

# CDP Water Security 2016 - Enerplus Corporation

Module: Introduction

Page: W0. Introduction

W0.1

Introduction

Please give a general description and introduction to your organization.

Enerplus Corporation (Enerplus) has a diversified portfolio of oil and gas properties throughout Western Canada and the United States and produced an average of approximately 106,500 BOE/day, with 56% of the total production originating from natural gas, and 44% from crude oil and natural gas liquids throughout 2015.

Enerplus' enterprise value is currently estimated at CAD 3,044,100,000. The head office is located in Calgary, Alberta, and the United States office is located in Denver, Colorado. Enerplus has twelve field offices located throughout British Columbia, Alberta, Saskatchewan, Montana and North Dakota. As of December 31, 2015, Enerplus employed a total of 588 people, including full-time benefit and payroll consultants.

Enerplus continuously improves the efficiency of its energy consumption, strives to reduce our greenhouse gas emissions intensity and provides resources, training and technology to meet our environmental objectives. We have several ongoing environmental initiatives in this regard, including:

- greenhouse gas reduction (GHG) and energy efficiency initiatives through an emissions reduction strategy
- site environmental inspection and audit program;
- facility energy efficiency audits;
- water management planning;
- waste management and waste reduction programs;
- fugitive emissions management program; and
- reclamation of disturbed landscapes to equivalent land capability.

In 2015, Enerplus reported its key environmental and safety metrics in its first ever Sustainability Report, and also as required as part of the Canadian Association of Petroleum Producers (CAPP) Responsible Canadian Energy (RCE) Program. Enerplus' efforts in key performance indicator disclosure, stakeholder engagement,, activity and culture demonstrate its commitment to responsible resource development and to continuous improvement in environment, health and safety and social performance.

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

Thu 01 Jan 2015 - Thu 31 Dec 2015

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

## 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	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital for operations	Important	<p>Fresh water is vital for drilling, completions, operations and maintenance. Often non-fresh water can be used in place of fresh water, however non-fresh water must be chemically compatible with the formation and economically viable. Early in development stages, the primary use of fresh water is for drilling and completions (i.e., hydraulic fracturing), because recycled/brackish/produced water is usually not economically readily available. Importance rating of vital was chosen because without sufficient fresh water development would no longer be possible due to economics (i.e. increased costs would lead to capital spent elsewhere for greater potential returns on investment). Indirectly, freshwater is important to Enerplus' supply chain. For example steel is used in oil/gas well construction, pipelines and facilities; steel manufacturing requires fresh water. Sufficient amounts of economically viable, good quality freshwater are important for the production of steel.</p>
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital for operations	Important	<p>Sufficient volumes of recycled/brackish/produced water are vital for operations. Primary use of recycled/brackish/produced water is for Enhanced Oil Recovery (EOR) water floods. Water is vital to maintain voidage replacement ratio (VRR) in reservoir. For every barrel of oil removed from the reservoir, a barrel of water must be added to the reservoir to maintain VRR. If water was not available to maintain VRR, water flood operations would no longer be possible. From an indirect use perspective, sufficient amounts of recycled, brackish and/or produced water available for use are important to Enerplus' supply chain as well. For example, steel manufacturing uses large amounts of recycled/brackish/produced water for once through cooling. Sufficient amounts of economically viable, recycled/brackish/produced water are important for the production of steel.</p>

W1.2

For your total operations, please detail which of the following water aspects are regularly measured and monitored and provide an explanation as to why or why not

