



Conserving natural resources and mitigating impacts



As a company involved in the exploration, extraction and processing of mineral resources, our activities result in the unavoidable disturbance of land, the consumption of resources, and the generation of waste and atmospheric and water pollutants.

Given these impacts, it is important that we demonstrate responsible stewardship of the resources we share with the societies in which we operate, particularly as our underground operations become deeper and consume greater amounts of energy and water. This involves taking measures not only to address security of resource supply (for example through efficiency, recycling and fuel-switching), but also to actively minimise our impacts on natural resources and on the communities around our operations. Taking such measures has direct benefits in terms of reduced costs and liabilities, enhanced resource security and improved security of our licence to operate.



An amended Implats environmental policy was published in August 2013

This year our direct environmental impacts were significantly reduced as a result of the closure of the Rustenburg operations during the five-month strike. Monitoring of the Group environmental indicators at Rustenburg was also affected. The decline in production translated into a decrease in the levels of water and energy consumed across the Group. An increase in the percentage of water recycled at all operations contributed to our improved water management performance. There were no 'critical' environmental incidents reported.

Management developments

An amended Implats environmental policy was signed and published in August 2013. The policy commits the Company to running our exploration, mining, processing and refining operations in an environmentally responsible manner, and to ensure the well-being of our stakeholders. The policy also commits to integrating environmental management into all aspects of the business with the aim of achieving world-class environmental performance in a sustainable manner.

The management of the environmental impacts of our operations and processes involves the following focus areas:

- ➔ Promoting responsible water stewardship by minimising water use and water pollution
- ➔ Minimising our negative impacts on air quality
- ➔ Responding to climate change risks and opportunities and promoting responsible energy management
- ➔ Managing our waste streams
- ➔ Promoting responsible land management and biodiversity practices.

All our operations are ISO 14001 certified. In line with our environmental management systems expectations, all operations are required to identify and report on environmental incidents. Systems are in place to investigate and determine the direct and root causes of high-severity incidents, and to address and close out these incidents. The implementation of an amended five-tier incident classification matrix for the Group will be rolled out in 2015.

To ensure continued assurance of legal compliance to all environmental authorisation requirements and conditions, we are implementing land management solutions for South African operations.

In addition to managing our direct environmental impacts, all operations are expected to develop or fund a flagship local community environmental project to visibly demonstrate that we have moved beyond just compliance on environmental issues.

All operations are expected to develop or fund a flagship local community environmental project to visibly demonstrate that we have moved beyond just compliance

Case study – Landfill site management

IMPALA RUSTENBURG SUPPORTS LOCAL WASTE PROGRAMME

Impala Rustenburg operation is proud to play a fundamental role in ensuring effective waste management in the Royal Bafokeng Nation. An estimated population of around 350 000, the majority of whom fall into the very low income range, generates nearly 60 000 tonnes of waste per annum. With no formal waste collection programme in place to serve the 29 villages scattered over a large geographic area, in 2010 the Royal Bafokeng Administration (RBA) introduced a two-bag collection service, as well as various recycling programmes, to serve all the villages. The initiative, however, proved unsustainable, due to the significant transportation and disposal costs to the nearest municipal landfill site.

Impala Rustenburg operation owns and operates a permitted general waste disposal facility within this general geographic area. This landfill site was developed to allow for full control over the operations' waste management efforts as well as correct and timeous disposal of general operational waste. In 2010, the RBA approached Impala for assistance with their waste collection service. It was agreed that the collected waste from the various villages could be disposed of at the Impala landfill site at no cost to the Bafokeng.

Impala Rustenburg's landfill site has to date accepted, and correctly disposed of, approximately 18 000 tonnes of domestic waste from the surrounding Bafokeng villages. This represents approximately 50% of the total waste volume managed at this site on a yearly basis. Not only has this resulted in a general improvement of the aesthetics of the area, but has directly contributed (both physically and financially) towards the social upliftment of the local community.



