CDP 2012 CDP Water Disclosure 2012 Information Request

AECI Ltd Ord

Module: Introduction - 2012 CDP Water Disclosure

Page: Introduction - 2012 CDP Water Disclosure

0.1
Introduction

Please give a general description and introduction to your organization.

AECI is an explosives and specialty chemicals company 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 America and South East Asia. AECI's businesses are characterised by application know-how and service delivery. They often operate in niche markets and are supported by leading technology which is developed in-house or is sourced from international partners.

In the last five years the Group has invested R2 billion in a strategic capital investment programme to enhance its future growth in the mining and manufacturing areas, with particular emphasis on mining chemicals and initiating systems.

AEL Mining Services ("AEL") is a developer, producer and supplier of commercial explosives, initiating systems and blasting services for the mining, quarrying and construction sectors in Africa and further afield, particularly Indonesia. The business has a presence in 23 countries. It is well established across the African continent, and in line with its international strategy, has moved successfully into South East Asia. AEL's technology and product positions in initiating systems and bulk explosives have enabled it to enter into mutually beneficial channel partnerships with leading regional explosives players in Europe and Latin America. AEL's largest site is at Modderfontein, Johannesburg, Gauteng.

In the specialty chemicals cluster, 16 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 South Africa and 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 in the Free State.

In addition to its core businesses the Group has a valuable land asset, the release of which is managed carefully. These 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 over the longer term for residential, commercial and industrial end uses and for leasing purposes.

SANS Technical Fibers in the USA is the Group's fourth business. It manufactures and markets a range of high performance, specialty nylon industrial yarns for niche market applications in the USA, Asia and Europe.

AECI has a total employee complement of about 7141, many of whom are engaged in the Group's extensive sales, technical service and distribution networks.

0.2
Reporting Year
Please state the start and end date of the year for which you are reporting data.

Enter the period that will be disclosed.
Sat 01 Jan 2011 - Sat 31 Dec 2011

0.3
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

0.4
Exclusions

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

No

Module: 2012-Water-Management

Page: 2012-Water-1-ManagementGovernance

1.1
Does your company have a water policy, strategy or management plan?

No

1.1d
You may explain here why your company does not have a water policy, strategy or plan and if you intend to put one in place.

AECI has formulated environmental targets, focusing on water, waste and energy management that will be applicable across Group Operations. These targets, which focus on a broad range of areas including water use, will feed in to an over-arching environmental strategy. The environmental targets process is being rolled out as a part of AECI's Green Gauge process. The target setting phase is comprised of a targeted resource efficiency assessment phase and water conservation and demand management is one component of this phase. AECI has identified 15 priority sites and assessments commenced at these sites in November 2011 and are anticipated to be completed in September 2012. Once the assessments are complete and the results have been consolidated, a Group Water Management Strategy will be formulated.

1.2
Do you wish to report any actions outside your water policy, strategy or management plan that your company has taken to manage water resources or engage stakeholders in water-related issues?

Country or geographical reach	Category of action	Description of action and outcome
South Africa	Collective action	Actions: AECI companies are signatories of Responsible Care in South Africa. Responsible Care is the chemical industry's unique global initiative that drives continuous improvement in safety, health and environmental (SHE) performance, together with

Country or geographical reach	Category of action	Description of action and outcome
		open and transparent communication with stakeholders. Responsible Care embraces the development and application of sustainable chemistry, helping our industry contribute to sustainable development while allowing us to meet the world's growing need for essential chemicals and the products those chemicals make possible. The Responsible Care Standing Committee, currently chaired by AECI's Group Manager for Technology and SHE, is responsible for guiding the programme. One of the key fundamentals of this is that there is open communication on safety, health and environmental matters with interested parties, both inside and outside the industry. Outcomes: Key stakeholder issues pertaining to aspects such as water pollution incidents, remediation actions and progress reports and Responsible Care management practice standard on Community Interaction are addressed during the CAER meetings.

Module: 2012-Water-RisksOps

Page: 2012-Water-2-indicators-op

2.1

Are any of your operations located in water-stressed regions?

Yes

2.1a

Please specify the method(s) you use to characterize water-stressed regions (you may choose more than one method).

