

# Welcome to your CDP Water Security Questionnaire 2023

## W0. Introduction

### W0.1

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

Enerplus Corporation (Enerplus) has a diversified portfolio of oil and gas properties throughout North America. At the conclusion of 2022, Enerplus divested the majority of its operating Canadian assets through two separate transactions. Throughout 2022, Enerplus produced an average of approximately 100,326 BOE/day, with 61% of the total production from crude oil and natural gas liquids and 39% of the total production originating from natural gas.

We have corporate offices located in Calgary, Alberta, and Denver, Colorado. In 2022, Enerplus had field offices located throughout Alberta, Saskatchewan, Colorado and North Dakota. As of December 31, 2022, Enerplus employed a total of 380 people, including full-time benefit and payroll consultants, 227 of whom were in the United States and 153 of whom were in Canada.

Enerplus strives to continuously improve the efficiency of its energy consumption, reduce our greenhouse gas emissions intensity and provide resources, training and technology to meet our environmental objectives. In 2022, we revised mid-term and long-term targets to reduce our methane emissions intensity, and revised our long-term target to reduce our GHG emissions intensity. In addition, we continued to work towards our mid-term target to reduce freshwater use in our completion operations while continuing to work towards our mid-term health and safety target. We have several additional ongoing environmental initiatives, including:

- greenhouse gas (GHG) emissions and the upgrading of small pneumatic venting equipment;
- site environmental inspection and audit program;
- water management planning including an increased focus on water reuse and recycling;
- waste management and recycling programs;
- fugitive emissions management program; and
- the remediation and reclamation of decommissioned landscapes.

In 2022, Enerplus reported its key environmental and safety metrics in its ESG Report and its TCFD Aligned Reporting Table. Enerplus' efforts in key performance indicator disclosure and community engagement demonstrate our commitment to responsible resource development and to continuous improvement in environment, health, safety and social performance.

## 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, 2022	December 31, 2022

## W0.3

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

Canada

United States of America

## W0.4

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

USD

## W0.5

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

Companies, entities or groups over which operational control is exercised

## W0.6

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

No

## 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	ERF

## W1. Current state

### W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Important	Water is vital for drilling, completions, operations, and maintenance. Often non-freshwater can be used in place of freshwater, however it must be chemically compatible with the operational equipment, formation, and be economically viable. Early in development stages, the primary use of freshwater is for drilling and completions (i.e. hydraulic fracturing), because recycled/brackish/produced water is usually not economical or readily available. The Direct Use Importance Rating of Vital was selected because without sufficient freshwater, development may no longer be economically viable (i.e. increased costs would lead to capital spent elsewhere for greater potential return on investment). Indirectly, freshwater is important to Enerplus' supply chain. For example, steel is used in oil and gas well construction, pipelines and facilities, and steel manufacturing requires freshwater. Therefore, sufficient amounts of economically viable, good quality freshwater are important for the production of steel.
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital	Vital	In 2019, Enerplus began investigating through chemical compatibility analysis the potential for introducing produced water into its North Dakota completions operations. The purpose of this project was to demonstrate produced water would not adversely affect the chemical properties of our hydraulic fracturing fluids, and thus, reduce our freshwater usage in completion operations. In 2020, Enerplus built off of its previous chemical testing work and successfully exceeded its targeted reduction in freshwater use per completions by incorporating produced water. Enerplus continues to integrate produced water reuse into our completions program. Produced water has inherently poor water quality with very high total dissolved solids (TDS) and

			<p>salinity. This project successfully demonstrated our hydraulic fracturing fluid chemical requirements remain viable with a wide range of water quality. Poor water quality will not have an adverse impact as an input to our business.</p> <p>Adequate water quantities are highly important to Enerplus operations. Water quantity inputs to our business have historically been met with freshwater withdrawals from surface water bodies. Enerplus has not been limited in water withdrawals historically and does not anticipate water quantity limitations to impact our business in the future.</p>
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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	Frequency of measurement	Method of measurement	Please explain
Water withdrawals – total volumes	100%	Continuously	Volumetric calculations and/or metering	All water volumes are measured either with meters for continuous flows (i.e. pipelines) or by volumetric calculations (by volume per load multiplied by number of loads) for trucked water. Water metrics are used internally to evaluate performance and are also reported externally to regulators.
Water withdrawals – volumes by source	100%	Continuously	Volumetric calculations	As a standard practice, 100% of water withdrawals are measured and monitored. Water sources are