Water aspect	% of sites/facilities/operations	Please explain
Water withdrawals-total volumes	76-100	In most operational jurisdictions, water use reporting is a regulatory requirement. As a standard practice, 100% of water volumes withdrawn, purchased and received from third parties are measured, monitored and recorded internally. Water metrics are used internally to evaluate performance and are reported externally to various audiences (regulators, sustainability reporting, Annual Information Form, etc.).
Water withdrawals-volume by sources	76-100	As a standard practice, 100% of water withdrawal sources are measured, monitored and classified as fresh water, non-fresh water (i.e. saline groundwater), produced water, third party water from another organization or municipal water.
Water discharges-total volumes	76-100	Discharge of industrial use water to surface environment or receiving water body is not permitted. All water is discharged deep underground (greater than 600 meters depth) to maintain reservoir pressure in water flood operations or disposed via deep well injection. As a standard practice, 100% of water discharge volumes are measured and monitored.
Water discharges-volume by destination	76-100	All withdrawn water is discharged to deep groundwater, either through use in water flood operations or disposed via deep well injection. As a standard practice, 100% of water discharge destinations are measured and monitored.
Water discharges-volume by treatment method	76-100	All withdrawn water is released to deep groundwater, either through use in water flood operations or a deep disposal well. Treatment may be required prior to discharge. All treatment methods and volumes of water treated are documented. As a standard practice, 100% of water

Water aspect	% of sites/facilities/operations	Please explain
		volumes and treatment methods are measured and monitored to track treatment efficacy and costs.
Water discharge quality data- quality by standard effluent parameters	76-100	All water discharge quality is analysed to ensure chemical compatibility between discharged water and receiving reservoir. As a standard practice, 100% of water volumes discharged are measured and monitored to ensure quality is within acceptable parameters to avoid adverse effects within injection systems.
Water consumption- total volume	76-100	Detailed water volumetric accounting is a regulatory requirement and this data is crucial for reservoir engineers to understand the fluid dynamics and VRR implications to production. As a standard practice, 100% of water volumes consumed are measured and monitored.
Facilities providing fully-functioning WASH services for all workers	76-100	All Enerplus facilities supply appropriate WASH services. As a standard practice 100% of facilities supplying WASH services are measured and monitored.

#### W1.2a

Water withdrawals: for the reporting year, please provide total water withdrawal data by source, across your operations

Source	Quantity (megaliters/year)	How does total water withdrawals for this source compare to the last reporting year?	Comment
Fresh surface water	1067	About the same	Note, for all W1.2a answers below: <5% change considered about the same; 5 to 10% change considered lower/higher; >20% change considered much lower/higher. Shallow groundwater is frequently hydraulically connected to

Source	Quantity (megaliters/year)	How does total water withdrawals for this source compare to the last reporting year?	Comment
			surface water; therefore shallow non-saline renewable groundwater is included in this field. Withdrawals of this water type increased by 2% in 2015 compared to 2014.
Brackish surface water/seawater	0	Not applicable	This type of water not used in our operations.
Rainwater	0	Not applicable	This type of water not used in our operations.
Groundwater - renewable	0	Not applicable	Enerplus uses extremely low volumes of shallow groundwater. At the few locations where shallow groundwater is used, the groundwater is hydraulically connected to surface water and is measured/monitored/tracked in the fresh surface water category.
Groundwater - non-renewable	509	This is our first year of measurement	This is the first year these volumes were measured separately; in previous years these volumes were combined with produced water.
Produced/process water	19410	About the same	Withdrawals of this water type are unchanged compared to 2014.
Municipal supply	338	Much lower	Withdrawals of this water type decreased by 21% compared to 2014, mostly due to offsetting municipal source with water source well and change in processes related to batching polymer for Enhanced Oil Recovery (EOR) flood.
Wastewater from another organization	36	This is our first year of measurement	This is the first year these volumes were measured separately; water taken from third party and used for EOR water flood.

Source	Quantity (megaliters/year)	How does total water withdrawals for this source compare to the last reporting year?	Comment
Total	21360	About the same	Total water withdrawals increased by 2% compared to 2014.

