expected out to 2050 and 2080. The intent of the revision was to support design reviews and develop mitigation's (if necessary) to minimize the impacts of potential changes in environmental extremes.</p>	<p>Potential water-related physical climate risks include water scarcity, impacts to water infrastructure, and increase in water run off or flooding events..</p>	<p>MEG is focused of efficient bitumen production which includes the efficient use of water and is continuously looking for ways to reduce water use per barrel of oil and per tonne of steam generated, through the implementation of proprietary reservoir technology, facility water recycling and optimization projects.</p> <p>Considerations of acute and chronic physical risks such as potential increases in precipitation, flooding, wildfires or increase in the frequency or severity of extreme weather events that could impact water infrastructure are incorporated into engineering design of facilities and supporting infrastructure and further mitigated through appropriate maintenance and operational procedures.</p> <p>For example, MEG’s facilities ensure that storm water run-off facilities have sufficient capacity to</p>



				<p>manage potential increase in flows and storm events and were designed to handle 1 in 100-year 24-hour rainfall events. MEG also has an extensive environmental monitoring program in place for water and wetlands that will identify trends and support appropriate adaption of operating practices and facilities which includes wetland and culvert monitoring to ensure unobstructed flow of surface water across site infrastructure and prevents flooding.</p>
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## W7.4

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

Row 1

**Does your company use an internal price on water?**

Yes

**Please explain**

In evaluating future operations, MEG’s operating and maintenance costs are estimated based on the assumption that MEG will maintain or increase the percentage of total water that is recycled in its operations. This may include future capital projects to managed produced water from the reservoir.

## W7.5

**(W7.5) Do you classify any of your current products and/or services as low water impact?**



	Products and/or services classified as low water impact	Definition used to classify low water impact	Please explain
Row 1	Yes	MEG has considered both the source quality of water withdrawals and the quantity of water used in determining the water impact of its products.	<p>MEG produces both bitumen and electricity as saleable products, Electricity generation does not have a water dependency, while bitumen production does require water inputs. For this purpose, MEG prioritizes the use of saline ground water which is not considered a source that conflicts with potable or agricultural uses. Neither non-saline or fresh surface water are used directly for steam generation, which is the primary use of water withdrawals accounting for ~96% of overall volumes.</p> <p>In addition, MEG has maintained a make-up water use intensity that is well below the industry average. In 2021, the make-up water use intensity for MEG was 0.11 m3 water per m3 of bitumen which is estimated to be approximately 70% below the industry average.</p>

## W8. Targets

### W8.1

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

Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals



<p>Row 1</p>	<p>Company-wide targets and goals Site/facility specific targets and/or goals Basin specific targets and/or goals</p>	<p>Targets are monitored at the corporate level</p>	<p>MEG considers risks with the potential for substantive impacts to MEG’s operating results and long-term business objectives when identifying and setting company and facility specific goals and target as well as the findings from its materiality analysis. Targets are also identified based on CEO objectives, are in line with long-term business objectives and defined and proposed by subject matter experts and approved by the executive team and the board. The availability of water supplies is a principle factor, amongst others, which could affect MEG’s operating results. MEG CLRP facility requires water to produce steam for bitumen. Steam is generated from recycled produced water and make-up water. The risk is around the capacity of underground reservoirs that provide the make-up water. Make-up water is comprised of non-saline and saline water. These water sources are obtained from subsurface water supplies (aquifers) which include the Upper Clearwater Aquifer and McMurray Aquifer. The availability of water could pose a risk to current and future production. MEG has set company performance indicators to mitigate the water availability risk which include pollution prevention of water sources and efficient use of water creating incentives for management of water and include reductions in GHG intensity and spill prevention. The targets are GHG compliance intensity, reportable spill intensity and reportable spill count. These goals are part of the Health, Safety, and Environment corporate performance indicators which are linked to a portion of all employees annual incentives. Progress is communicated monthly to management and quarterly to the Board of Directors. MEG complies with all regulatory requirements and also sets targets to mitigate the risk of regulatory related water violations. Regulatory requirements include the AER Directive 081 Water Disposal Limits and Reporting Requirements for Thermal In Situ Oil Sands Schemes which outlines water management requirements for the thermal in situ oil sands (SAGD) operations. It sets water disposal limits, which require operators to recycle produced water efficiently and ensure that make-up water is effectively used. Efficient water treatment, recycle, and disposal at thermal operations optimizes overall water use and energy efficiency. The directive establishes a maximum water disposal limit and is a MEG annual target. This target intends to ensure efficient recycling of produced water. In 2020 MEG implemented additional water goals and targets to guide its commitment to water conservation: Maintain zero fresh (potable) water use in thermal operations and Maintain in situ industry leading (top decile) total make-up water use intensity, with non-saline make-up water use intensity less than 0.1m3/m3 oil production.</p>
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## W8.1a

