

CDP 2011 CDP Water Disclosure 2011 Information Request

AECI Ltd Ord

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0.1

Introduction

Please give a general description and introduction to your organization.

AECI is a specialty product and services Group of companies which provides value-adding solutions to customers through science, technology and industry knowledge. The focus is on serving the mining and manufacturing sectors and in 2009 the Group invested a further R1 billion of the R2 billion strategic capital programme in capital projects to enhance its future growth in these areas. By the end of 2009, all significant projects were mechanically complete. Commissioning had been concluded or was in progress. Although the projects relate mainly to the mining sector, capital was also invested to augment the Group's ability to service consumer-driven markets.

AECI's core businesses serve global and regional markets. They are characterised by application know-how and service delivery, operate in niche markets, and are supported by leading international technology alliances.

Principal manufacturing sites are located in South Africa, near Johannesburg (explosives and mining services, provided by AEL Mining Services, and specialty chemicals provided by Chemical Services).

Chemical Services, which comprises 20 separate operations, also has a major site near Durban as well as a number of smaller sites country-wide. Its mining chemicals thrust is anchored in Senmin, which operates at Sasolburg in the Free State.

AEL Mining Services and Chemical Services have expanded their presence beyond South Africa. Both businesses continue to explore opportunities to take their products and service packages to niche markets in countries beyond their traditional areas of activity.

AEL Mining Services has a presence in 23 countries. It is well established across the African continent and, in line with the company's international strategy, business in its South East Asian hub made pleasing progress in 2009, particularly in Indonesia. In the year, the company's excellent technology and product position in initiating systems and bulk explosives enabled it to enter into mutually beneficial channel partnerships with leading regional explosives players in Europe and in South America.

Chemical Services has established a stable presence in Brazil and more acquisitions continue to be sought using the existing investment as a platform for growth. To an increasing degree, opportunities in other territories in Southern Africa and beyond are being explored.

In addition to its core businesses, the Group has a most valuable land asset, the release of which it manages carefully. The property activities are managed by Heartland and 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 properties.

The land holdings are significant and are located in prime locations near Johannesburg and Cape Town. More than 2 000 hectares of excess land are available for redevelopment over the next 15 to 20 years for residential, commercial and industrial end uses and for leasing purposes. SANS Technical Fibers, in the USA, is the Group's fourth business.

AECI has a total employee complement of about 6 450, many of whom are engaged in the Group's extensive sales, technical service and distribution networks.

The Company is domiciled in South Africa and is listed on the JSE Limited

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.
Fri 01 Jan 2010 - Fri 31 Dec 2010

0.3

Reporting Boundary

Please indicate the category that describes the company, entities, or group for which you are reporting.

Companies over which financial control is exercised per consolidated audited financial statements

0.4

Exclusions

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

No

Module: 2011-Water-Management

Page: 2011-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 management plan and if you intend to put one in place

AECI is in the process of formulating 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 that will be completed by the end of 2011 through three phases. Phase one will be completed by July 2011 when the environmental targets will be finalised and ratified. By the end of August 2011 these targets would have been work-shopped and this will be followed by their integration into a final climate change strategy by November 2011.

1.2

What specific actions has your company taken to manage water resources or engage stakeholders in water-related issues?

Geographical reach	Type of action	Action	Outcomes
South Africa			

Geographical reach	Type of action	Action	Outcomes
	Collective action	AECI is the custodian of Responsible Care in South Africa. Responsible Care is the chemical industry's unique global initiative that drives continuous improvement in health, safety and environmental (HSE) performance, together with 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 an AECI senior manager, 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	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: 2011-Water-RisksOps

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2.1

Are you able to identify which of your operations are located in water-stressed regions?

Yes

2.1a

Please specify the method(s) you use to characterize water-stressed regions

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 percentage of your total operations in that area

Country	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

Do you use other indicators (besides water stress) to identify operations which are located in regions subject to water-related risk?

No

2.3

Please specify the total percentage 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 percentages used for questions 2.1 and/or 2.2

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

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2.5

Are you able to identify which of your key water-intensive inputs (excluding water) come from regions subject to water-related risk?

No

2.5b

You may explain here why you are not able to identify which of your key water-intensive inputs come from water-stressed regions and whether you have plans to explore this issue in the future

AECI recognises 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 not adopted a formal process to be able to respond to this question and will do so in the near future. In the coming months, AECI will require each site to carry out a water use audit that will aid in identifying which key-water intensive inputs come from regions that are subject to water-related risk. These will be carried out once all environmental targets have been ratified.