W1.2b

Water discharges: for the reporting year, please provide total water discharge data by destination, across your operations

Destination	Quantity (megaliters/year)	How does total water discharged to this destination compare to the last reporting year?	Comment
Fresh surface water	0	About the same	No fresh surface water discharge of industrial use water is permitted by regulations. All withdrawn water is released to deep groundwater, either through use in water flood operations or a deep disposal well.
Brackish surface water/seawater	0	Not applicable	No brackish surface water/seawater is withdrawn, used or a discharge destination within operations.
Groundwater	21360	About the same	All withdrawn water is released to deep groundwater, either through use in water flood operations or a deep disposal well. Total water discharges increased by 2% compared to 2014.
Municipal/industrial wastewater treatment plant	0	About the same	No water is discharged to municipal/industrial wastewater treatment plants.

Destination	Quantity (megaliters/year)	How does total water discharged to this destination compare to the last reporting year?	Comment
Wastewater for another organization	0	About the same	No water is discharged to another organization
Total	21360	About the same	Total water discharges increased by 2% in 2015 compared to 2014.

W1.2c

Water consumption: for the reporting year, please provide total water consumption data, across your operations

Consumption (megaliters/year)	How does this consumption figure compare to the last reporting year?	Comment
1405	About the same	Surface water withdrawn is ultimately injected into deeper formations as primary or secondary function of oil and gas extraction. The process of transferring water from surface water to deep groundwater is considered consumptive. Water considered consumed is sum of fresh surface water and municipal water. Total water consumed decreased by 4.8% in 2015 compared to 2014.

W1.3

Do you request your suppliers to report on their water use, risks and/or management?

No

W1.3b

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

Primary reason	Please explain
Assessed risk but no risk found	Supplier water risk was assessed but no substantive risk identified. Individual areas of increased water risk were identified; however these areas were limited in geographic scale to specific river basins and only for specific times of the year. Adequate project planning could mitigate these risks to acceptable levels. Geographically diversified operation reduces the water related risk to acceptable levels that are not likely to cause significant business impacts. Our supply chain is geographically and temporally diversified, any potential water impacts would have limited effect. In event supply chain disruption occurs, alternative supply would be secured, minimizing business impacts. For these reasons the water risk was not considered to be substantive This risk will be assessed again in 2016.

W1.4

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

No

Further Information

Module: Risk Assessment

Page: W2. Procedures and Requirements

W2.1

Does your organization undertake a water-related risk assessment?

Water risks are assessed

W2.2

Please select the options that best describe your procedures with regard to assessing water risks

Risk assessment procedure	Coverage	Scale	Please explain
Comprehensive company-wide risk assessment	Direct operations and supply chain	All facilities and suppliers	A comprehensive risk assessment is completed for all operational areas within the company. This approach has been taken because an in-depth understanding of all potential risks is necessary to quantify the likelihood and severity of the risk, and to develop mitigation strategies to bring the risks within acceptable levels. The risk assessment includes risks to direct operations and potential risk of interruption to supply chain. These risk assessments include water related risk, as access to economically viable water is vital.

W2.3

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

Frequency	Geographic scale	How far into the future are risks considered?	Comment
Annually	River basin	3 to 6 years	Enerplus' Asset teams review project specifics annually to determine ongoing economic viability. The scale of project review ranges from a single well to larger area water flood projects, within the context of river basin specific concerns. Larger water demand projects have correspondingly larger geographic and temporal scales of risk assessment.

W2.4

Have you evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy?

Yes, evaluated over the next 10 years

W2.4a

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

Access to adequate water supply is important to all Enerplus' operational stages including exploration, development and operations. At the initial planning stages of new projects, Enerplus evaluates potential water sources to ensure sufficient, economically viable water supply is available for the planned duration of the project.

For Canadian operations, in 2015 a Water Security Management Plan was completed that included assessing water-related risk for all operational areas.

For US operations, site specific Water Management Plans are completed prior to all developments.

These water-related risk assessments consisted of interviewing all Asset Teams about their water requirements forecast for the short, medium and longer terms. The projected water requirements were compared with water availability forecasts to identify areas of risk.

The assessments included available water quantity/quality, other water user's cumulative effects, local stakeholders' interests, pending and potential regulations and regional climatic trends.

