

**Module: Introduction**

**Page: W0. Introduction**

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**W0.1**

**Introduction**

Please give a general description and introduction to your organization.

AECI IS AN EXPLOSIVES AND SPECIALTY CHEMICALS GROUP DOMICILED IN SOUTH AFRICA AND LISTED ON THE JOHANNESBURG STOCK EXCHANGE (JSE). GROUP BUSINESSES SERVICE THE MINING AND MANUFACTURING SECTORS BOTH LOCALLY AND INTERNATIONALLY.

THE FOCUS FOR GROWTH IS ON AFRICA, SOUTH EAST ASIA AND SOUTH AMERICA. AECI'S BUSINESSES ARE CHARACTERISED BY APPLICATION KNOW-HOW AND SERVICE DELIVERY.

THEY OFTEN OPERATE IN NICHE MARKETS AND ARE SUPPORTED BY LEADING TECHNOLOGIES WHICH ARE DEVELOPED IN-HOUSE OR ARE SOURCED FROM INTERNATIONAL PARTNERS.

AECI's vision is to be the supplier of choice for customers in its chosen markets. The Group aims to be Africa's leading supplier of explosives and mining services and specialty chemicals, mainly to the mining and manufacturing sectors and in key emerging markets around the world.

The Company's vision is underpinned by four strategic pillars pertaining to a globally competitive cost base, world-class technology, value-adding customer-centric service, and excellence and professionalism in all areas of activity. Growth is achieved organically and via acquisitions. These pillars in turn reflect AECI's foundational principles of being Bold and Innovative in the creation of value, of Going Green and of being Engaged and Responsible.

The model in place for AECI is summarised as "Freedom supported by a Framework", with the framework established by the parent company complementing the businesses' pursuit of their own innovative product and service excellence.

Regional expansion will leverage the Group's already extensive footprint in Africa and other selected markets in developing countries will also be targeted for growth. South East Asia and Brazil are of particular interest.

AEL will commission three new plants in Africa in 2013. In addition, the investment in a nitric acid plant and an ammonium nitrate solution plant in Bontang, Indonesia, will provide in-country access to a secure source of ammonium nitrate. This will assist in sustaining AEL's growth trend in the region.

In the specialty chemicals cluster, regional growth is being pursued in Africa in key markets that include mining; the water oil, gas and energy sector; agriculture; food production and preservation; and the personal and home care sectors.

Businesses will expand their areas of influence by partnering with their customers as they grow and by maximising the benefits of leading technology. In this regard ImproChem's position subsequent to the acquisition of General Electric's ("GE") Chemical and Monitoring Solutions business in Africa was a noteworthy development in 2012.

Potential acquisitions in Brazil are being identified and they will be pursued in line with the Group's risk/reward appetite, as will opportunities in other geographies.

AEL is the leading developer, producer and supplier of commercial explosives, initiating systems and blasting services for the mining, quarrying and construction markets in Africa. In Indonesia, the company is the second largest supplier of explosives and services to the local mining industry. With its Head Office at Modderfontein in Johannesburg, South Africa, AEL has production facilities and offices throughout Africa and in selected international regions in South East Asia, South America and Europe.

In the specialty chemicals cluster, 15 business units supply specialty chemical raw materials and related services for industrial use across a broad spectrum of customers in the manufacturing and mining sectors, mainly in Southern Africa. Sales, distribution, production and laboratory facilities are extensive. The cluster has major sites in Johannesburg and Durban, with a number of smaller operations country-wide. AECI's mining chemicals thrust is anchored in Senmin, which operates in Sasolburg.

SANS Technical Fibers is based in USA. It manufactures and markets a range of high performance, specialty nylon industrial yarns for niche market applications in the USA, Asia and Europe. Previously a stand-alone segment, this business was included in the specialty chemicals cluster from January 2013.

In addition to its core businesses the Group has a valuable land asset, the release of which is managed carefully. The property activities are overseen by Heartland. This company seeks to optimise the value of the property holdings surplus to AECI's operational requirements by selling land and by selectively investing in revenue-producing buildings in order to grow an existing portfolio of rental properties.

The land holdings are significant and are located in prime locations near Johannesburg and Cape Town. More than 3 000 hectares of land are available for redevelopment or sale over the longer term for residential, commercial and industrial end uses and for leasing purposes.

