

Module: Introduction

Page: W0. Introduction

W0.1

Introduction

Please give a general description and introduction to your organization.

AECI is a South African-based explosives and specialty chemicals company focused on providing products and services to a broad spectrum of customers in the mining, manufacturing and agricultural sectors. It has regional and international businesses in Africa, South East Asia, the USA and Australia. Other markets of interest are in Latin America. AECI was registered as a company in South Africa in 1924 and has been listed on the JSE since 1966.

The focus is on domestic growth as well as ongoing expansion outside South Africa in the Group's chosen strategic areas of mining solutions, water solutions, agrochemicals and food additives and ingredients. The proactive management of a portfolio of specialty chemicals business is the Group's fifth growth pillar.

Mining Solutions is led by AEL Mining Services ("AEL") and Senmin, Water Solutions by ImproChem and Agrochemicals by Nulandis. Lake Foods and Southern Canned Products ("SCP") constitute the Food Additives and Ingredients pillar.

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 financial 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**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	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	Have not evaluated	AECI's operations are not too water intensive, but water quality and quantity is still important and is considered as part of AECI's strategic objectives. Indirect water use has not yet been evaluated due to a current focus on areas of legislation and related compliance
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Have not evaluated	As AECI's operations are located in water scarce areas, water availability may be constrained in future. Therefore AECI has rolled out its Green Gauge Programme of which water conservation (recycling, re-use etc.) is a key component. Future water pricing will significantly impact on operational costs, therefore opportunities for reuse are being investigated and initiatives are being implemented. Manufacturing companies in the Group have set targets to reduce their water consumption against a 2011 baseline up to 2015. Indirect water use has not yet been evaluated due to a current focus on areas of legislation and related compliance.

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	All sites - Regularly measured and monitored and reported monthly to AECI
Water withdrawals- volume by sources	76-100	All sites - Regularly measured and monitored by source (e.g. abstracted from river or municipality) and reported monthly to AECI
Water discharges- total volumes	76-100	All sites - Regularly measured and monitored and reported monthly to AECI (total effluent in m3)
Water discharges- volume by destination	Less than 1%	Total effluent is reported to AECI, not split up by destination
Water discharges- volume by treatment method	Less than 1%	Reporting to Group is not currently done as it is not seen as a material risk, however the facilities measure this internally where applicable.
Water discharge quality data-quality by standard effluent parameters	76-100	Reported regularly in terms of permit requirements
Water consumption- total volume	76-100	Reported and measured regularly (same as total withdrawals)
Facilities providing fully-functioning WASH services for all workers	Less than 1%	This is not reported separately to the Group as it is not seen as a material risk and is not significant compared to the total water consumption.

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	334.48	Lower	About 10% decrease affected by reduced usage at the Modderfontein Explosives facility due to reduced output.
Brackish surface water/seawater	2.52	Higher	Used by the Specialty Chemical sector.
Rainwater	0.00	Not applicable	
Groundwater - renewable	45.34	Higher	Increased usage by the Modderfontein Explosives facility
Groundwater - non-renewable	0.00	Not applicable	
Produced/process water	3.38	Much higher	Increase due to use of process water by one of the Specialty Chemicals facilities
Municipal supply	2596.45	Higher	4.5% higher than 2014 due to the acquisition of the Clariant business in late 2014.
Wastewater from another organization	446.32	Higher	Increased usage by one of the Specialty Chemicals facilities of waste water instead of potable water.
Total	3427.53	Higher	3.4% higher than 2014 mostly due to the acquisition of the Clariant business in late 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		Not applicable	not currently reported
Brackish surface water/seawater		Not applicable	not currently reported to Group but internally measured and reported at facilities where relevant.
Groundwater	0.00	Not applicable	There is no discharge to groundwater.
Municipal/industrial wastewater treatment plant		Not applicable	not currently reported
Wastewater for another organization	0.00	Not applicable	This is not applicable - there are no facilities that provide waste water to another company.
Total	2639.54	Lower	Decreased discharge due to increase use of process water, increased use of waste water from another organisation and reduced product output.

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
3426.73	Higher	3.4% higher than 2014 mostly due to the acquisition of the Clariant business in late 2014.