WATER STEWARDSHIP

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We are highly reliant on water for our mining, processing and refining operations

Our management approach to water stewardship

We are highly reliant on water for our mining, processing and refining operations. Water is an increasingly scarce resource and to maintain our licence to operate we continue to manage water quality. Our approach to water management is guided by our water conservation strategy, introduced in 2010. The strategy focuses on water consumption and quality management, proposes a framework for operation-specific water conservation strategies, and defines a water consumption baseline for the period to 2020. In fulfilment of this strategy we are implementing various projects to reduce potable water consumption, optimise industrial use and increase water recycling. Water risk assessments are reviewed on an annual basis. Surface ground water monitoring programmes are in place. We are currently reviewing and updating the strategy to further strengthen our commitment to water use efficiency and conservation. In fulfilment of our commitment to transparency on performance, we have once again participated in the Carbon disclosure project for Water Disclosure (CDP).

The South African operations continue to engage with the Department of Water Affairs (DWA) and are all in the process of amending the water-use licences (WULs). Obtaining these amendments is critical to ensuring that current operations are not affected and that the proposed expansion of operating activities are not stalled. The implementation of the DWA's newly formulated water discharge system, which entails effluent discharge penalties, is pending. At our Zimbabwe operations, the Environmental Management Agency was engaged to ensure that renewed licences for 2014 were issued. Water extracted from dams and rivers is all within the set allocation limits.

All our operations are in the process of determining their site-specific water balances. This will assist in developing action plans, with measurable targets, to ensure further progress. We work closely with different stakeholders to ensure security of supply for our operations and the surrounding communities.

The management of water continues to receive a high level of focus at the Rustenburg operations. Dry conditions experienced in the north west of South Africa, together with municipal potable water supply problems, presented challenges for the operations and highlighted the need for improvements in water management. Two major projects are in progress at the Rustenburg operations, namely:

- ➔ *The Ground water impact:* A study commissioned by Impala Rustenburg to map the possible impact of the mining operations on ground water was completed, and the findings have been shared with the Royal Bafokeng as the land owners. Executive management are reviewing strategic solutions to mitigate reputational risks identified through the study. The deep groundwater model update, including all underground workings at the operations, has been completed. A second phase will involve the incorporation of a dynamic and static water balance simulation model that will assist with water management.
- ➔ *Water quality improvement project:* A ground and surface water quality treatment project has been approved and will run during the course of 2015 and 2016. The aim of the project is to remediate the pollution plume around the tailings dam, primarily by installing boreholes around the tailings dam, reusing the water at processing as well as by means of biological accumulators such as planting trees around the tailings dam and installing floating wetlands in the Rockwall dam, to improve the quality of the water.

Our 2014 performance on water

Water management has improved at all our operations this year. Total water consumption for the Group was 34 775 megalitres, including both water withdrawn and water recycled. This represents a decrease of 15% on water consumption in 2013 (40 711 megalitres) and is predominantly attributed to the closure of the Rustenburg operations throughout the five-month strike.

A 14% increase in our unit consumption rate of water (kilolitres per tonne ore milled) over the 2013 levels is due to the strike action in Rustenburg as well as the exclusion of Mimosa production numbers. This year we set a recycled water target of 40% and have seen a greater focus on recycling initiatives throughout the organisation. A total of 13 409 megalitres of water was recycled, which equates to 39% of all the water consumed for the year, which was 1% below our annual target of 40%. However, in the first half of financial year 2014 (before the strike) 41% of water was recycled. The amount of potable water consumed decreased by 15% on 2013 levels. The Refineries operation is a zero effluent site; some of the process water streams are treated to boiler quality and are reused, with no effluent released into natural water courses.

Total water consumption for the Group was 34 775 megalitres, a 6.5% decrease in our unit consumption rate of water over the 2013 levels

Further details on the total water withdrawn, consumed and recycled at each of our operations are provided in the performance table on page 104.