The assessment identified water risk within a water short river basin in southern Alberta. The current model of using fresh surface water for drilling and completions would not be feasible in this area. Deep saline groundwater was identified as an alternative water source. Although the cost of using this type of water is higher, due to required water treatment, the project economics are still viable, leaving the overall growth strategy unchanged.

## W2.5

Please state the methods used to assess water risks

Method	Please explain how these methods are used in your risk assessment
GEMI Local Water Tool Internal company knowledge IPIECA Global Water Tool for Oil & Gas Regional government databases Other: Enerplus Water Source Decision Tool	Internal company knowledge is leveraged with professional water resources consultants input to arrive at risk assessment findings. Regional government databases are accessed to gather water approvals and water use data for other water users in operational areas. Regional water use approvals can be an indicator of overall pressures to water supply sources. The increased pressure on water resource poses a water procurement availability risk. To mitigate this risk, water approvals need to be acquired early in the development process. The operational scope of the risk assessments include 100% of the company as divided into individual operational areas. All facilities are grouped geographically and combined into asset areas based on production type (i.e., water flood, deep gas, shale oil, etc.). Our asset areas are managed by Asset teams of professionals that have long-term organizational knowledge of each facility, including their current and forecast water demand, supply, stress, regulations, stakeholders, etc. Enerplus internally developed a water source decision tool to assess risks when

Method	Please explain how these methods are used in your risk assessment
	comparing source options prior to sourcing water during the project planning process. Net environmental and social effects of each option are compared before final source decisions are made. This decision tool is based on GEMI and IPIECA water tools.

## W2.6

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 to ensure that adequate water supply of chemically compatible water is available. Internal company knowledge of our asset areas is combined with third-party resource consultant information to determine if water demand will be met by local supply. Adequate water supply is fundamental to project feasibility; Asset teams are required to have this knowledge to determine if a project can succeed economically.
Current water regulatory frameworks and tariffs at a local level	Relevant, included	All regulations and tariffs must be known to ensure compliance. Internal company knowledge includes awareness of all relevant regulations that must be complied with in all of our operating areas.
Current stakeholder conflicts concerning water resources at a local level	Relevant, included	Stakeholder concerns regarding water are addressed through the regulatory approval process.
Current implications of water on your key commodities/raw materials	Relevant, included	An adequate supply of economically viable water supply is required for our operations. Internal company knowledge includes detailed forecast of water quality required for each operational stage: exploration, development and production.
Current status of ecosystems and habitats at a local level	Relevant, included	In all of the jurisdictions where we operate, regulatory agencies ensure that ecosystems and habitats are not adversely impacted by our operations. This is done through strict legislation and regulations for the oil

Issues	Choose option	Please explain
		and gas industry. Enerplus complies with all regulations, acquires all relevant approvals required and follows industry best practices for all developments and operations.
Current river basin management plans	Relevant, included	Internal company knowledge includes review of all relevant management plans to ensure compliance with regulations and our operating approval conditions.
Current access to fully-functioning WASH services for all employees	Relevant, included	Access to sufficient potable water and sanitation services are not a concern within the jurisdictions Enerplus operates. All facilities have WASH services in place.
Estimates of future changes in water availability at a local level	Relevant, included	Long-term internal company knowledge of asset areas allows trends in water supply to be incorporated into project planning. If water source risk is expected, alternative water supply types are secured prior to the supply risk causing business impacts.
Estimates of future potential regulatory changes at a local level	Relevant, included	All pending and published regulatory changes are reviewed to determine potential business impacts on operations. Enerplus sits on several industrial associations (e. g. Canadian Association of Petroleum Producers (CAPP), North Dakota Petroleum Council (NDPC), Western Energy Alliance (WEA), Etc.) that routinely provide feedback on pending legislation. Potential regulatory changes are summarized and disseminated internally to heighten internal company knowledge and to aid in providing informed feedback to regulators.
Estimates of future potential stakeholder conflicts at a local level	Relevant, included	Long-term internal company knowledge of asset areas aids in a high level of understanding regarding stakeholder sentiment and potential conflicts. Enerplus proactively builds strong relationships with stakeholders in local communities. In addition, operations employees are active members of the communities in which they live and work.
Estimates of future implications of water on	Relevant, included	Future implications on water are expected to be similar to current. Alternatives to water such as oil for