				classified as surface water, ground water, produced water and third party water from another organization or municipal water sources.
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	100%	Continuously	Volumetric calculations and/or metering	Produced water must be included with regulatory volumetric accounting and reporting (i.e. production accounting). All water volumes are measured either with meters for continuous flows (i.e. pipelines) or volumetric calculations (by volume per load multiplied by number of loads) for trucked water.
Water withdrawals quality	100%	Continuously	Field and lab testing	The chemical composition and compatibility of all withdrawn water must be determined for operational purposes. Some parameters are metered continuously (temperature, hydrogen sulfide content, etc.) while other parameters are measured through laboratory analytical analysis

				initially and again at periodic or set intervals to ensure any material changes are detected (i.e. salinity, radioactive ions, scale forming bacteria, etc.).
Water discharges – total volumes	100%	Continuously	Volumetric calculations and/or metering	As a standard practice, 100% of water discharge volumes are metered and monitored. Water removed by truck is measured by volumetric calculations (by volume per load multiplied by number of loads) with volumes tracked by both sending and receiving parties.
Water discharges – volumes by destination	100%	Continuously	Volumetric calculations and/or metering	Water discharged through a third party will have volumes documented by both the sender and receiver through the truck ticket process. As a standard practice, 100% of water discharge volumes are regularly measured and monitored.
Water discharges – volumes by treatment method	Not relevant			Moderate filtration is provided for water injection at deep underground injection wells.

Water discharge quality – by standard effluent parameters	Not relevant			
Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)	Not relevant			
Water discharge quality – temperature	Not relevant			
Water consumption – total volume	100%	Continuously	Metering	As a standard practice, 100% of water volumes consumed are measured and monitored through continuous metering and supplier invoices if purchasing from a third party.
Water recycled/reused	100%	Continuously	Volumetric calculations and/or metering	As a standard practice, 100% of water that is recycled and reused is measured and monitored through continuous metering or volumetric calculations.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Unknown	No measurement applicable	All Enerplus facilities supply appropriate WASH services to ensure that the quality and quantity of water provided meets the safety standards for all workers and the

				communities where we operate.
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## W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Please explain
Total withdrawals	12,166.79	About the same	Increase/decrease in business activity	About the same	Other, please specify No change forecasted	We forecast to keep operating at approximately the same capacity as 2022, therefore no change is anticipated.
Total discharges	3,624	Much lower	Increase/decrease in business activity	About the same	Other, please specify No change forecasted	We forecast to keep operating at approximately the same capacity as 2022, therefore no change is anticipated.
Total consumption	8,542.79	Much higher	Increase/decrease in business activity	About the same	Other, please specify No change forecasted	We forecast to keep operating at approximately the same capacity as 2022, therefore no change is anticipated.



## 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), how do they compare to the previous reporting year, and how are they forecasted to change?**

	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Please explain
Total withdrawals - upstream	12,166.79	About the same	Increase/decrease in business activity	About the same	Other, please specify No change forecasted	We forecast to keep operating at approximately the same capacity as 2022, therefore no change is anticipated.
Total discharges – upstream	3,624	Much Lower	Increase/decrease in efficiency	About the same	Other, please specify No change forecasted	We forecast to keep operating at approximately the same capacity as 2022, therefore no change is anticipated.
Total consumption – upstream	8,542.79	Much higher	Increase/decrease in business activity	About the same	Other, please specify No change forecasted	We forecast to keep operating at approximately the same capacity as 2022, therefore no change is anticipated.

## W1.2d

**(W1.2d) Indicate whether water is withdrawn from areas with water stress, provide the proportion, how it compares with the previous reporting year, and how it is forecasted to change.**

	Withdrawals are from areas with water stress	Identification tool	Please explain
Row 1	No	Other, please specify We do not operate in areas where water is highly stressed.	

## W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	755	Much lower	Increase/decrease in efficiency	Due to logistical challenges, Enerplus was unable to reuse as much produced water in 2022 as compared to 2021. As a result, more fresh surface water was required to maintain operations.
Brackish surface water/Seawater	Not relevant				Enerplus does not have operations in areas where brackish surface water/seawater is an

					available source.
Groundwater – renewable	Relevant	130	About the same	Increase/decrease in business activity	A decrease in operations occurred where this water is sourced.
Groundwater – non-renewable	Relevant	569.83	About the same	Other, please specify Similar operating pattern from previous year	
Produced/Entrained water	Relevant	10,576	About the same	Other, please specify Similar operating pattern from previous year	
Third party sources	Relevant	135.82	Much higher	Other, please specify More produced water for reuse came from third parties in 2022.	In 2022, third party produced water sourcing increased.