Consumption (Mℓ)	2014	2013	2012	2011	2010
1) Water from water service providers or municipalities	7 515	8 851	10 722	12 636	11 970
2) Waste water from other organisations	2 313	2 598	2 767	3 769	3 668
3) Water from rivers	2 175	2 344	2 124	2 337	2 659
4) Water from dams	6 696	8 777	7 891	7 016	7 506
5) Water from ground water	2 667	2 870	1 770	1 287	1 276
Water withdrawn (1 + 2 + 3 + 4 + 5)	21 365	25 440	25 274	27 045	27 079
Water internally recycled	13 409	15 271	14 840	14 823	9 981
Total water consumption	34 775	40 711	40 114	41 868	37 060

Notes:

Note 1: From 2011 the Zimplats and Mimosa water withdrawn from rivers and dams excludes water provided to communities (in line with the SA operations).

Note 2: At Marula and Zimplats, fissure water is included as groundwater from 2011. Our Zimplats operation uses a potentially significant amount of fissure water in one of its mining operations that has not as yet been quantified.

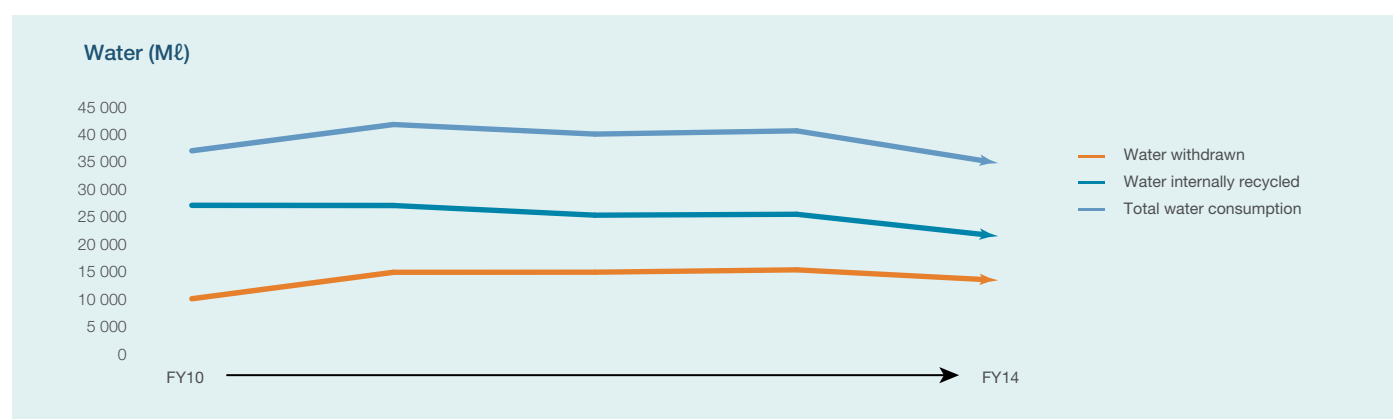
Note 3: From 2011 the Refineries water withdrawn includes domestic water (offices, stores, etc.). This is in line with Group reporting.

Note 4: Unit consumption is in kl/tonne ore milled except for Refineries which is kl/tonne matte milled.

Our water focus for 2015 and beyond

We have prioritised various activities in the year ahead. These include:

- Increasing the percentage of water that we recycle to 40%, and reducing our water withdrawn including potable water
- Continuing to engage with authorities and communities on water-related issues to ensure we meet regulatory and society expectations
- Reviewing and updating our water conservation strategy and driving its implementation at operational level
- Investigating the feasibility of water treatment alternatives.





In implementing our carbon management strategy, our focus remains on energy-efficiency projects

Our management approach to climate change and energy

Climate change has potentially significant implications for our activities, resulting both from governmental policy requirements as well as the physical impacts of a changing climate. A detailed review and assessment of the climate change risks and opportunities for Implats can be found in our submission to the CDP's Climate Change Programme, available at www.cdproject.net.