W1.3

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

W1.3a

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

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

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
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W1.4

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

Yes

W1.4a

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

Country	River basin	Impact indicator	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
South Africa	Limpopo (WMA)	Reg-Regulation of discharge quality/volumes leading to higher compliance costs	Higher operating costs	AEL withdraws water from a natural water resource and also discharges effluent into the natural water resource. The most critical aspect related to this water use is the Water Use License (WUL) that has been issued by the Department of Water and Sanitation. The WUL specifies very	Short term	Approximately R1.8m has been spent during 2015 on upgrading the effluent line, replacement of a sewerage line, rerouting one of the effluent lines to sewer, storm water drain rehabilitation.	Increased capital expenditure	Since 2012 AEL has spent a significant amount on source reduction projects, external monitoring plumes, pre-treatment, diversion of effluent, clean & dirty water separation, upgrading the liming station. In order to ensure compliance to the WUL, a specific compliance management project database has been

Country	River basin	Impact indicator	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
				stringent compliance conditions in terms of discharge of effluent impacting on surface and groundwater which will require capital intensive projects to be implemented in order to ensure compliance.				developed. Key priority projects have been identified in terms of the potential to facilitate compliance to the conditions of the WUL. The status of the implementation of the projects is monitored on a monthly basis by the AECI EXCO. Ongoing discussions also take place with the Department of Water and Sanitation to ensure that initiatives for achievement of compliance are

Country	River basin	Impact indicator	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
								acceptable to the Department.
South Africa	Other: All areas in South Africa	Reg-Higher water prices	Plant/production disruption leading to reduced output	If water is priced significantly higher than it currently is, many of AECI's water intensive products will not be able to be produced and therefore there will be a decrease in product availability and a subsequent loss of revenue.	Not estimated	Not estimated	Cost increase management through regulated tariff-setting process Engagement with public policy makers	Engaging with local authorities on water pricing; and investigate alternative sources of water conservation measures (Green Gauge).

W1.4b

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 year and any plans you have to investigate this in the future

Primary reason	Future plans
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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	All facilities	The Group follows the risk management methodology comprising both bottom-up and top-down elements as well as a holistic approach in identifying, analysing, evaluating, treating, monitoring and reviewing risks. The bottom-up identification and prioritisation process is supported by workshops with the management teams of the Group's businesses. The top-down element involves management at Corporate Head Office level. This ensures that potential risks are discussed at the top management level and are included in subsequent reports, if found to be relevant. Through this process, complemented by with the Cura software, AECI ensures that the management of risks is an integral part of its corporate governance system and that risk management is integrated into its day-to-day business activities.

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
Six-monthly or more frequently	Business unit	3 to 6 years	

W2.4

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

Not evaluated

W2.4a

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

W2.4b

What is the main reason for not having evaluated how water risks 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
Important but not any immediate business priority	Yes	Next 24-36 months	

W2.5

Please state the methods used to assess water risks

Method	Please explain how these methods are used in your risk assessment
Other: Internal company knowledge	The Group follows the risk management methodology comprising both bottom-up and top-down elements as well as a holistic approach in identifying, analysing, evaluating, treating, monitoring and reviewing risks. The bottom-up identification and prioritisation process is supported by workshops with the management teams of the Group's businesses. The top-down element involves management at Corporate Head Office level. This ensures that potential risks are discussed at the top management level and are included in subsequent reports, if found to be relevant. Through this process, complemented by with the Cura software, AECI ensures that the management of risks is an integral part of its corporate governance system and that risk management is integrated into its day-to-day business activities.

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	This applies to the Explosives business especially in Zambia and Modderfontein.
Current water regulatory frameworks and tariffs at a local level	Relevant, included	AEL Modderfontein: stringent requirements by Department of Water and Sanitation on water quality (groundwater and surface water)
Current stakeholder conflicts concerning water resources at a local level	Relevant, included	Modderfontein: property development around factory
Current implications of water on your key commodities/raw materials	Relevant, not yet included	This is important but not an immediate or material business priority.
Current status of ecosystems and habitats at a local level	Not relevant, explanation provided	No significant issues, this is managed by the operations
Current river basin management plans	Not relevant, explanation provided	This is not a material business issue and is managed at a facility level where applicable.
Current access to fully-functioning WASH services for all employees	Not relevant, explanation provided	Not significant for AECI
Estimates of future changes in water availability at a local level	Not relevant, explanation provided	This has not been highlighted as a material business issue.

