# **CDP**

# Water 2014 Information Request Enerplus Corporation

**Module: Introduction** 

Page: W0. Introduction

#### W0.1

#### Introduction

Please give a general description and introduction to your organization.

Enerplus Corporation (Enerplus') converted its business from an income trust structure (as established in 1986) to a corporate structure effective January 1, 2011. Enerplus' has a diversified portfolio of oil and gas properties throughout Western Canada and the United States and produced an average daily production of approximately 90,000 BOE/day, 54% from natural gas and 46% from crude oil and natural gas liquids throughout 2013.

Enerplus' enterprise value is currently estimated at CDN\$5,945,940,280. The head office is located in Calgary, Alberta and the United States office in located in Denver, Colorado. Enerplus' also has twelve field offices located throughout British Columbia, Alberta, Saskatchewan, West Virginia, Montana and North Dakota. As of December 31, 2013, Enerplus' employed a total of 707 persons, including full-time benefit and payroll consultants.

Enerplus' has an asset base that is both geologically and geographically diverse. It is focused on both early stage resource plays that offer growth potential as well as more mature cash generating properties that provide a steady cash flow stream. Enerplus' 2013 capital program was focused in four core areas that include - the U.S. Bakken/Three Forks, the Marcellus, Canadian crude oil waterfloods and deep gas opportunities within the Deep Basin region of Alberta.

### W0.2

### Reporting Year

Please state the start and end date of the year for which you are reporting data.

# Period for which data is reported

Tue 01 Jan 2013 - Tue 31 Dec 2013

# W0.3

# **Reporting Boundary**

Please indicate the category that describes the reporting boundary for companies, entities, or groups for which water-related impacts are reported.

Companies, entities or groups over which operational control is exercised

# W0.4

### **Exclusions**

Are there any geographies, facilities or types of water inputs/outputs within this boundary which are not included in your disclosure?

No

### W0.4a

**List of Exclusions** 

Please report the exclusions in the following table

Exclusion	Please explain why you have made the exclusion

# **Further Information**

**Module: Current State** 

Page: W1. Context

W1.1

# Please rate the importance (current and future) of water quality and water quantity to the success of your organization

Water quality and quantity	Importance rating	Please explain
Direct use: sufficient amounts of good quality freshwater available for use across your own operations	Vital for operations	Enerplus' utilizes water for drilling, completions, operations and maintenance. In most instances non-fresh water can be used in place of fresh water, however non-fresh water must be chemically compatible with the formation and available.
Direct use: sufficient amounts of recycled, brackish and/or produced water available for use across your own operations	Vital for operations	The use of non-fresh water may add additional costs associated with the treatment of water prior to use to ensure compatibility. The cost of transportation associated with moving recycled water from point of origin to point of use may make the use of non-fresh water cost prohibitive.
Indirect use: sufficient amounts of good quality freshwater available for use across your value chain	Important	This is under evaluation but the assessment is not completed yet.
Indirect use: sufficient amounts of recycled, brackish and/or produced water available for use across your value chain	Have not evaluated	This is under evaluation but the assessment is not completed yet.

Have you evaluated how water quality and water quantity affects /could affect the success (viability, constraints) of your organization's growth strategy?

Not evaluated

W1.2a

Please explain how your organization evaluated the effects of water quality and water quantity on the success (viability, constraints) of your organization's growth strategy?

### W1.2b

What is the main reason for not having evaluated how water quality and water quantity affects /could affect the success (viability, constraints) of your organization's growth strategy, and are there any plans in place to do so in the future?

Main reason	Current plans	Timeframe until evaluation	Comment
Other: In progress and not yet evaluated.	Yes	Next 24-36 months	Enerplus' recognizes the importance of conducting water risk analysis. A water risk assessment has been initiated, and is expected to be complete by end of 2015.

## W1.3

Has your organization experienced any detrimental impacts related to water in the reporting period?