Page: 2011-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 the current and/or future risks to your operations, the ways in which these risks affect or could affect your operations and your current or proposed strategies for managing them

Country or geographical reach	Risk type	Risk description	Timescale (years)	Potential business impact	Risk management strategies
South Africa	06. Regulatory: Higher water prices	The company is largely dependent on	1 – 5	If no water is available, many of AECI's water intensive products will not be able to be	As the company's operations are located in an area where

Country or geographical reach	Risk type	Risk description	Timescale (years)	Potential business impact	Risk management strategies
		municipal Water for the supply of its potable water and industrial raw water feed where applicable and, while this source has not as yet been constrained, there is a possibility that that may be the case in the future.		produced and therefore there will be a decrease in product availability and a subsequent loss of revenue.	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	03. Physical: Increased water stress or scarcity (leading to e.g. disruption to operations, higher commodity/energy prices)	Changes in precipitation patterns are relevant where water is a critical resource for operations. In locations where AECI currently operates water is seen as a scarce resource. Impacts to changes in precipitation patterns vary regionally but significant effects are anticipated where reduced precipitation coincides with increased temperatures, causing exacerbated water stresses.	1 – 5	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%.	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, facility) do you use to analyze water-related risk across your operations?

Risk methodology	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 the 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) Overseen the process of sustainability reporting and considered the findings and recommendations of the Risk and Corporate Citizenship committees; and met with KPMG Inc. and Company Senior Management to consider the KPMG Inc. findings on assurance, as well as to make appropriate enquiries from management and has, through this process, received the necessary assurances that material disclosures are feasible and do not conflict with the financial information. The risk management system meets regulatory requirements.	Country

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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 risk 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: 2011-Water-4-Impacts

4.1

Please describe any detrimental impacts to business related to water your company has faced in the past five years, their financial impacts and whether they have resulted in any changes to company practices

The company has not faced any detrimental impacts to the business related to water in the past five years. Most of the operations within the Group discharge effluent to municipal sewers under contract with the relevant local municipality. No fines or penalties have been imposed on the operations by the local authorities.

Page: 2011-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 the current and/or future opportunities, the ways in which these opportunities affect or could affect your operations and your current or proposed strategies for exploiting them

Country or geographical reach	Opportunity description	Timescale	Potential business impact	Strategy to exploit opportunity
South Africa	The rising cost and tighter regulation of water, coupled with concerns about adequate long-term availability in many regions, is prompting many chemical companies to treat water conservation as an imperative in their sustainability efforts. AECI believe that this opportunity is immediate in terms of a time frame looking into the future. The major areas that AECI have identified for this opportunity would be the nitric plants where processing and manufacturing of AECI's products takes place. Opportunities are also linked to AECI's water solution products, especially those linked to ImproChem.	1 – 5	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.	Identify potential areas and customers where water treatment technologies such as those developed by ImproChem can be further applied and marketed.

Page: 2011-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: 2011-Water-Account

Page: 2011-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 (ML/yr)	Proportion of data that has been verified (%)	Comments
South Africa	Municipal water	5	76 – 100	

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

No

7.2b Please explain why you are not able to provide data for water recycling/reuse within your operations

AECI is striving to incorporate systems that will track water recycling/reuse within its operations. A new reporting template has been developed for the capture of environmental statistics. This template now incorporates reporting for water that is reused and recycled.

Based on data that will be collect over the current year, it will be possible to provide an indication of the amount of water that was reused or recycled for the Jan-2011 to Dec-2011 period.

In addition, once environmental targets are ratified by the Executive Board, it is anticipated that the climate change strategy will incorporate aspects of water use, recycling and re-use.

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 withdrawal 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 water directly from a water resource.

Hearltd Leasing (Umbogintwini) and AEL (Modderfontein) obtain their raw water needs from natural water 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: 2011-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?

No

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 related habitats which are significantly affected by discharge of water or runoff from your operations

Country	Water body	Impact	Company action and outcomes
South Africa	Jukskei River	AEL, a subsidiary of AECI, discharges into the Jukskei River in the Gauteng province of South Africa. The quality of the water discharged has the potential to cause a negative impact on downstream water users.	AEL is in process of appointing a specialist to conduct a comprehensive effluent audit and consequently develop a management and mitigation plan.

Page: 2011-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	Financial intensity (US\$/ML)	Please provide any contextual details that you consider relevant to understand the units or figures you have provided.
South Africa	Revenue	Water use in operations	338811195	

9.2

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

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