In implementing our carbon management strategy, our focus remains on energy-efficiency projects. Security of energy supply and rising prices are significant material risks for our operations in South Africa and Zimbabwe. Electricity consumption accounted for around 70% of our total energy consumption in 2014, 11% of our overall cash cost base. Our projected expansion into deeper operations that are more energy intensive, coupled with the proposed introduction of a carbon tax in South Africa in January 2016, emphasise the business requirement to focus on reducing and optimising our energy use.

As the scope for further energy efficiency and reduction initiatives at our smelters and refineries is minimal, our focus is mainly on mining operations. The South African operations work closely with Eskom and participate in demand-side management (DSM) programmes. We seek to improve operational and design efficiencies, incorporating best practice technology and processes. Our longer-term strategic investments include exploring a carbon neutral fuel source for our operations, and participating in collaborative efforts to develop fuel-cell technology.

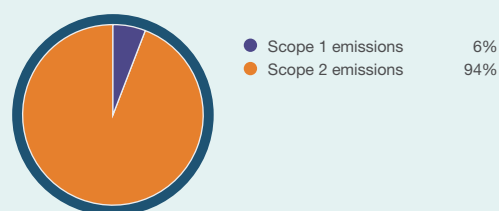
We have determined an absolute GHG emissions reduction target of 5% by 2020 from the base year 2008 (year of first carbon footprint assessment), in line with our projected growth profile.

Our 2014 carbon and energy management performance

Total CO₂ emissions for 2014 amounted to 3 million tonnes, as compared with 3.8 million tonnes in 2013. The significant decrease is largely attributable to reduced production as a result of the strike action in 2014 at our Rustenburg operations, which accounted for 67% in comparison to the typical 75% of the Group total CO₂ emissions.

The bulk of our emissions (2.7 million tonnes) fall under Scope 2 emissions which are associated with Eskom electricity usage, with the balance (0.3 million tonnes) arising from burning fossil fuels such as coal, diesel, petrol and industrial burning oil (Scope 1 emissions). Emissions intensity (tonnes of CO₂ per tonne of ore milled) in 2014 was 0.218, as compared with 0.206 in 2013. This has been impacted by the exclusion of Mimosa from the production figures. Additional data on our direct and indirect greenhouse gas emissions and our energy usage, by operation for each of the past five years, are provided in the performance table on page 105.

Scope 1 and Scope 2 emissions



Implats conducts an annual greenhouse gas emissions assessment to understand the Group's exposure and identify areas for GHG mitigation and increasing efficiencies. To date, over R100 million has been spent on the implementation of energy conservation programmes, resulting in a 3.1% reduction in indirect energy usage. Following is a brief review of the principal energy-efficiency initiatives being implemented:

- ➔ Promoting the optimal use of compressed air systems at the Rustenburg operations, by examining equipment performance and ensuring the flow of compressed air is maximised during off-peak times and minimised during peak times, is anticipated to achieve a reduction of 7.8GWh per annum
- ➔ The conversion of all underground lighting at Rustenburg operations to a more energy-efficient lighting source is anticipated to reduce annual consumption by 15GWh
- ➔ Power factor correction equipment has been installed at Rustenburg and Mimosa with initial performance monitoring indicating an average 4% reduction in energy consumption, exceeding the anticipated 2.5% reduction

We achieved an 18% reduction in energy consumption levels, exceeding the anticipated 2.5% reduction

- ➔ Following the trial use of fibreglass reinforced plastic (FRP) fan blades at Mimosa, which proved to be more efficient and consume 35% less power compared to steel, a more robust high-efficiency underground auxiliary fan with proven energy savings similar to FRP blades was identified. Subject to approved funding, a replacement fleet of 75 auxiliary fans will be installed, with projected energy savings of \$84 000 achieved per annum
- ➔ Our coal to biomass fuel-switch project aims to use bamboo as an alternate fuel source to coal. Initial testing confirmed the feasibility of using the biomass as an alternative, but raised concerns about the calorific content of bamboo and challenges associated with its cultivation. The project has been submitted for registration as a Clean Development Mechanism (CDM) to enable future carbon credit issuances.
- ➔ We are exploring opportunities to investigate alternative carbon neutral fuel sources. These initiatives are evaluated periodically to ensure effectiveness and validity.