Issues	Choose option	Please explain
Estimates of future potential regulatory changes at a local level	Not relevant, explanation provided	Modderfontein: the worst case has already been presented in the water use license.
Estimates of future potential stakeholder conflicts at a local level	Not relevant, explanation provided	This is not a material business issue.
Estimates of future implications of water on your key commodities/raw materials	Not relevant, explanation provided	This is not a material business issue.
Estimates of future potential changes in the status of ecosystems and habitats at a local level	Not relevant, explanation provided	This is not a material business issue and is assessed at a facility level where applicable.
Scenario analysis of availability of sufficient quantity and quality of water relevant for your operations at a local level	Not relevant, explanation provided	This is not a material business issue.
Scenario analysis of regulatory and/or tariff changes at a local level	Not relevant, explanation provided	This is not a material business issue.
Scenario analysis of stakeholder conflicts concerning water resources at a local level	Not relevant, explanation provided	This is not a material business issue.
Scenario analysis of implications of water on your key commodities/raw materials	Not relevant, explanation provided	This is not a material business issue.
Scenario analysis of potential changes in the status of ecosystems and habitats at a local level	Not relevant, explanation provided	This is not a material business issue.
Other		

W2.7

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

Stakeholder	Choose option	Please explain
Customers	Relevant, not yet included	Customers are not yet factored into the risk assessments as water risks in the value chain are not an immediate business priority.
Employees	Not relevant, explanation provided	Employees are not seen as relevant stakeholders as the material water issues in the business which are regulatory-related, are not associated with employees for example meeting the Water Use Licence requirements.
Investors	Not evaluated	
Local communities	Relevant, included	Where there are material water issues, local communities are incorporated for example local communities attend the CAER committee meetings where material water issues are discussed.
NGOs	Not relevant, explanation provided	There are no NGOs linked to the material water issues identified.
Other water users at a local level	Not relevant, explanation provided	There are no water users linked to the material water issues identified.
Regulators	Relevant, included	Department of Water and Sanitation are regularly engaged in terms of the material issue of compliance with the Water Use Licence.
River basin management authorities	Relevant, included	Department of Water and Sanitation are regularly engaged in terms of the material issue of compliance with the Water Use Licence.

Stakeholder	Choose option	Please explain
Statutory special interest groups at a local level	Not relevant, explanation provided	These do not exist
Suppliers	Relevant, not yet included	Suppliers are not yet factored into the risk assessments as water risks in the value chain are not an immediate business priority.
Water utilities/suppliers at a local level	Not relevant, explanation provided	There are no material water issues that are linked with water utilities at a local level.
Other		

W2.8

Please choose the option that best explains why your organisation does not undertake a water-related risk assessment

Primary reason	Please explain

Further Information

Module: Implications

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?

Yes, direct operations and supply chain

W3.2

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

AECI uses a consequence scale to rate risks. The ratings are Minor, Moderate, Serious, and Major. Substantive change in the business' operations, revenue or expenditure from water risk can therefore be aligned with the serious and major ratings per the consequence scales:

Serious rating: Measurable environmental harm – medium term recovery. High potential for complaints from stakeholders and community. This represents > R 20-50 million loss or gain

Major rating: Prolonged environmental impact. High-profile community concerns raised – requiring significant rectification measures. Government agency inquiry. This represents > R50 – R120 million (Loss or gain)

The above ratings apply to direct operations at this stage and are reviewed on an ad-hoc basis.

W3.2a

Please provide the number of facilities* per river basin exposed to water risks that could generate a substantive change in your business, operations, revenue or expenditure and the proportion this represents of total operations company-wide

Country	River basin	Number of facilities exposed to water risk	Proportion of total operations (%)	Comment
South Africa	Limpopo (WMA)	1	Less than 1%	The explosives business is the most significant consumer of water within the business but is not a significantly water intensive business. The most significant risk would be related to water quality specifically in terms of the stringent water use license conditions imposed on the Explosives business by the Department of Water and Sanitation.

W3.2b

Please provide the proportion of financial value that could be affected at river basin level associated with the facilities listed in W3.2a

Country	River basin	Financial reporting metric	Proportion of chosen metric that could be affected within the river basin	Comment
South Africa	Limpopo (WMA)	% global revenue	Less than 1%	This has not been flagged as a significant risk as there are currently discussions with the Department of Water and Sanitation to review the Water Use License and there have been no fines or penalties imposed on the business.