No

Please describe the detrimental impacts experienced by your organization related to water in the reporting period

Country	River basin	Impact indicator	Impact	Description of impact	Overall financial impact	Response strategy	Description of response strategy
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W1.3b

Please choose the option below that best explains why you do not know if your organization experienced any detrimental impacts related to water in the reporting period and any plans you have to investigate this in the future

Primary reason Future plans

### **Further Information**

**Module: Risk Assessment** 

Page: W2. Procedures and Requirements

W2.1

Please select the option that best describes your procedures with regard to assessing water risks and provide an explanation as to why this option is suitable for your organization

Water risk assessments undertaken independently of other risk assessments across some direct operations

## W2.1a

# You may provide additional information about your approach to assessing water risks here

Currently, water risks to new development and expansion of existing operations are assessed on a project level. Water source options are evaluated and assessed against project criteria on a case specific basis. To enhance risk understanding, a comprehensive water risk analysis of water quality and quantity is expected to be completed by the end of 2015.

### W2.2

Please state how frequently you undertake water risk assessments, what geographical scale and how far into the future you consider

Frequency	Geographic scale	Timeframe
A comprehensive water risk assessment is in progress. Following completion of the first risk assessment Enerplus' will review key factors within each operational area on a bi-annual basis to evaluate for presence of significant changes to factors that would affect the outcome of risk assessment.	Country	As part of our water risk initial assessment process we consider water risks in 2013 and 3 years into the future.

### W2.3

Please state the methods used to assess water risks

# Method

Other: Enerplus Water Source Decision Tool

# W2.4

# Which of the following contextual issues are always factored into your organization's water risk assessments?

Issues	Choose option	Please explain
Current water availability and quality parameters at a local level	Relevant, included	Water availability and quality is assessed for each project.
Current water regulatory frameworks and tariffs at a local level	Relevant, included	To ensure compliance with regulations.
Current stakeholder conflicts concerning water resources at a local level	Relevant, included for some facilities/suppliers	Through the regulatory process, stakeholder concerns are addressed.
Current implications of water on your key commodities/raw materials	Not evaluated	A risk assessment of water quality and quantity is underway. Historically, there have been no concerns of the lack of available water as any water quality required can be treated (albeit at a cost).
Current status of ecosystems and habitats at a local level	Not relevant, explanation provided	Regulator driven
Estimates of future changes in water availability at a local level	Relevant, not yet included	A risk assessment of water quality and quantity is underway.
Estimates of future potential regulatory changes at a local level	Relevant, included for some facilities/suppliers	If regulatory changes are anticipated, alternatives are evaluated to reduce risk to operations
Estimates of future potential stakeholder conflicts at a local level	Relevant, not yet included	A water risk assessment currently underway for Enerplus' operations will address future potential stakeholder conflicts.
Estimates of future implications of water on your key commodities/raw materials	Relevant, not yet included	A water risk assessment currently underway for Enerplus' operations will address future water implications on our operations
Estimates of future potential changes in the status of ecosystems and habitats at a local level	Relevant, not yet included	A water risk assessment currently underway for Enerplus' operations will address future water implications on our operations
Scenario analysis of availability of sufficient	Not evaluated	A water risk assessment currently underway for Enerplus' operations will

Issues	Choose option	Please explain
quantity and quality of water relevant for your operations at a local level		address future water implications on our operations
Scenario analysis of regulatory and/or tariff changes at a local level	Relevant, not yet included	If existing water supplies in a specific area have the potential to change, the Water Management Plan will be used to assess alternatives that also consider the regulatory regime
Scenario analysis of stakeholder conflicts concerning water resources at a local level	Relevant, not yet included	If existing water supplies in a specific area have the potential to change, the Water Management Plan will be used to assess alternatives that also consider the regulatory regime
Scenario analysis of implications of water on your key commodities/raw materials	Relevant, included	If existing water supplies in a specific area have the potential to change, the Water Management Plan will be used to assess alternatives that also consider the regulatory regime
Scenario analysis of potential changes in the status of ecosystems and habitats at a local level	Relevant, included for some facilities/suppliers	Regulator driven
Other		