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## 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

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**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

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**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

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**W0.4a**

**List of Exclusions**

Please report the exclusions in the following table

Exclusion	Please explain why you have made the exclusion
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**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	Many of AECI's operations are water intensive, therefore it is imperative that water quality and quantity is considered as part of AECI's strategic objectives.
Direct use: sufficient amounts of recycled, brackish and/or produced water available for use across your own operations	Important	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 is being investigated.
Indirect use: sufficient amounts of good quality freshwater available for use across your value chain	Have not evaluated	Although AECI has engaged in an extensive water use, conservation and demand management assessment, this process has largely focused on obtaining a better understanding of the AECI operations. It is essential that the company focuses on understanding its own risk and required mitigation measures. Once these have been comprehensively addressed, it will more logically feasible to address value chain risk exposures.
Indirect use: sufficient amounts of recycled, brackish and/or produced water available for use across your value chain	Have not evaluated	Although AECI has engaged in an extensive water use, conservation and demand management assessment, this process has largely focused on obtaining a better understanding of the AECI operations. It is essential that the company focuses on understanding its own risk and required mitigation measures. Once these have been comprehensively addressed, it will more logically feasible to address value chain

Water quality and quantity	Importance rating	Please explain
		risk exposures.

**W1.2**

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

Yes, evaluated over the next 5 years

**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?**

The AECI/AEL growth strategy is to move outside of South Africa into predominantly the rest of Africa and to focus on less water intensive products in these countries.

**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

W1.3

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

Yes

W1.3a

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
South Africa	Limpopo	Regulatory-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 Affairs. The WUL specifies very stringent compliance conditions which will require capital intensive projects to be implemented in order to ensure compliance.	Since 2012 AEL has spent approximately R17m on source reduction projects, external monitoring plumes, pre treatment, diversion of effluent, clean & dirty water separation, upgrading the liming station.	Increased capital expenditure	In order to ensure compliance to the WUL, a specific compliance management project database has been 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 Affairs to ensure that initiatives for achievement of compliance are acceptable to the Department.
South	Olifants	Physical-Declining	Property	Poor water quality results in	Additional water	Increased	Increased cost to replace

Country	River basin	Impact indicator	Impact	Description of impact	Overall financial impact	Response strategy	Description of response strategy
Africa		water quality	damage	corrosion of equipment at AEL's operations in the eMahlaleni.	storage tanks had to be installed and all metal equipment has been replaced with PVC. The financial cost is not available.	capital expenditure	equipment and install storage tanks.

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
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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 is integrated into a comprehensive, company-wide risk assessment process incorporating direct operations only

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### W2.1a

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

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.

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### 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
Six monthly or more frequently	Business unit	1 to 3 years

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### W2.3

**Please state the methods used to assess water risks**

Method
Internal company knowledge

#### 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 for some facilities/suppliers	
Current water regulatory frameworks and tariffs at a local level	Relevant, included	
Current stakeholder conflicts concerning water resources at a local level	Relevant, included for some facilities/suppliers	
Current implications of water on your key commodities/raw materials	Relevant, not yet included	
Current status of ecosystems and habitats at a local level	Relevant, included for some facilities/suppliers	This has been considered for AEL operations at Modderfontein
Estimates of future changes in water availability at a local level	Relevant, included for some facilities/suppliers	Considered in terms of increased development in the Modderfontein footprint.
Estimates of future potential regulatory changes at a local level	Relevant, not yet included	
Estimates of future potential stakeholder conflicts at a local level	Relevant, included for some facilities/suppliers	Considered in terms of sale agreements of property sales; e.g Sale of portions of land to the Zendai Group considered the Water Use Licence and future significant use of water resources that could impact on AEL operations.
Estimates of future implications of water on your key commodities/raw materials	Relevant, not yet included	
Estimates of future potential changes in the status of ecosystems and habitats at a local level	Relevant, included for some facilities/suppliers	Additional stormwater from future developments impacting on the water course

Issues	Choose option	Please explain
Scenario analysis of availability of sufficient quantity and quality of water relevant for your operations at a local level	Relevant, not yet included	
Scenario analysis of regulatory and/or tariff changes at a local level	Relevant, included for some facilities/suppliers	Future water pricing has been looked at from an operational sustainability perspective for the Modderfontein factory area
Scenario analysis of stakeholder conflicts concerning water resources at a local level	Relevant, not yet included	How is this different to previous questions
Scenario analysis of implications of water on your key commodities/raw materials	Relevant, not yet included	How is this different to previous questions
Scenario analysis of potential changes in the status of ecosystems and habitats at a local level	Relevant, included for some facilities/suppliers	How is this different to previous questions
Other		

#### W2.4a

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	
Employees	Relevant, not yet included	
Investors	Relevant, not yet included	
Local communities	Relevant, included	This due to the communities that surround our operations and are impacted by water discharge from the operations
NGOs	Relevant, included	Local community forums
Other water users at a local level	Relevant, included for some facilities/suppliers	Future developers around operations
Regulators at a local level	Relevant, included	
Statutory special interest groups at a	Not evaluated	Don't know who this refers to

Stakeholder	Choose option	Please explain
local level		
Suppliers	Relevant, not yet included	
Water utilities/suppliers at a local level	Relevant, included	This forms part of regulators (local authorities)
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:	Although AECI has engaged in an extensive water use, conservation and demand management assessment, this process has largely focused on obtaining a better understanding of the AECI operations. It is essential that the company focuses on understanding its own risk and required mitigation measures. Once these have been comprehensively addressed, it will make more sense to address supply chain risk exposures.