Issues	Choose option	Please explain
your key commodities/raw materials		<p>completions or CO2 for enhanced oil recovery are compared during project planning and review. Currently, use of water is more economically viable than alternatives. Long-term internal company knowledge allows ongoing comparison of water versus non-water alternatives and economic viability determination.</p>
Estimates of future potential changes in the status of ecosystems and habitats at a local level	Not relevant, explanation provided	<p>Regulators are responsible for monitoring current state and modelling future potential changes. Through compliance with all regulations, and supporting industry funded government monitoring initiatives, the requirement to maintain internal company knowledge of ecosystems and habitats is unnecessary.</p>
Scenario analysis of availability of sufficient quantity and quality of water relevant for your operations at a local level	Relevant, included	<p>Scenario analysis includes estimating the potential business impact of a short-term or long-term disruption to water supply or requirement to implement water treatment due to decrease in water quality. Contingency water supplies and treatment options are analyzed for economic viability. Long-term internal company knowledge includes information regarding how much additional cost-related to water quantity and quality can be incurred while maintaining economic viability of projects.</p>
Scenario analysis of regulatory and/or tariff changes at a local level	Relevant, included	<p>Annual project reviews include analysis of potential changes to regulations and tariffs. Significant changes to these may necessitate the switching to alternative water supply (e.g., using deep saline water instead of fresh surface water). Our project economics include an detailed analysis of alternative water source options.</p>
Scenario analysis of stakeholder conflicts concerning water resources at a local level	Relevant, included	<p>Stakeholder conflicts or concerns with accompanying regulatory interventions could necessitate the switching to alternative water supply (e.g.. using deep saline water instead of fresh surface water). Project economics of implementing alternative water source options is part of our project planning process.</p>

Issues	Choose option	Please explain
Scenario analysis of implications of water on your key commodities/raw materials	Relevant, included	The economics of using alternatives to water are compared during our project planning process and review. Long-term internal company knowledge allows ongoing comparison of water versus non-water alternatives and economic viability determination.
Scenario analysis of potential changes in the status of ecosystems and habitats at a local level	Not relevant, explanation provided	In all operational jurisdictions, applicable regulatory agencies (provincial, state and/or federal) are responsible for protection of ecosystems and habitats and mitigating impacts causing potential changes in the status of ecosystems and habitats at a local level. Enerplus complies with all regulations, acquires all relevant approvals required and follows industry best practices for all developments and operations.
Other		

#### W2.7

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

Stakeholder	Choose option	Please explain
Customers	Not relevant, explanation provided	The customers of Enerplus' produced oil and gas are midstream and/or refining companies. Long-term sales contracts are agreed upon early in project development. In the case of oil and gas production, customers are not relevant to water risk assessment.
Employees	Relevant, included	Environmental stewardship is a company value for which all Enerplus employees are responsible. Relevant employees are interviewed as part of the water risk assessment process. In addition, employees are engaged through our sustainability materiality survey, risk registry analysis and employee engagement surveys.
Investors	Relevant, included	Financial impacts related to water risks are relevant and included. Economic performance can be affected by water risks and reflected in stock prices. Investors are engaged through our corporate website, sustainability materiality survey and Enerplus' published sustainability report.