W3.2c

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
South Africa	Limpopo (WMA)	Regulatory-Regulation of discharge quality/volumes leading to higher compliance costs	Higher operating costs	AEL discharges effluent into the natural water resource. The most critical aspect related to this water use is the Water Use License (WUL) that has been issued by the Department of Water and Sanitation. The WUL	>6 years	Probable	Medium	Increased capital expenditure	Total amount spent during 2015 was R5.2m	1. Negotiate relevancy of some of the effluent discharge quality and groundwater quality parameters and target levels with Department of Water and Sanitation. 2. Various Water Use License related projects have been approved to date such as Cooling

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
				specifies very stringent compliance conditions which will require capital intensive projects to be implemented in order to ensure compliance .						tower purge water treatment plant, Diversion of effluent to strong effluent system, sewer outfall for W5A and S12 effluents, etc. The total amount spent on projects during 2015 was approximately R1.8m.

W3.2d

Please list the inherent water 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
South Africa	SOUTH AFRICAN WATER MANAGEMENT AREAS (WMAs)	Physical - Increased water stress	Higher operating costs	The major effect of pressure on water availability is on AECI's integrated water balance which helps in determining the quantity of water available	4-6 years	Probable	Low-medium	Establish site-specific targets	Green gauge programme - water initiatives were implemented at manufacturing (small, medium and large facilities) to reduce water consumption. For	AECI is currently looking at ways to decrease dependency on water supplied from other sources. Through AECI's Green Gauge programme, water has been

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
				for planning and operations. In the northern regions of SA, the dry winter rainfall region is expected to become drier. If water becomes scarcer, this may lead to an increase in operational costs as more supply will					example, the Speciality Minerals facility switched from using municipal potable water to using recycled water from another organisation resulting in reduced cost.	identified as a potential climate risk that AECI will need to address going forward. Water Conservation and Demand Management assessments have been conducted at 15 prioritised sites in order to quantify

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
				be required from municipality.						and understand the business risks related to water. The assessments have allowed the sites to identify potential areas of saving, reuse and recycling in order to reduce water demand and enhance water

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
										<p>conservation. Specific targets for reduced consumption have been set at the 15 sites assessed. It is anticipated that the assessments and targets will aid in enhanced water management and monitoring on AECI sites. AECI</p>

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
										has spent more than R4m on initiatives relating to Green Gauge.

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
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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
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W3.2g

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
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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?

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
South Africa	Improved water efficiency	Green Gauge programme - recycling and reuse opportunities identified and implemented after conducting water assessments at 15 manufacturing facilities. Opportunities were identified during 2011 and feasible initiatives were implemented thereafter. The cost of conducting assessments was in excess of R1million.	1-3 years	Operations where there is significant consumption have implemented initiatives to reduce fresh/potable water consumed. For example one of our Specialty Chemicals facilities uses the waste water from an external company in its process avoiding the need to use potable water.
South Africa	Sales of new products/services	The rising costs, tighter regulations and concerns about adequate availability in many regions, is prompting many companies to view water conservation as an imperative. AECI believe that this is an immediate	1-3 years	The potentially increased demand for water treatment technologies and chemicals is likely to increase the demand for the services offered by AECI businesses in particular

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Please explain
		opportunity especially as the regions we operate in are considered water scarce areas. AECI has identified that based on lack of availability of water, water treatment is an attractive option for activities which use water as a raw material and generate significant quantities of effluent.		ImproChem. This increased demand will likely result in financial benefits for the Group.

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
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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
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Further Information

Module: Accounting

Page: W5. Facility Level Water Accounting (I)

W5.1

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

Facility reference 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 year?	Please explain
Facility 1	South Africa	Limpopo	AEL Modderfontein	1853.58	About the same	The total water withdrawal did not change significantly from 2014 to 2015

Further Information

Page: W5. Facility Level Water Accounting (II)

W5.1a

Water withdrawals: for the reporting year, please provide withdrawal data, in megaliters per year, for the water sources used for all facilities reported in W5.1

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
Facility 1	162.83	0.00	0.00	45.34	0.00	0.00	1645.40	0.00	

W5.2

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

Facility reference number	Total water discharged (megaliters/year) at this facility	How does the total water discharged at this facility compare to the last reporting year?	Please explain
Facility 1	2639.05	Much lower	16% lower discharge from previous year due to increased recycling of effluent to a sister company.