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**Further Information**

**Module: Implications**

**Page: W3. Water Risks**

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**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 only

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**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)

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**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
South Africa	Limpopo	1	% cost of goods sold	1-5
South Africa	Olifants	1	% cost of goods sold	Less than 1%

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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
South Africa	Other:	Regulatory-Higher water prices	Higher operating costs	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.	1-3 years	Probable	High	Increased capital expenditure	Medium	Engaging with local authorities on water pricing Investigating alternative sources Water conservation measures (Green Gauge).
South Africa	Other:	Physical-Increased water stress	Other:	The major effect of pressure on water availability is on AECI's integrated water balance which helps in determining the quantity of water available for planning and operations. In the northern regions of SA, the dry winter rainfall region is expected to become drier. If	4-6 years	Highly probable	Medium-high	Establish site-specific targets	Low-medium	AECI is currently looking at ways to decrease dependency on water supplied from other sources. Through AECI's Green Gauge programme, water has been identified as a potential climate risk that AECI will need to address going forward. Water Conservation and

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
				water becomes scarcer, this may lead to an increase in operational costs as more supply will be required from municipality. AECI uses 4.87 bn litres of water/yr. If water shortages increase, the cost is likely to rise by 20-30%.						Demand Management assessments have been conducted at 15 prioritised sites in order to quantify and understand the business risks related to water. The assessments have allowed the sites to identify potential areas of saving, re-use and recycling in order to reduce water demand and enhance water 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.
South Africa	Olifants	Physical-Declining water quality	Higher operating costs	For operations where a Water Use License is	1-3 years	Highly probable	Medium-high	Engagement with suppliers	Low-medium	AECI has implemented effective 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
				required and/or has been issued, an Integrated Water and Waste Management Plan has been developed and is being used to monitor and manage water quality related aspects. The greatest impact is related to the deteriorating quality of incoming water due to upstream impacts which are outside the control of the company.						monitoring networks in areas where water quality is a matter of concern. Specific measures are being taken to measure the quality of water in upstream water courses. The information is shared with the Department of Water Affairs in order to ensure that upstream impacts are addressed in regulatory requirements relevant to AECI operations. Water quality impacts from AECI operations have been addressed as part of the water assessments which have been conducted on specific sites with the main aim of reducing effluent

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
										generation, separating of storm water from effluent channels and re-using and recycling of process water where technically feasible.
South Africa	Other:	Reputational-Negative media coverage	Brand damage	Many AECI operations are located close to communities and it is therefore essential that beneficial relationships with the surrounding stakeholders are maintained. In the event of a significant environmental incident, AECI would suffer great reputational damage.	Current-up to 1 year	Unlikely	Medium-high	Comply with local legal requirements or company own internal standards, whichever is more stringent	Medium-high	AECI is committed to maintain ongoing efforts to minimize operational impacts on the environment in order to continue to be accepted as a responsible citizen by the communities in which we operate and other stakeholders. Recognising this, AECI aims to ensure that business activities within the Group are conducted in a sustainable manner. This environmental vision is based on

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
										three critical environmental footprint reduction goals; namely, resource conservation, energy conservation and pollution prevention. This vision and the associated goals are the pivotal drivers for our climate change strategy.
South Africa	Limpopo	Regulatory-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 Affairs. The WUL	4-6 years	Highly probable	High	Other:	High	In order to ensure compliance to the WUL that has been issued to AECI, a specific compliance management project database has been developed. Key priority projects have been identified in terms of the potential to facilitate compliance to the conditions of the WUL. The status

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.						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 Affairs to ensure that initiatives for achievement of compliance are acceptable to the Department.

W3.2c

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
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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
Other:	Although AECl has engaged in an extensive water use, conservation and demand management assessment, this process has largely focused on obtaining a better understanding of the AECl operations. It is essential that the company focuses on understanding its own risk and required mitigation measures. Once these have been comprehensively addressed, it will make more sense to address supply chain risk exposures.

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W3.2f

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	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 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.	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 ImproChem. This increased demand will likely result in financial benefits for the Group.