# W2.4a

# Which of the following stakeholders are always factored into your organization's water risk assessments?

Stakeholder	Choose option	Please explain
Customers	Not evaluated	Currently, customers of the oil and gas industry have not been a risk factor with respect to water.
Employees	Relevant, not yet included	Employees want to work for a company that values and respects all resources.
Investors	Relevant, not yet included	Investors want to invest in companies that think sustainably in all areas of its operations.
Local communities	Relevant, not yet included	The Water Management Plan is used on new developments that considers the impact to the local communities.
NGOs	Relevant, not yet	The Water Management Plan is used on new developments that considers the other

Stakeholder	Choose option	Please explain
	included	stakeholders and concerns in the area.
Other water users at a local level	Relevant, included	The Water Management Plan is used on new developments that considers the impact to the local communities.
Regulators at a local level	Relevant, not yet included	The Water Management Plan is used on new developments that considers the impact to the local communities.
Statutory special interest groups at a local level	Relevant, not yet included	The Water Management Plan is used on new developments that considers the impact to the local communities
Suppliers	Not evaluated	Alternatives will be assessed and selected in the event supplies are at risk.
Water utilities/suppliers at a local level	Relevant, included	The Water Management Plan is used on new developments that considers the impact to the local communities.
Other		

# W2.5

Do you require your key suppliers to report on their water use, risks and management?

No

W2.5a

Please provide the proportion of key suppliers you require to report on their water use, risks and management and the proportion of your procurement spend this represents

Proportion of key suppliers %	Total procurement spend %	Rationale for this coverage

# W2.5b

Please choose the option that best explains why you do not require your key suppliers to report on their water use, risks and management

Primary reason	Please explain
Other: Enerplus' has initiated a water risk analysis for all operational phases.	As part of this risk assessment consideration will be given to including requirement for key suppliers to report their water use, risk and management to Enerplus'.

**Further Information** 

**Module: Implications** 

Page: W3. Water Risks

W3.1

Is your organization exposed to water risks, either current and/or future, that could generate a substantive change in your business, operations, revenue or expenditure?

Don't know

W3.2

Please provide details as to how your organization defines substantive change in your business, operations, revenue or expenditure from water risk

Enerplus' defines substantive change as any change that would affect 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 a write down or a test that determines if there needs to be a write down.

W3.2a

Please complete the table below providing information as to the number of facilities in your direct operations exposed to water risks that could generate a substantive change in your business, operations, revenue or expenditure. Please also provide either the proportion of cost of goods sold, global revenue or global production capacity that could be affected across your entire organization at the river basin level

Country	River basin	Number of facilities within the river basin exposed to water risk	Reporting metric	Proportion of chosen metric that could be affected within the river basin
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W3.2b

Please list the inherent water risks that could generate a substantive change in your business, operations, revenue or expenditure, the potential impact to your direct operations and the strategies to mitigate them

Country	River basin	Risk driver	Potential impact	Description of impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs	
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Please list the inherent risks that could generate a substantive change in your business operations, revenue or expenditure, the potential impact to your supply chain and the strategies to mitigate them

Country	River basin	Risk driver	Potential impact	Description of impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
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### W3.2d

Please choose the option that best explains why you do not consider your organization to be exposed to water risks in your direct operations that could generate a substantive change in your business, operations, revenue or expenditure

Primary reason	Please explain

### W3.2e

Please choose the option that best explains why you do not consider your organization to be exposed to water risks in your supply chain that could generate a substantive change in your business, operations, revenue or expenditure

Primary reason	Please explain
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Please choose the option that best explains why you do not know if your organization is exposed to water risks that could generate a substantive change in your business operations, revenue or expenditure and discuss any future plans you have to assess this

Primary reason	Future plans
Environmental risk assessments are incomplete at this time	The risk assessment is expected to be complete in 2015. Uncertainties will be clearer at that time.

**Further Information** 

Page: W4. Water Opportunities

W4.1

Does water present strategic, operational or market opportunities that substantively benefit/have the potential to benefit your organization?