Method used to define water stress	Please add any comments here:
Internal company knowledge Regional government assessments or databases	The assessment of the location of the operational units in water-stressed areas is based on in-house knowledge of location of specific sites and the relevant Internal Strategic Perspectives (ISPs) conducted by the Department of Water Affairs.

2.1b

Please list the water-stressed regions where you have operations and the proportion of your total operations in that area.

Country or geographical reach	Region within country	Proportion of operations located in this region (%)	Further comments
South Africa	Gauteng and Free State	41 – 50	Crocodile-West Marico Water Management Area and Upper Vaal Water Management Area
South Africa	Kwa-Zulu Natal	31 – 40	Mvoti-Mzimkulu Water Management Area
South Africa	Western Cape	11 – 20	Berg River Water Management Area

2.2

Are there other indicators (besides water stress) which you wish to report that help you to identify which of your operations are located in regions subject to water-related risk?

No

2.2b

You may explain here why you do not wish to report or why you do not use other indicators to identify which of your operations are located in regions subject to water-related risk.

AECI recognises that South Africa is a water constrained country and that the areas in which a large portion of its operations are located are water stressed from time to time, particularly during periods of drought. As mentioned previously, AECI has not previously quantified this aspect and previously there was no formal process to address this aspect. With the launch of the AECI Green Gauge process in 2011 as well as the Risk Management process, AECI is attempting to identify environmental and operational risks. The Green Gauge process is characterised by water assessments at 15 prioritised sites and it is anticipated that this exercise will provide some input into water-related risks.

2.3

Please specify the total proportion of your operations that are located in the regions at risk which you identified in questions 2.1 and/or 2.2.

75%

2.4

Please specify the basis you use to calculate the proportions used for questions 2.1 and/or 2.2.

Basis used to determine proportions	Please add any comments here
Number of facilities	

Page: 2012-water-indicators-sc

2.5

Do any of your key inputs or raw materials (excluding water) come from regions subject to water-related risk?

No

Further Information

AECI recognizes that South Africa is a water-constrained country and that the areas in which its operations are located are water-stressed from time to time, particularly during periods of drought. However, AECI has only recently initiated a process to be able to respond to this question. AECI has commenced water use assessments at 15 prioritised sites that will aid in identifying which key-water intensive inputs come from regions that are subject to water-related risk.

Page: 2012-water-3-riskassess-op

3.1

Is your company exposed to water-related risks (current or future) that have the potential to generate a substantive change in your business operation, revenue or expenditure?

Yes

3.1a

Please describe (i) the current and/or future risks to your operations, (ii) the ways in which these risks affect or could affect your operations before taking action, (iii) the estimated timescale of these risks, and (iv) your current or proposed strategies for managing them.

Country or geographical reach	Risk type	Potential business impact	Estimated timescale (years)	Risk management strategies
South Africa	06. Regulatory: Higher water prices	If no water is available, 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 – 5	As the company's operations are located in an area where water is considered a scarce resource, AECI recognises that water availability may in future be constrained as a result of increasing industrial pressure on water supply and as a result of climate change, and therefore needs to be conserved. Going forward, AECI will look to become an active participant in matters relating to water management in its areas of operation. This could be done through a number of means including discussing water issues with local community members as well as continuous dialogue with local, regional and national government water departments.
South Africa	Other: 03. Physical: Increased water stress or scarcity (leading to e.g. disruption to operations, higher commodity/energy prices)	South Africa is generally regarded as a water-stressed country. With water resources already under pressure in South Africa, Climate Change could lead to a further decline in the availability of water resources and the chemical processing and services industry could be more vulnerable to fluctuating water availability, precipitation patterns, altered groundwater levels and changing stream flow patterns. This can potentially affect water balances which could result in a shortage of the water supply available from rivers and boreholes. Moreover, this is set to happen at the same time as socio-economic development will increase the demand for water. The major overall effect of pressure on water availability is on AECI's integrated water balance which guides AECI's in determining the quantity of water available for planning and operations. In the northern regions of the country where AECI's operations are located, the already dry winter rainfall region is expected to become drier. AECI does rely quite heavily on water availability and a scarcity in water could have a slowing effect on productivity. If water availability becomes scarcer, this may lead to an increase in operational costs as more supply will be required from municipal suppliers. AECI currently uses 4.87 billion litres of water per annum. If water shortages increase, this cost is likely to rise by 20 – 30%.	1 – 5	AECI is currently looking at ways to decrease dependency on water supplied from other sources. Through a climate change strategy, water has been identified as a potential climate risk that AECI will need to address going forward.