## W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water	Not relevant				
Brackish surface water/seawater	Not relevant				
Groundwater	Relevant	2,110.86	Much lower	Increase/decrease in business activity	In 2021, water flood void space required significant

					volumes of produced water. This work was completed in 2021, therefore volumes were much lower in 2022.
Third-party destinations	Relevant	1,513.41	Much higher	Other, please specify Change in disposal transfer method. In 2022, Enerplus utilized more third party water lines to dispose of water rather than relying on trucking water to disposal. This is why the 2022 number is much higher than previous years.	In 2022, Enerplus utilized more third party water lines to dispose of water rather than relying on trucking water to disposal. This is why the 2022 number is much higher than previous years.

### 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	2,800,786,000	12,166.79	230,199.255514396	We expect this forward trend to remain the same based upon our future activity forecast.

### 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/denominator)**

0.04

**Numerator: water aspect**

Freshwater withdrawals

**Denominator**

Barrel of oil equivalent

**Comparison with previous reporting year**

About the same

**Please explain**

Based on similar operational parameters, our intensity in 2022 was about the same as 2021.

## W1.4

**(W1.4) Do any of your products contain substances classified as hazardous by a regulatory authority?**

	Products contain hazardous substances	Comment
Row 1	Unknown	

## W1.5

**(W1.5) Do you engage with your value chain on water-related issues?**

	Engagement	Primary reason for no engagement	Please explain
Suppliers	Yes		
Other value chain partners (e.g., customers)	No	Other, please specify Currently deemed to be immaterial.	Currently deemed to be immaterial.

## W1.5a

**(W1.5a) Do you assess your suppliers according to their impact on water security?**

**Row 1**

**Assessment of supplier impact**

No, we do not assess the impact of our suppliers and have no plans to do so within the next two years

**Please explain**

**W1.5b**

**(W1.5b) Do your suppliers have to meet water-related requirements as part of your organization’s purchasing process?**

Suppliers have to meet specific water-related requirements	
Row 1	Yes, water-related requirements are included in our supplier contracts

**W1.5c**

**(W1.5c) Provide details of the water-related requirements that suppliers have to meet as part of your organization’s purchasing process, and the compliance measures in place.**

**Water-related requirement**

Complying with going beyond water-related regulatory requirements

**Mechanisms for monitoring compliance with this water-related requirement**

Supplier scorecard or rating

**Response to supplier non-compliance with this water-related requirement**

Suspend and engage

**Comment**

We are continuing to develop and expand upon our supplier engagement process with respect to water-related impacts and opportunities as it applies to our operations and our goals. If applicable, suppliers need to meet our water criteria as part of our sourcing process.

**W1.5d**

**(W1.5d) Provide details of any other water-related supplier engagement activity.**

**Type of engagement**

Information collection

**Details of engagement**

Collect water quantity information at least annually from suppliers (e.g., withdrawal and discharge volumes)

**% of suppliers by number**

Less than 1%

**Rationale for your engagement**

Enerplus has corporate targets pertaining to reducing freshwater usage per completion. It is important to engage with our suppliers to ensure they are aware of this target and help support Enerplus' achievement of it. As we are often charged for water usage, quantity reports are often included as part of invoices.

Reporting to regulatory bodies and meeting minimum standards of discharge is also an important piece of compliance, and we require our suppliers to be diligent in their reporting.

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

Measures of success include satisfactory reporting to meet all internal and external reporting requirements and proper handling according to minimum standards for treatment of discharge.

**Comment**

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**Type of engagement**

Innovation & collaboration

**Details of engagement**

Encourage/incentivize innovation to reduce water impacts in products and services

**% of suppliers by number**

Less than 1%

**Rationale for your engagement**

Enerplus values suppliers who have similar goals in relation to water usage. We expect them to be at the leading edge of implementing new technologies and best practices, and we hope to learn from our engagement with our suppliers.

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

Measure of success would be the successful adoption of best practices and usage of water saving technologies.

**Comment**

## 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?**

	Water-related regulatory violations	Comment
Row 1	No	

## W3. Procedures

### W3.1

**(W3.1) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?**

	Identification and classification of potential water pollutants	How potential water pollutants are identified and classified
Row 1	Yes, we identify and classify our potential water pollutants	Potential water pollutants are identified and classified in Safety Data Sheets in most instances. Our wells produce oil and produced water, which are known water pollutants regulated at both the state and federal level. We hire environmental professionals familiar with potential water pollutants to manage those risks with engineering and operations teams.

### W3.1a

**(W3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.**

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**Water pollutant category**

Oil

**Description of water pollutant and potential impacts**



Oil is our primary product. Potential impacts include a wide variety of ecological impacts ranging from modest impacts to microorganisms to the extreme of harm to fish and birds.