Stakeholder	Choose option	Please explain
Local communities	Relevant, included	Local communities are included within water risk assessments. Potential impacts to local communities are identified and mitigated. Enerplus proactively builds strong relationships with stakeholders in local communities.
NGOs	Relevant, included	NGOs active in the operational area are included in the water risk assessment. Reputational risk related to NGOs is assessed. Engagement method includes corporate website, sustainability materiality survey and Enerplus' published sustainability report.
Other water users at a local level	Relevant, included	Other water users are included in the water risk assessment. Potential collaboration opportunities are identified and pursued where feasible. Engagement methods include direct dialogue, business agreements, and sustainability materiality surveys.
Regulators	Relevant, included	Regulators are included in water risk assessments. Regulatory compliance and awareness of new/developing regulations are critical factors related to water risk. Engagement methods include conversations, official correspondence, applications/receipt of approvals, and , sustainability materiality surveys.
River basin management authorities	Relevant, included	River basin management authorities are included for water risk assessments if present. Understanding of and compliance with management goals is relevant to water risk. Engagement methods include attending meetings, sustainability materiality surveys, reading relevant published documents.
Statutory special interest groups at a local level	Relevant, included	Statutory special interest groups are included for water risk assessments if present. Potential impacts to these groups are identified and mitigation strategies developed. Engagement methods include discussion with regulators, attending meetings, sustainability materiality surveys and reading relevant published documents.
Suppliers	Relevant, included	Suppliers are included for water risk assessments. Supply of key goods and services is crucial for development and operations. Potential risks of supply disruptions are identified and contingency plans developed. Engagement methods include discussion, service agreements, proposal requests/receipts and sustainability materiality surveys.

Stakeholder	Choose option	Please explain
Water utilities/suppliers at a local level	Relevant, included	Water utilities/suppliers are included for water risk assessments. Water supply is crucial for development and operations. Potential risks of supply disruptions are identified and contingency plans developed. Engagement methods include discussion, service agreements and proposal requests/receipts.
Other		

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?

No

W3.2

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

Substantive change 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.

Metrics used to determine substantive change 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 substantiveness vary by operational area.

Enerplus defines substantive applicable to direct operation only.

W3.2e

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
Risks exist, but no substantive impact anticipated	During annual asset area reviews, water risks (likelihood and potential severity) are assessed using internal company knowledge, conversations with vendors and regulators. 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. For example, fresh surface water from a river is used for one of our EOR water floods; drought conditions forced the curtailment of water withdrawals from the river, but alternative groundwater withdrawals were used to make up the water shortfall. The additional costs incurred due to temporarily switching withdrawal sources were not substantive. During the annual reviews, no risks with potential business impacts greater than the assigned thresholds were identified. Risk assessments are completed annually.

W3.2f

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
Risks exist, but no substantive impact anticipated	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, no potential business impact greater than \$10M likely. Supplier water risk was assessed but no substantive risk was identified. Individual areas of increased water risk were identified; however these areas were limited in geographic scale to specific river basins and only for specific times of the year. Adequate project planning could mitigate these risks to acceptable levels. Geographically diversified operation reduces the water related risk 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.

Further Information

W4.1

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

Yes

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
Company-wide	Improved water efficiency	During our completions, operations large volumes of fresh water are used. Often the water is only used once, as the costs of moving water to the next job location and storing water until needed are greater than cost of disposing water and sourcing new fresh water. Our completions projects are now planned to occur back to back, so that the water can be used at next site without the need to store water. This saves approximately \$30K storage cost per location.	Current-up to 1 year	This strategy is now being implemented for slick water hydraulic fracturing operations. In 2015, this strategy reused 8,500 m3 of flowback water, thus avoiding fresh water being required.