3.2

What methodology and what geographical scale (e.g. country, region, watershed, business unit, facility) do you use to analyze water-related risk across your operations?

Risk methodology	Country or geographical scale
(i) The types of risks that AECI have considered are safety, health and environment (SHE). These are risks which remain inherent in AECI's businesses. The wellbeing of the employees and contractors, customers and the community at large is of paramount importance. It is also essential that AECI protects the environment in which it operates so as to continue being an acceptable corporate citizen in the territories in which it has a presence. The Board also takes into account material changes and trends in the risk profile and considers whether the control systems adequately support the Board in achieving the risk management objectives. (ii) AECI has established an Enterprise Risk Management Framework, with supporting standards, that provides a consistent framework for the assessment and management of risks. Risks are ranked using a common methodology and where the risk is assessed as material it is reported and reviewed by the Executive Committee and Senior Management as part of the risk management escalation process. All relevant risks that are identified and evaluated will be ranked based on their potential impact and probability of occurrence. Appropriate management information and monitoring processes are in place to manage the exposure to each of the key risks to ensure that, where required, necessary corrective action can be taken. (iii) Another aspect is the process of sustainability reporting and considering the findings and recommendations of the Risk and Corporate Citizenship committees; and addressing the KPMG findings on assurance. The risk management system meets regulatory requirements.	Country

Page: 2012-water-riskassess-sc

3.3

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

No

3.4

Is your supply chain exposed to water-related risks (current or future) that have the potential to generate a substantive change in your business operation, revenue or expenditure?

Don't know

3.4c

Please explain why you do not know if your supply chain is exposed to any water-related risks that have the potential to generate a substantive change in your business operation, revenue or expenditure, and if you have plans to assess this risk in the future.

AECI is in the process of establishing the areas of its operations are most exposed to water-related risks. Once this process has been completed it will start to look at its key inputs throughout the supply chain and will strive to identify which of these inputs are exposed to water-related risks going forward.

Page: 2012-Water-4-Impacts

4.1

Has your business experienced any detrimental impacts related to water in the past five years?

Yes

4.1a

Please describe these detrimental impacts including (i) their financial impacts and (ii) whether they have resulted in any changes to company practices.

Most of the companies within the AECI Group use water from municipal sources and discharge effluent to municipal sewers for treatment. These companies have not experienced detrimental impacts related to availability of water. However, three companies within the Group received fines for non-compliance of effluent discharge quality to municipal sewers. In order to address this aspect all three companies have commissioned effluent treatment plants in order to ensure that the effluent discharged to the sewers complies with the municipal by-law standards.

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. While the exact costs are still being determined, the practises within the company are being addressed to ensure better water management and efficient utilisation of water resources for abstraction and discharge.

Page: 2012-Water-5-Opportunities

5.1
Do water-related issues present opportunities (current or future) that have the potential to generate a substantive change in your business operation, revenue or expenditure?

Yes

5.1a
Please describe (i) the current and/or future opportunities, (ii) the ways in which these opportunities affect or could affect your operations (iii) the estimated timescale and (iv) your current or proposed strategies for exploiting them.

Country or geographical reach	Opportunity type	Potential business impact	Estimated timescale	Strategy to exploit opportunity
South Africa	Increased brand value	AECI sees a reputational advantage being gained if water conservation and water management are successfully integrated into business operations. Equally, if AECI's water related products see an increase in demand, the company will as a result begin to see an increase in revenues and profits. This may be magnified if clients and customers value products that have been created with minimal impact on water supply.	1 – 5	Identify potential areas and customers where water treatment technologies such as those developed by ImproChem can be further applied and marketed.

Page: 2012-Water-6-tradeoffs

6.1
Has your company identified any linkages or trade-offs between water and carbon emissions in its operations or supply chain?

No

Module: 2012-Water-Account

Page: 2012-Water-7-Withdrawals

7.1
Are you able to provide data, whether measured or estimated, on water withdrawals within your operations?

Yes

7.1a
Please report the water withdrawals within your operations for the reporting year.