W5.2a

Water discharge: for the reporting year, please provide water discharge data, in megaliters per year, by destination for all facilities reported in W5.2

Facility reference number	Fresh surface water	Municipal/industrial wastewater treatment plant	Seawater	Groundwater	Wastewater for another organization	Comment
Facility 1	460.45	294.34	0	0	0	

W5.3

Water consumption: for the reporting year, please provide water consumption data for all facilities reported in W3.2a

Facility reference number	Consumption (megaliters/year)	How does this compare to the last reporting year?	Please explain
Facility 1	1853.58	About the same	The total consumption did not change significantly from the prior year due to their being no significant changes at those operations that consume significant volumes of water.

W5.4

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

Water aspect	% verification	What standard and methodology was used?
Water withdrawals- total volumes	76-100	ISAE 3000 audit standard was used
Water withdrawals- volume by sources	Not verified	Water withdrawals by sources was not considered as a material risk, so therefore was not audited.
Water discharges- total volumes	Not verified	Water discharges – total volumes was not considered as a material risk, so therefore was not audited.
Water discharges- volume by destination	Not verified	Water discharges – volume by destination was not considered as a material risk, so therefore was not audited.
Water discharges- volume by treatment method	Not verified	Water discharges – volume by treatment was not considered as a material risk, so therefore was not audited.
Water discharge quality data- quality by standard effluent parameters	51-75	The water discharge quality data relating to discharge into surface water is reported to the Department of Water and Sanitation. This report is subject to internal and external audits.
Water consumption- total volume	76-100	This is the same as water withdrawals – total volumes. ISAE 3000 audit standard was used.

Further Information

Module: Response

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	Sporadic-as important matters arise	The Social & Ethics committee considers water amongst others aspects relating to safety, health and environment specifically in relation to the impacts of the AECI Group's activities and those of its products and services.

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
Tighter operational performance standards	During 2011 and 2012 AECI embarked on an extensive environmental targeting process called Green Gauge which essentially focused on resource efficient assessments related to water and energy. The water related component of these assessments focused on water conservation and demand management in order to ensure that the Group addresses the management of water in a consistent and integrated manner. Targets for water consumption were set by the sites (absolute and specific) and management measured themselves on a quarterly basis against these targets. Initiatives were implemented to reduce consumption.

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
Increased capital expenditure	One of AECI's subsidiaries discharges effluent into a natural water resource. The most critical aspect related to this water use is the Water Use License (WUL) that has been issued by the Department of Water and Sanitation. The WUL specifies very stringent compliance conditions which will require capital intensive projects to be implemented in order to ensure compliance.

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

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
Incorporated within group environmental, sustainability or EHS policy	AECI has a Group wide Safety, Health and Environmental policy of which water is a component.

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
17	12	CAPEX was significantly higher in 2015 due to commencement of the following Water Use Licence Projects: 1. Founders Hill Effluent Line 2. Sewerage line replacement 3. Rerouting effluent to sewer 4. Storm water drain rehabilitation

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

W7.1a

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

Facility name	Incident	Incident description	Frequency of occurrence in reporting year	Financial impact	Currency	Incident resolution
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W7.1b

What proportion of your total facilities/operations are associated with the incidents listed in W7.1a

W7.1c

Please indicate the total financial impacts of all incidents reported in W7.1a as a proportion of total operating expenditure (OPEX) for the reporting year. Please also provide a comparison of this proportion compared to the previous reporting year

Impact as % of OPEX	Comparison to last year
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Further Information

W8.1

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

Yes, targets and goals

W8.1a

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	Motivation	Description of target	Quantitative unit of measurement	Base-line year	Target year	Proportion of target achieved, % value
Reduction in consumptive volumes	Risk mitigation	AECI has set an interim target for 2015 based on the resource efficiency assessments which were conducted at 15 prioritised sites. The interim target is to reduce water consumption by 14% across the Group based on the 2011 baseline.	% reduction per business unit	2011	2015	100%

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
Sustainable agriculture	Sales of new products/services	There is a company-wide focus on Green products particularly in the agriculture sector. AECI aims to identify innovative products that can for example enable plants to withstand drought conditions.	One of AECI's divisions, Nulandis, acquired Biocult, a South African company during 2015. Biocult is the leading producer of Micorrhizae which enables plants to withstand the effects of drought, fight disease and yield more.

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: 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?

No

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
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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
Mark Dytor	Chief Executive	Chief Executive Officer (CEO)

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

CDP 2016 Water 2016 Information Request