Further Information

Module: Accounting

Page: W5. Facility Level Water Accounting (I)

Further Information

Page: W5. Facility Level Water Accounting (II)

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
Board of individuals/Sub-set of the Board or other committee appointed by the Board	Scheduled-quarterly	The Enerplus Board of Directors Safety and Social Responsibility (S&SR) Committee is established by the Board for development and implementation of an effective S&SR management system, to ensure activities are planned and executed safely and responsibly, and to ensure regulatory compliance, emergency response plans, and stakeholder engagement activities. The S&SR Committee reviews the Corporation's performance related to S&SR quarterly to ensure that long-range preventative programs are in place to limit or mitigate future liability. The S&SR Committee is comprised of at a minimum of three independent Board of Director members which are appointed annually following the annual general meeting of the Corporation. The Enerplus Chief Executive Officer is responsible for Board Liaison. The S&SR Board Committee Chairman presents verbal and/or written reports regarding the Corporation's S&SR performance, Committee meetings and discussions at scheduled meetings of the Board of Directors.

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 product development	Access to adequate water supply is important to all Enerplus' operational stages including exploration, development and operations. At the initial planning stages of new projects Enerplus evaluates potential water sources to ensure that sufficient, economically feasible water supply is available for both immediate development and the overall development areas life cycle. Only areas with economically viable water supply will be developed.

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
Divestment from regions exposed to water risks	Although not the sole deciding factor, the cost of water procurement is one of the criteria used to evaluate potential divestments. Areas with greater water risks translate into higher costs for water procurement. Due to these higher costs, facilities may be divested preferentially compared to areas with no water risk.

W6.3

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

Yes

W6.3a

Please select the content that best describes your water policy (tick all that apply)

Content	Please explain why this content is included
Publicly available Company-wide Performance standards for direct operations Commitment to customer education	A companywide water policy has a dedicated page on our company website. The performance standard of using non-potable water and re-using/recycling water whenever economically viable is stated. Inclusion of the water policy page on the website is intended to educate customers and investors. Water is also included within the Safety and

Content	Please explain why this content is included
Incorporated within group environmental, sustainability or EHS policy Acknowledges the human right to water, sanitation and hygiene Other: water will be re-used or recycled whenever its economically feasible to do so	Social Responsibility Policy that is publically available on the company website.

#### W6.4

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

Water CAPEX (+/- % change)	Water OPEX (+/- % change)	Motivation for these changes
2	2	Overall water withdrawals increased by 2% from 2014 to 2015. Assuming that all input costs remained relatively unchanged, the averaged increase in water CAPEX/OPEX is estimated to be 2%.

Further Information

Page: W7. Compliance

#### W7.1

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

No

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

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: use alternatives to fresh surface water whenever economically viable and technically feasible	Recommended sector best practice	For all water required, alternatives to fresh surface water are sourced provided the alternative sources are economically viable and technically feasible.	For all projects, the economic viability and technical feasibility assessments comparing alternatives to fresh surface water have been completed. In cases where economics allow, fresh water alternatives are used. From 2014 to 2015, total production increased by 3.2%, while percentage of water that was fresh surface water remained constant at 5%.

Further Information

Module: Linkages/Tradeoff

Page: W9. Managing trade-offs between water and other environmental issues

W9.1

Has your organization identified any linkages or trade-offs between water and other environmental issues in its value chain?

Yes

W9.1a

Please describe the linkages or trade-offs and the related management policy or action

Environmental issues	Linkage or trade-off	Policy or action
<p>Consumptive use of fresh water is avoided when economically viable to do so. The net environmental effects of using alternatives to fresh water may cause more impact to the environment than using fresh water would, due to consideration for full lifecycle impacts such as fuel use for sourcing water (trucking), possible land disturbance and health and safety risks, among others.</p>	<p>Trade-off</p>	<p>Avoiding the use of fresh water at all costs does not always benefit the environment. Assessment of all possible water sources, fresh, produced, saline groundwater, recycled, third party, etc., is completed prior to making water source decisions. Enerplus utilizes a water source decision tool to compare source options prior to sourcing water during the project planning process. Net environmental and social effects of each option are compared before final source decisions are made.</p>

Further Information

Module: Sign Off

Page: Sign Off

W10.1

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

W10.2

Please select if your organization would like CDP to transfer your publicly disclosed response strategy from questions W1.4a, W3.2c and W3.2d to the CEO Water Mandate Water Action Hub.

No further information.