Don't know

W4.1a

Please describe the opportunities water presents to your organization and your strategies to realize them

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Please explain
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## W4.1b

Please choose the option that best explains why water does not present your organization with any opportunities that have the potential to provide substantive benefit

Primary reason	Please explain

## W4.1c

Please choose the option that best explains why you do not know if water presents your organization with any opportunities that have the potential to provide substantive benefit

Primary reason	Please explain
Incomplete analysis	It is anticipated that water sharing agreements with other operators or water users may be possible; however, Enerplus' has initiated a water risk analysis for all operational phases to increase our knowledge if water presents our organization with any opportunities that have the potential to provide a substantive benefit.

# **Further Information**

**Module: Accounting** 

Page: W5. Water Accounting (I)

W5.1

Please report the total withdrawal, discharge, consumption and recycled water volumes across your operations for the reporting period

Water use	Quantity (megaliters)
Total volume of water withdrawn	21244
Total volume of water discharged	21244
Total volume of water consumed	2515
Total volume of recycled water used	4

# W5.2

For those facilities exposed to water risks that could generate a substantive change in your business, operations, revenue or expenditure, the number of which was reported in W3.2a, please detail which of the following water aspects are regularly measured and monitored and an explanation as to why or why not

Water aspect	% of facilities	Please explain
Water withdrawals- total volumes		
Water withdrawals- volume by sources		
Water discharges- total volumes		
Water discharges- volume by destination		
Water discharges- volume by treatment method		
Water discharge quality data- quality by standard effluent parameters		
Water consumption- total volume		
Water recycling/reuse-total volume		

Water withdrawals: for the reporting period, please complete the table below with water accounting data for all facilities included in your answer to W3.2a

Facility reference	ce number	Country	River basin	Facility name	Total water withdrawals (megaliters/year) at this facility	How does the total water withdrawals at this facility compare to the last reporting period?	Please explain the change if substantial
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**Further Information** 

Page: W5. Water Accounting (II)

W5.3a

Water withdrawals: for the reporting period, please provide withdrawal data, in megaliters per year, for the water sources used for all facilities reported in W5.3

Facility reference number	Surface water	Groundwater (renewable)	Groundwater (non- renewable)	Municipal water	Recycled water	Produced/process water	Wastewater	Brackish/salt water
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W5.4

Water discharge: for the reporting period, please provide the water accounting data for all facilities reported in W5.3

	Facility reference number	Total water discharged (megaliters/year) at this facility		al water discharged a are to the last reportir period?		n the change if substantive
W5.4a						
	Water discharge: for the repo	rting period, please provide wa	ater discharge data,	in megaliters per yea	r, by destination for al	I facilities reported in W5.3
	Facility reference Surface number	Municipal water Treatment Plant		Injection for duction/disposal	Aquifer recharge	Storage/waste lagoon
W5.5						
	Water consumption: for the re	eporting period, please provide	e water consumption	n data for all facilities	reported in W5.3	
	Facility reference num	nber Consumptio	on (megaliters/year)		s compare to the last rting period?	Please explain the change if substantive

W5.6

For the reporting period, please provide any available water intensity values for your organization's products or services across its operation

Country	River basin	Product name	Product unit	Water unit	Water intensity (Water unit/Product unit)	Water use type	Comment
Canada	Other: Enerplus' has operations within several river basins. Intensity data is not broken down by river basin.	Oil natural gas, natural gas liquids	Liters	Liters	123	Other: Total volume of water consumed (ie. fresh water withdrawn)	Direct fresh water consumed only, does not included non- fresh water used, or supply chain water
United States of America	Other: Enerplus' has operations within several river basins. Intensity data is not broken down by river basin.	Oil natural gas, natural gas liquids	Liters		144	Other: Total volume of water consumed (ie. fresh water withdrawn)	Direct fresh water consumed only, does not included non-fresh water used, or supply chain water.