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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
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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. Water Accounting (I)**

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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	3637288
Total volume of water discharged	2653568
Total volume of water consumed	4175709
Total volume of recycled water used	478852

## 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	76-100	Water withdrawals are from a water resources or municipality which is metered
Water withdrawals- volume by sources	76-100	Water withdrawals are from a water resources or municipality which is metered
Water discharges- total volumes	76-100	Effluent is discharged into a river or municipal sewerage system which is in most cases metered.
Water discharges- volume by destination	76-100	Effluent is discharged into a river or municipal sewerage system which is in most cases metered.
Water discharges- volume by treatment method	76-100	Effluent is discharged into the operations own effluent treatment plant or municipal sewerage treatment plant system.
Water discharge quality data- quality by standard effluent parameters	76-100	Most of our operations monitor their effluent quality data as most discharge into the municipal system
Water consumption- total volume	76-100	Water consumption is metered by most of the operations
Water recycling/reuse-total volume	1-25	AECI's Property business and business units within the Specialty Chemicals business use recycled water

**W5.3**

**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 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
Facility 1	South Africa	Limpopo	Modderfontein	1679	Lower	Due to reduction in Nitric Acid plant in 2012. Major work on the cooling towers done. Reduction in production in Dets campus in 2013
Facility 2	South Africa	Olifants	Emahlaleni	7	This is our first year of estimation	

**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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Facility reference number	Surface water	Groundwater (renewable)	Groundwater (non-renewable)	Municipal water	Recycled water	Produced/process water	Wastewater	Brackish/salt water
Facility 1	101	0	0	1578	0	0	0	0
Facility 2	0	0	0	7	0	0	0	0

#### 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	How does the total water discharged at this facility compare to the last reporting period?	Please explain the change if substantive
Facility 1	2456	About the same	No significant change
Facility 2			Not measured yet

#### W5.4a

Water discharge: for the reporting period, please provide water discharge data, in megaliters per year, by destination for all facilities reported in W5.3

Facility reference number	Surface water	Municipal Treatment Plant	Saltwater	Injection for production/disposal	Aquifer recharge	Storage/waste lagoon
Facility 1	2257	199				

Facility reference number	Surface water	Municipal Treatment Plant	Saltwater	Injection for production/disposal	Aquifer recharge	Storage/waste lagoon
Facility 2						

#### W5.5

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

Facility reference number	Consumption (megaliters/year)	How does this compare to the last reporting period?	Please explain the change if substantive
Facility 1	1679	Lower	Reduction in production from Dets in 2013, maintenance in 2012
Facility 2	7	This is our first year of estimation	

#### 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
South	Limpopo	Nitrogen based chemicals	Ton	Liters	951	Withdrawals	Obtain from GG

Country	River basin	Product name	Product unit	Water unit	Water intensity (Water unit/Product unit)	Water use type	Comment
Africa		and explosives					progress report

#### 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	76-100	ISAE 3000
Water withdrawals- volume by sources	76-100	ISAE 3000
Water discharges- total volumes	76-100	ISAE 3000
Water discharges- volume by destination	76-100	ISAE 3000
Water discharges- volume by treatment method	Not verified	ISAE 3000
Water discharge quality data- quality by standard effluent parameters	Not verified	ISAE 3000
Water consumption- total volume	76-100	ISAE 3000
Water recycling/reuse-total volume	76-100	ISAE 3000

#### 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
Individual/Sub-set of the Board or other committee appointed by the Board	Sporadic-as important matters arise	The Social & Ethics committee considers 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
Establishment of sustainability goals	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.

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**W6.2b**

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

<b>Influence of water on business strategy</b>	<b>Please explain</b>
Increased capital expenditure	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 Affairs. The WUL specifies very stringent compliance conditions which will require capital intensive projects to be implemented in order to ensure compliance.

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**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**

<b>Primary reason</b>	<b>Please explain</b>
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**W6.3**

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

Yes, a company-wide water policy

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**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?**

<b>Water-related spending: % of total CAPEX during this reporting period compared to last reporting period</b>	<b>Water-related spending: % of total OPEX during this reporting period compared to last reporting period</b>	<b>Motivation for these changes</b>
100%	22%	%age change from the last reporting period is greater than 100% for CAPEX due to the Discharge to Sewer project

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**Further Information**

**Page: W7. Compliance**

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**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

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**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

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**Further Information**

**Page: W8. Targets and Initiatives**

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W8.1

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

Yes, targets only

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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
Absolute reduction of water withdrawals	Risk mitigation	AECI has set an interim target for 2103 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	80.3%

#### 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

#### 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**

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**W9.1**

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

<b>Name</b>	<b>Job title</b>	<b>Corresponding job category</b>
Gary Cundill	Group Technical and EH&S Manager	Environment/Sustainability manager

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**Further Information**

**CDP 2014 Water 2014 Information Request**