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

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**Target reference number**

Target 1

**Category of target**

Water recycling/reuse

**Level**

Site/facility

**Primary motivation**

Reduced environmental impact

**Description of target**

MEG complies with the AER Directive 081 Water Disposal Limits and Reporting Requirements for Thermal In Situ Oil Sands Schemes which outlines water management requirements for the thermal in situ oil sands (SAGD) operations. It sets water disposal limits, which required operators to recycle produced water efficiently and ensure that make-up water is effectively used. Efficient water treatment, recycle, and disposal at thermal operations optimizes overall water use and energy efficiency. The directive establishes a maximum water disposal limit and is a MEG annual target. This target intends to ensure efficient recycling of produced water and reducing the need for make-up water consumption. This helps achieve water security by reducing the amount of water needed for steam purposes.

**Quantitative metric**

Other, please specify

Water disposal limit (%)

**Baseline year**

2019



**Start year**

2020

**Target year**

2021

**% of target achieved**

100

**Please explain**

Targets under AER Directive 081 Water Disposal Limits and Reporting Requirements for Thermal In Situ Oil Sands Schemes are annual. MEG met both the maximum disposal limit and the recycle requirements in 2021.

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**Target reference number**

Target 2

**Category of target**

Product water intensity

**Level**

Site/facility

**Primary motivation**

Reduced environmental impact

**Description of target**

Maintain in situ industry-leading (top decile) total make-up water use intensity, with non-saline make-up water use intensity less than 0.1 m3 water/m3 oil production. This helps achieve water security by reducing the amount of water needed for bitumen production.

**Quantitative metric**

Other, please specify



Performance per unit of production

**Baseline year**

2019

**Start year**

2020

**Target year**

2021

**% of target achieved**

100

**Please explain**

MEG achieved a make-up water withdrawal intensity of approximately 70% below industry average in 2021 and a non-saline water use intensity of 0.08 m<sup>3</sup> water / m<sup>3</sup> oil production.

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**Target reference number**

Target 3

**Category of target**

Water consumption

**Level**

Site/facility

**Primary motivation**

Reduced environmental impact

**Description of target**



In support of Alberta's Water of Life strategy, MEG is committed to water conservation and protecting aquatic ecosystems. One of the goals of the Water of Life Strategy is a safe, secure drinking water supply. MEG has set a target to maintain zero fresh water (potable) use in thermal operations to support this goal.

**Quantitative metric**

Other, please specify

Water Conservation, Volume of high quality water sources

**Baseline year**

2019

**Start year**

2020

**Target year**

2021

**% of target achieved**

100

**Please explain**

In 2021, MEG did not withdraw fresh (potable) water for the purpose of steam generation.

## 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 are waiting for more mature verification standards and/or processes



## 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.

### 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	Chief Executive Officer (CEO)	Chief Executive Officer (CEO)

### 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)].

Yes

## Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP



	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

**Please confirm below**

I have read and accept the applicable Terms