**Value chain stage**

Direct operations

**Actions and procedures to minimize adverse impacts**

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

Resource recovery

Beyond compliance with regulatory requirements

Industrial and chemical accidents prevention, preparedness, and response

**Please explain**

Enerplus puts considerable effort into preventing the release of oil and preparedness in the event oil is released to the environment. We are members of the Sakakawea Area Spill Response where members supply a variety of spill response material (boats, booms, etc.) and summer and winter spill response training annually. Enerplus manages and conducts training on our SPCC plan and is prepared to manage all aspects of potential oil releases to the environment. Enerplus manages mechanical integrity and corrosion prevention programs within its operations to prevent oil releases.

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**Water pollutant category**

Inorganic pollutants

**Description of water pollutant and potential impacts**

Produced water is very high in salinity and TDS. Salinity levels in produced water can damage topsoil's and potentially kill aquatic ecosystems.

**Value chain stage**

Direct operations

**Actions and procedures to minimize adverse impacts**

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

Resource recovery

Beyond compliance with regulatory requirements

Industrial and chemical accidents prevention, preparedness, and response

**Please explain**

Enerplus puts considerable effort into preventing the release of produced water and preparedness in the event produced water is released to the environment. We are members of the Sakakawea Area Spill Response where members supply a variety of spill response material (boats, booms, etc.) and summer and winter spill response training annually. Enerplus manages and conducts training on our SPCC plan and is prepared to manage all aspects of potential produced water releases to the

environment. Enerplus manages mechanical integrity and corrosion prevention programs within its operations to prevent produced water releases. Spill response of produced water is similar to oil on land, but cannot be skimmed once released to water bodies such as lakes and rivers. Preventing a continued release at the source is the most effective response in the event of an ongoing release.

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**Water pollutant category**

Other, please specify

Various chemicals

**Description of water pollutant and potential impacts**

Various chemicals used during the oil and gas development and production process. Impacts include a wide variety of potential outcomes.

**Value chain stage**

Supply chain

Product use phase

**Actions and procedures to minimize adverse impacts**

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

Resource recovery

Beyond compliance with regulatory requirements

Industrial and chemical accidents prevention, preparedness, and response

Provision of best practice instructions on product use

Reduction or phase out of hazardous substances

Requirement for suppliers to comply with regulatory requirements

**Please explain**

Enerplus and its service providers follow safety procedures for use and disposal provided by product manufacturers.

**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.**

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**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**

Annually

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

1 to 3 years

**Type of tools and methods used**

Enterprise risk management

**Tools and methods used**

Other, please specify

Internal company methods including employee and vendor knowledge, materiality assessment and scenario analysis

**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

Status of ecosystems and habitats

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

**Stakeholders considered**

Employees

Investors

Local communities

NGOs

Regulators

Suppliers

Water utilities at a local level

Other water users at the basin/catchment level

**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.**

	Rationale for approach to risk assessment	Explanation of contextual issues considered	Explanation of stakeholders considered	Decision-making process for risk response
Row 1	Our rationale for our approach to risk assessment is linked to our corporate planning process and planning time horizons. Annual project risk assessments are conducted to assess the short (1-3 years), medium (3-10 years) and long-term (10+ years) time horizons. While project risk assessments are typically conducted annually, special circumstances can lead to risk assessments being conducted more frequently than annually.	A comprehensive risk assessment is completed for all of Enerplus' operational areas. An in-depth understanding of all potential risks is necessary to quantify the likelihood and severity of the risks, and to develop mitigation strategies to bring the risks within acceptable levels. The risk assessment includes risks to direct operations and the potential risk for interruption within the supply chain. These risk assessments include water-related risks as access to economically viable water is vital to our continued operations.	Stakeholders considered include all of those applicable throughout the process of identifying, assessing and responding to water-related risks within our direct operational boundary. Employees, suppliers, local communities and regulators are consulted when required, water utilities at the local level are always considered throughout the water use determination and use process. Investor and NGO sentiment is also considered when making water-related risk decisions.	Risk-response is translated into economic metrics for the purpose of comparing project risks across varied jurisdictions and operational areas. For example, risk of adequate water supply would be assigned a cost that would represent the risk of using an alternative source of water if supply disruption were to occur with the primary source. If the risk cost were greater than potential project profits, the project would have to be de-risked prior to implementation.

## 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?**

No

### W4.1a

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

Enerplus defines substantive as applicable to direct operations only. Metrics used to determine substantive impact include: proved reserves, annual production, net income, cashflow, fixed and variable operational costs, finding and development costs and capital efficiencies. These metrics are reviewed annually. Due to variable economic parameters, specific thresholds used to determine if impact is substantive vary by operational area.