# W5.7

# For all facilities reported in W3.2a what proportion of their accounting data has been externally verified?

Water aspect	% verification	What standard was used?
Water withdrawals- total volumes		
Water withdrawals- volume by sources		
Water discharges- total volumes		
Water discharges- volume by destination		
Water discharges- volume by treatment method		
Water discharge quality data- quality by standard effluent parameters		
Water consumption- total volume		
Water recycling/reuse-total volume		

**Further Information** 

**Module: Response** 

Page: W6. Governance and Strategy

W6.1

Who has the highest level of direct responsibility for water within your organization and how frequently are they briefed?

Highest level of direct responsibility for water issues	Frequency of briefings on water issues	Comment
Senior Manager/Officer	Sporadic-as important matters arise	Water risk assessments are conducted on an operational area level. All operational areas and facilities roll up to an Asset area. The Asset Managers have best perspective on operational risks and opportunities within their areas, including water related aspects. Based on this hierarchical breakdown and their detailed knowledge of assets in their areas, the Asset Managers are briefed on water matters as they arise.

# W6.2

Is water management integrated into your business strategy?

Yes

# W6.2a

Please choose the option(s) below that best explain how water has positively influenced your business strategy

Influence of water on business strategy	Please explain
Water resource considerations are factored into new market exploration	Access to adequate water supply is important to all operational stages including exploration, development and operations. At the initial planning stages of new projects Enerplus evaluates potential water sources to ensure sufficient, economically feasible water supply is available.

# W6.2b

# Please choose the option(s) below that best explains how water has negatively influenced your business strategy

Influence of water on business strategy	Please explain
No measurable influence	Enerplus' has no operations in areas where water is not available in quality and quantity required to conduct standard business as usual.

# W6.2c

Please choose the option that best explains why your organization does not integrate water management into its business strategy and discuss any future plans to do so

Primary reason	Please explain
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## W6.3

Does your organization have a water policy that sets out clear goals and guidelines for action?

Yes, a publicly available company-wide water policy

### W6.4

How does your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) during the most recent reporting period compare to the previous reporting period?

Water-related spending: % of total CAPEX during this reporting period compared to last reporting period

Water-related spending: % of total OPEX during this reporting period compared to last reporting period

Motivation for these changes

### **Further Information**

Data not available; water spending is not tracked.

Page: W7. Compliance

### W7.1

Was your organization subject to any penalties and/or fines for breaches of abstraction licenses, discharge consents or other water and wastewater related regulations in the reporting period?

No

## W7.1a

Please describe the penalties and/or fines for breaches of abstraction licenses, discharge consents or other water and wastewater related regulations and your plans for resolving them

Facility name	Incident description	Financial penalty or fine	Currency	Incident resolution
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## W7.1b

Please indicate the total of all penalties and/or fines for breaches of abstraction licenses, discharge consents or other water and wastewater related regulations as a percentage of total operating expenditure (OPEX) compared to last year

## **Further Information**

Page: W8. Targets and Initiatives

W8.1

Do you have any company wide targets (quantitative) or goals (qualitative) related to water?

Yes, goals only

Please complete the following table with information on company wide quantitative targets (ongoing or reached completion during the reporting period) and an indication of progress made

Category of target Mo	Description of target	Quantitative unit of measurement	Base-line year	Target year	Proportion of target achieved, % value
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# W8.1b

Please describe any company wide qualitative goals (ongoing or reached completion during the reporting period) and your progress in achieving these

Goal	Motivation	Description of goal	Progress
Other: complete a Corporate Water Management Plan by year end 2014.	Recommended sector best practice	A Water Management Plan that will include comprehensive water risk analysis regarding water quality and quantity is expected to be complete by year end 2014.	Project has been initiated, vendor selected, initial kick-off meeting complete. Currently undertaking data collection and gap analysis.

W8.1c

Please explain why you do not have any water-related targets or goals and discuss any plans to develop these in the future

# **Further Information**

**Module: Sign Off** 

Page: Sign Off

W9.1

Please provide the following information for the person that has signed off (approved) your CDP water response

Name	Job title	Corresponding job category
Kym Fawcett	Manager, Safety and Social Responsibility	Environment/Sustainability manager

**Further Information** 

CDP