Country or geographical reach	Withdrawal type	Quantity (megaliters/year)	Proportion of data that has been verified (%)	Comments
South Africa	Municipal water	3517.08	76-100	
South Africa	Surface	760.84	76-100	
United States of America	Municipal water	78.81	76-100	
Brazil	Municipal water	33.91	76-100	
Morocco	Municipal water	0.06	76-100	
Tanzania	Municipal water	3.98	76-100	
Ghana	Groundwater	55.77	76-100	
Burkina Faso	Municipal water	1.08	76-100	
Zambia	Municipal water	106.09	76-100	
Zimbabwe	Municipal water	0.74	76-100	
Botswana	Municipal water	77.13	76-100	
Indonesia	Municipal water	81.75	76-100	

7.2
Are you able to provide data, whether measured or estimated, on water recycling/reuse within your operations?

Yes

7.2a
Please report the water recycling/reuse within your operations for the reporting year.

Country or geographical reach	Quantity (megaliters/year)	Proportion of data that has been verified (%)	Comments
South Africa	19.59	76-100	

7.3
Please use this space to describe the methodologies used for questions 7.1 and 7.2 or to report withdrawals or recycling/reuse in a different format to that set out above.

7.4
Are any water sources significantly affected by your company's withdrawal of water?

No

7.4b

You may explain here why your company's withrawal of water does not significantly affect any water sources.

Most of the operations in the Group obtain their raw water needs from Municipal sources and do not withdraw directly from a water resource. While these operatins may be located in water sensitive areas, there has been no indication that the water consumption of these operations has significantly affected a water source.

Heartland Leasing (Umbogintwini and Modderfontein) obtain raw water from natural sources under license from the Department of Water Affairs (DWA). No indication has been provided by the DWA that the abstractions significantly affect the respective water resources.

Page: 2012-Water-8-Discharges

8.1

Are you able to identify discharges of water from your operations by destination, by treatment method and by quality using standard effluent parameters?

Yes

8.2

Did your company pay any penalties or fines for significant breaches of discharge agreements or regulations in the reporting period?

Yes

8.2a

Please describe the location and impact of the discharge that was the subject of the significant breach(es), the associated fines and any actions taken to minimise the risk of future non-compliance.

Country or geographical reach	Impact	Fines and penalties	Company action and outcomes
South Africa	Trade effluent discharged to the municipal sewers failed to comply to the quality requirements stipulated by the local authorities.	ZAR 213 678.62 in fines issued by municipalities.	This figure for the fines has only been depicted for two companies. The third company does not receive specified fines since monthly treatment costs are adjusted by the municipality based on effluent qualities. All three companies have commissioned effluent treatment plants to ensure that the effluent qualities comply to the stipulated limits.

8.3

Are any water bodies and related habitats significantly affected by discharges of water or runoff from your operations?

Yes

8.3a

Please list any water bodies and associated habitats which are significantly affected by discharge of water or runoff from your operations.

Country or geographical reach	Water body	Impact	Company action and outcomes
South Africa	Modderfontein Spruit	AEL, a subsidiary of AECI, discharges into the Modderfontein Spruit in the Gauteng Province of South Africa. The quality of the water discharged has the potential to cause a negative impact on downstream users.	Engagement with the DWA is on-going. Progress has been made with resolution of some concerns which were raised with the Department. Outstanding issues are still being negotiated in a cooperative manner. A number of projects are in progress, furthermore, new projects have been identified which if approved should improve the move towards compliance. These projects, generally speaking, are of a capital intensive nature and have been scheduled to be implemented between 2012 and 2016.

Page: 2012-Water-9-Intensity

9.1

Please provide any available financial intensity values for your company's water use across its operations.

Country or geographical region	Financial metric	Water use type (megaliters)	Currency	Financial intensity (Currency/mega-liter)	Please provide any contextual details that you consider relevant to understand the units or figures you have provided.
Global	Profit	Withdrawals	ZAR (R)	176495.3665	

9.2

Please provide any available water intensity values for your company's products across its operations.

Country or geographical region	Product	Product unit	Water unit	Water intensity (Water unit/product unit)	Water use type	Please provide any contextual details that you consider relevant to understand the units or figures you have provided.