Substantive impact is defined as impacting the economic viability of an operational area or facility, triggering a new evaluation of whether the facility is a net asset or liability. For instance, if the cash flows no longer exceed the anticipated abandonment or the cumulative positives are less than the book value (up front capital), there may be net loss.

One example of substantive impact considered would be the lack of economically viable water for hydraulic operations. If regional water shortages led to surface water withdrawal curtailments, water may have to be purchased at additional costs. At some tipping point, the economics of the well might no longer make business sense. These evaluations are done throughout the project lifecycle.

## W4.2b

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

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	During annual asset area reviews, the likelihood and potential severity of water risks are assessed using internal company knowledge and conversations with vendors and regulators. While the risk of water supply disruption exists, in all cases the water risks were deemed to be temporary in nature and limited in geographic scale. During a disruption to water supply a contingency water source would be used. During annual asset reviews, no risks with potential business impacts greater than the assigned thresholds were identified. Risk assessments are completed annually, with additional ad hoc assessments conducted as required.

## W4.2c

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

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	Supplier water risk was assessed but no substantive risk was identified. By using available databases and conversations with vendors, Enerplus conducted a risk assessment of supply chain water risk and concluded these risks are not substantive, with no potential business impact greater

		<p>than \$10M. Individual areas of increased water risk were identified, however these areas were seasonal and limited in geographic scale to specific river basins. Adequate project planning would mitigate these risks to acceptable levels. Geographically diversified operations have historically reduced our water-related risks to acceptable levels that are not likely to cause significant business impacts. In the event that a supply disruption occurs, alternative supply would be secured, minimizing business impacts. Risk assessments are completed annually, with additional assessments taking place throughout the year as required.</p>
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### 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**

Cost savings

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

In North Dakota, Enerplus uses temporary above ground pipelines to move water from the water source to the wellsite for our hydraulic fracturing operations. Typically, water is hauled to the site by water tankers. We saw many positive results including cost savings, a significant reduction in the number of trucks using local roads, decreased road noise, decreased dust, reduction in vehicle emissions, and reduced impacts to wildlife.

**Estimated timeframe for realization**

Current - up to 1 year

**Magnitude of potential financial impact**

Medium-high

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

Yes, an estimated range

**Potential financial impact figure (currency)**

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

1,000,000

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

3,000,000

**Explanation of financial impact**

The financial impact was derived by comparing inclusive costs of moving water by means of pipeline and trucking. Depending on site location, the reduction cost of conveying water is realized based on 10-mile distance. Temporary surface pipeline costs averages \$0.81/bbl (USD), while water trucking costs averages \$1.26/bbl. (USD).

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**Type of opportunity**

Efficiency

**Primary water-related opportunity**

Cost savings

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

Enerplus has voluntarily modified our hydraulic fracturing fluids to allow the reuse of highly saline produced water as a substitute for freshwater during completion operations. These efforts allowed Enerplus to conserve nearly 4 million barrels of freshwater in 2022.

**Estimated timeframe for realization**

Current - up to 1 year

**Magnitude of potential financial impact**

Medium-high

**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)**

2,000,000

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

4,000,000

**Explanation of financial impact**

The financial impact was derived by calculating the amount of freshwater needs that are being reduced due to the ability to reuse produced water in completions activities. The

cost for freshwater averages \$0.76/bbl. (USD). This cost reflects the direct savings attributed to not purchasing additional freshwater for use in completions.

## 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 the scope (including value chain stages) covered by the policy Description of business dependency on water Description of business impact on water Commitment to align with international frameworks, standards, and widely-recognized water initiatives Commitment to reduce water withdrawal and/or consumption volumes in direct operations Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Commitment to stakeholder education and capacity building on water security Commitment to water stewardship and/or collective action	Enerplus is committed to proactively mitigating our impacts on water resources. Although we require water to explore and produce oil and natural gas, we always comply with all regulations to extract and dispose of water appropriately. Additionally, wherever possible, we use non-potable water and we recycle water to reduce the amount of freshwater we use. We continue to work with communities to do all we can to mitigate regional water issues. In addition to this, we had produced water from our North Dakota operations chemically tested to determine feasibility of reuse throughout our hydraulic fracturing operations. We've continued to succeed in our produced water inclusion reaching a 36% produced water inclusion, on average, in 2022. In 2021 we acquired additional land assets in North Dakota that are further away from available produced water. This growing land base has caused us to consider transportation safety and increases to trucking emissions in our risk determination process when considering using produced water in our completions operations. In light of this, we are revising our mid-term water target to an average of 25% produced water inclusion between 2023 - 2025 in our completion programs in North Dakota.



	<p>Commitment to the conservation of freshwater ecosystems</p> <p>Commitments beyond regulatory compliance</p> <p>Reference to company water-related targets</p> <p>Acknowledgement of the human right to water and sanitation</p> <p>Recognition of environmental linkages, for example, due to climate change</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 or committee	Responsibilities for water-related issues
Board-level committee	<p>The Enerplus Board of Directors Reserves, Safety and Social Responsibility (RS&amp;SR) Committee was established to guide the development and implementation of an effective RS&amp;SR management system and to ensure activities are planned and executed safely and responsibly. Additionally, the committee is tasked with overseeing environmental and regulatory compliance, safety performance and emergency response plans, stakeholder engagement activities and associated ESG performance metrics.</p> <p>The RS&amp;SR Committee reviews the corporation's performance related to RS&amp;SR quarterly to ensure that long-range preventative programs are in place to limit or mitigate future liability. The RS&amp;SR Committee is comprised of three independent directors, at a minimum, which are appointed annually following the annual general meeting of the Corporation. Enerplus' Chief Executive Officer is responsible for the board liaison role. The RS&amp;SR board committee chair presents verbal and/or written reports regarding the corporation's RS&amp;SR performance, committee meetings and discussions at quarterly meetings of the board of directors.</p>

## 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>Monitoring progress towards corporate targets</li> <li>Overseeing acquisitions, mergers, and divestitures</li> <li>Overseeing major capital expenditures</li> <li>Overseeing the setting of corporate targets</li> <li>Providing employee incentives</li> <li>Reviewing and guiding annual budgets</li> <li>Reviewing and guiding business plans</li> <li>Reviewing and guiding corporate responsibility strategy</li> <li>Reviewing and guiding major plans of action</li> <li>Reviewing and guiding risk management policies</li> <li>Reviewing and guiding strategy</li> <li>Reviewing innovation/R&amp;D priorities</li> <li>Setting performance objectives</li> </ul>	<p>The manager of the Corporate Sustainability department briefs the board on relevant matters related to water risks, such as potential water short areas due to regional climate trends.</p> <p>The board oversees all new capital projects, major capital expenditures, guides business plans and risk management policies. If water risks are deemed substantive, mitigations must be put in place to bring the water related risks within acceptable risk tolerances.</p>

## W6.2d

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

	<b>Board member(s) have competence on water-related issues</b>	<b>Criteria used to assess competence of board member(s) on water-related issues</b>
Row 1	Yes	Significant experience (>15 years) relating to strategic management of environmental, social, and health & safety. Expertise in capital markets and ESG oversight.

## 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).**

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

Chief Executive Officer (CEO)

**Water-related responsibilities of this position**

Assessing future trends in water demand  
 Assessing water-related risks and opportunities  
 Managing water-related risks and opportunities  
 Monitoring progress against water-related corporate targets  
 Providing water-related employee incentives  
 Other, please specify  
 Awareness and understanding of pertinent trends, risks and opportunities are presented and discussed quarterly, at a minimum

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

More frequently than quarterly

**Please explain**

The CEO is ultimately responsible for all financial business decisions within the company. Any substantive risks including water-related issues that arise that may affect a projects economic viability will be reported to the CEO during recurring accountability monthly meetings when asset managers provide updates to the senior leadership team.

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

Chief Financial Officer (CFO)

**Water-related responsibilities of this position**

Assessing future trends in water demand

Assessing water-related risks and opportunities  
Managing water-related risks and opportunities  
Monitoring progress against water-related corporate targets  
Providing water-related employee incentives  
Other, please specify

Awareness and understanding of pertinent trends, risks and opportunities are presented and discussed quarterly, at a minimum

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

More frequently than quarterly

### **Please explain**

Any substantive risks including water-related issues that arise that may affect a projects economic viability will be reported to the CFO during recurring accountability monthly meetings when asset managers provide updates to the senior leadership team.

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

Safety, Health, Environment and Quality committee

### **Water-related responsibilities of this position**

Assessing future trends in water demand  
Assessing water-related risks and opportunities  
Managing water-related risks and opportunities  
Conducting water-related scenario analysis  
Setting water-related corporate targets  
Monitoring progress against water-related corporate targets  
Managing public policy engagement that may impact water security  
Integrating water-related issues into business strategy

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

More frequently than quarterly

### **Please explain**

Part of the ESG Management Committee's role is to oversee, review and guide risk management policies, guide annual budgets, guide business plans, oversee major capital expenditures, monitor and oversee progress against goals and targets for addressing climate and water-related issues.

---

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

Environment/Sustainability manager

### **Water-related responsibilities of this position**

Assessing future trends in water demand  
Assessing water-related risks and opportunities  
Managing water-related risks and opportunities

Conducting water-related scenario analysis  
Setting water-related corporate targets  
Monitoring progress against water-related corporate targets  
Integrating water-related issues into business strategy

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

More frequently than quarterly

**Please explain**

To understand and report water-related risks and opportunities to the ESG Management Committee, which includes the executive team, at a minimum of quarterly, or as new risks and opportunities present themselves.

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

Business unit manager

**Water-related responsibilities of this position**

Assessing future trends in water demand  
Assessing water-related risks and opportunities  
Managing water-related risks and opportunities  
Monitoring progress against water-related corporate targets

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

More frequently than quarterly

**Please explain**

To understand and report water-related risks and opportunities to the executive team at a minimum of monthly, or as new risks and opportunities present themselves.

---

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

Facilities manager

**Water-related responsibilities of this position**

Assessing future trends in water demand  
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**

To understand and report water-related risks and opportunities to the executive team at a minimum of monthly, or as new risks and opportunities present themselves.

## W6.4

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

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	Operational goals and targets pertaining to water management and freshwater use reduction are part of the organization's compensation structure and scorecard which applies to all company employees including C-suite members.

## 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	Contribution of incentives to the achievement of your organization's water commitments	Please explain
Monetary reward	Director on board Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Operating Officer (COO) Other C-suite Officer All executives and employees are included. Other, please specify All executives and employees are included.	Reduction in water consumption volumes – direct operations Other, please specify Target specifies reduction in freshwater use in completions and increase in produced water reuse in completions.	Target specifies reduction in freshwater use in completions and increase in produced water reuse in completions.	
Non-monetary reward				

## 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, trade associations

## 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?**

The process used to ensure consistency between activities to influence public policy and our own water policy is to communicate with a single point of contact that is well versed on our water policy. In the US, communication pathways between industry and government include the American Exploration & Production Council (AXPC), the Colorado Oil & Gas Association (COGA), and the Western Energy Alliance (WEA). AXPC is a member based industry trade association which promotes advocacy and education through regulator engagement. COGA is at the forefront of the legal, legislative, and regulatory issues facing its member companies and is continually setting the benchmark for innovation and creativity in our education and outreach strategy. WEA is a non-profit trade association engaged in all aspects of environmentally responsible exploration and production of oil and natural gas in the western US. In Canada, the communication path between industry and government is primarily managed by the Canadian Association of Petroleum Producers (CAPP), the main trade association for our industry. CAPP engages with individual organizations and compiles response letters that go directly to the government. These response letters must align with industry best practices, water policies, and commitments prior to being signed off on by member companies.

## 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)

 ESGReport\_2023.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	21-30	The availability of an economically viable water source is integrated into long-term project reviews. All risks including water related risks that could impact the economic viability of a project are reviewed annually as part of the long-range planning reviews. Risks deemed not acceptable will be mitigated to a point where they are deemed an acceptable risk.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	21-30	Enerplus does not operate in any water-stressed areas. Looking forward as per our long range plans, we do not believe we will be operating in water-stressed areas based upon our current assets. The strategy for addressing water related issues in the long range plan will be the same as addressing all individual risks - to identify them and mitigate them to an acceptable level before proceeding.
Financial planning	Yes, water-related issues are integrated	5-10	To date, no water specific financial planning aspects have been required as no substantive risks to water availability have been identified.

## 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)**

-10

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

7

**Water-related OPEX (+/- % change)**

13

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

11

**Please explain**

CAPEX explanation: In 2022, higher WTI and inflationary pressures impacted water-related CAPEX performance. The anticipated forward trend for water-related CAPEX is based upon winter operations occurring and different from routine stage design on certain pads which include additional stages and a higher water cut. OPEX explanation: Water volumes increased by 10% in 2022 from 2021, and rates have increased by 13%



driven by high WTI and inflation pressure on trucking rates and diesel. The anticipated forward trend is for water volumes to decrease by 3% while rates are anticipated to increase by 11% due to CPI increase and inflation pressure on trucking rates and diesel.

### W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	High level climate-related scenario analysis is included within ongoing project review and long-range planning project risk assessments. This consists mainly in relation to climate-related water scarcity causing water availability concerns.

### 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 Other, please specify Internal company knowledge	Scenario analysis was conducted to better understand water scarcity related to climate-related changes. Enerplus' operations are focused on and around the Fort Berthold Indian Reservation (FBIR), which is adjacent to the Missouri River and Lake Sakakawea. The Missouri River Basin and Lake Sakakawea are significant water resources with significant senior water rights owned by the Mandan, Hidatsa and Arikara (MHA) Nation. Parameters for this analysis include our acreage position, our future position and plans for this acreage, and our evolving operational practices.	Through this scenario analysis, it was determined that water scarcity is not a risk to Enerplus' operations due to the significant water resources available in relation to the organizations 10 to 15 future-year position of oil and gas development within impacted acreage.	Despite determining no substantive water-related outcomes, Enerplus has proactively modified its hydraulic fracturing design to allow significant reuse of highly saline produced water from oil wells in the area to reduce our dependence on and need for freshwater inputs.

## 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**

Enerplus develops an internal price on water based on the cost of water procurement. The internal price can vary for each project and is based on a number of factors including the location, water source, required treatment and transportation method (pipeline, trucking, etc.).

## 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	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	No, and we do not plan to address this within the next two years		

## W8. Targets

### W8.1

**(W8.1) Do you have any water-related targets?**

Yes

#### W8.1a

**(W8.1a) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.**

	Target set in this category
Water pollution	
Water withdrawals	Yes
Water, Sanitation, and Hygiene (WASH) services	
Other	

## W8.1b

(W8.1b) Provide details of your water-related targets and the progress made.

---

**Target reference number**

Target 1

**Category of target**

Water withdrawals

**Target coverage**

Company-wide (direct operations only)

**Quantitative metric**

Other, please specify

Produced water inclusion equating to freshwater use reduction - average water composition per completion

**Year target was set**

2020

**Base year**

2019

**Base year figure**

0

**Target year**

2025

**Target year figure**

3,738,379

**Reporting year figure**

2,724,255

**% of target achieved relative to base year**

72.8726274142

**Target status in reporting year**

Underway

**Please explain**

Enerplus defines freshwater as surface water and shallow groundwater sources (depths less than 150 meters). Using alternatives to freshwater when economically feasible is an industry best practice. This target also aligns with Enerplus' social responsibility beliefs. When water is sourced, alternatives to freshwater are prioritized when economically viable.

In 2019, Enerplus began an investigative study into the feasibility of treating its produced water to include it in completion operations in our North Dakota operations, thereby reducing our use of freshwater. This study was successful and led to our establishing a freshwater use reduction of 50% per well completion in 2025. To date, Enerplus has achieved a 36% produced water inclusion, on average, per completions.

In 2021, Enerplus acquired additional acreage in North Dakota increasing future challenges in procuring produced water. Target year figures reflect produced water inclusion and are based on 2022 completions forecasting projections.

## W9. Verification

### W9.1

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

Yes

 AssuranceStatement\_2023.pdf

### W9.1a

**(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?**

Disclosure module	Data verified	Verification standard	Please explain
W8 Targets	Average water composition per completion (percentage)	Other, please specify Limited Assurance	Limited Assurance of our Average water composition per completion (percentage)

## W10. Plastics

### W10.1

**(W10.1) Have you mapped where in your value chain plastics are used and/or produced?**

	Plastics mapping	Please explain
Row 1	Not mapped – and we do not plan to within the next two years	Plastics are not material to our operations or business model.

## W10.2

**(W10.2) Across your value chain, have you assessed the potential environmental and human health impacts of your use and/or production of plastics?**

	Impact assessment	Please explain
Row 1	Not assessed – and we do not plan to within the next two years	Plastics are not material to our business model.

## W10.3

**(W10.3) Across your value chain, are you exposed to plastics-related risks with the potential to have a substantive financial or strategic impact on your business? If so, provide details.**

	Risk exposure	Please explain
Row 1	Not assessed – and we do not plan to within the next two years	Plastics are not material to our operations or business model and are therefore not deemed to have substantive financial or strategic impact.

## W10.4

**(W10.4) Do you have plastics-related targets, and if so what type?**

	Targets in place	Please explain
Row 1	No – and we do not plan to within the next two years	Plastics are not material to our operations or business model.

## W10.5

**(W10.5) Indicate whether your organization engages in the following activities.**

	Activity applies	Comment
Production of plastic polymers	No	
Production of durable plastic components	No	
Production / commercialization of durable plastic goods (including mixed materials)	No	
Production / commercialization of plastic packaging	No	
Production of goods packaged in plastics	No	
Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services)	No	

## W11. Sign off

### W-FI

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

### W11.1

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

	Job title	Corresponding job category
Row 1	Manager, Corporate Sustainability	Environment/Sustainability manager

## 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 indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.**

Yes, CDP may share our Main User contact details with the Pacific Institute

**Please confirm below**

I have read and accept the applicable Terms