Climate change indicators	Units	2014	2013	2012	2011	2010
Direct CO ₂ emissions (Scope 1 emissions)	(t000)	323	401	418	436	395
Indirect CO ₂ emissions (Scope 2 emissions)*	(t000)	2 714	3 332	3 113	3 462	3 176
Electricity purchased	(MWh000)	2 780	3 395	3 322	3 469	3 267
Direct energy	(GJ000)	4 386	5 350	5 584	5 661	5 250
Indirect energy	(GJ000)	10 008	12 224	11 958	12 561	11 763
Total energy	(GJ000)	14 395	17 574	17 542	18 222	17 013

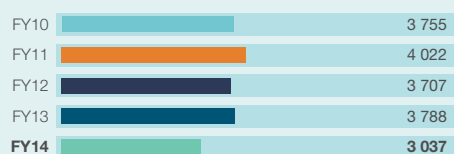
* Indirect CO₂ emission restated in FY2014.

Our carbon and energy management focus for 2015 and beyond

We have prioritised the following climate change and energy management activities for the year ahead:

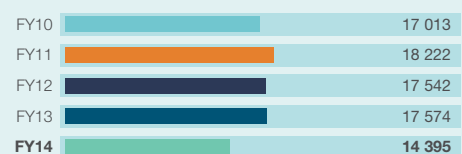
- ➔ Further understanding the impact of climate change on our operations and surrounding communities
- ➔ Improving our energy data management systems, to ensure that we report accurate and comprehensive information. This is vital for defining an effective strategy, complying with anticipated mandatory regulations, and setting and achieving realistic targets on energy consumption, efficiency and emissions reductions
- ➔ Updating the Group carbon footprint and setting realistic reduction targets for each operation in line with our carbon management strategy
- ➔ Aligning our South African operations with the government's Integrated Energy Plan
- ➔ Continuing to work with government and academic institutions on the development of fuel-cell technologies that will utilise PGMs as alternative energy sources. An amount of R2 million a year has been committed for this work with a total budget of R6 million allocated to the project.

Total CO₂ emission (t000)



FY14: 3 037
19% decrease

Total energy consumption (GJ000)



FY14: 14 395
18% decrease

AIR QUALITY MANAGEMENT

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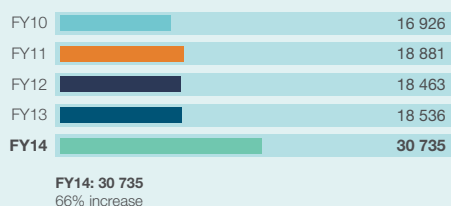
Ambient air quality is monitored at our operations via a network of ambient monitoring stations

Our management approach to air quality

The most significant air quality emission for the Group relates to the sulphur dioxide (SO₂) emissions from our smelting and refining operations in Rustenburg, Springs and Zimplats. The South African operations are subject to the Air Quality Act and adhere to the requirements of legislative developments. In Zimbabwe, legislation for air quality was introduced in 2009, governing the issuing of emission licences. Our objective is to ensure that we comply with all licence requirements. A renewal application for an air emissions licence (AEL) for our Rustenburg operations was submitted and finalisation is pending; the operation also submitted a requested air impact assessment to support its renewal application. An AEL for Refineries operations has been approved. Both our Rustenburg and Refineries operations are located within the priority areas as promulgated by the National Environmental Management Air Quality Act.

Ambient air quality is monitored at our operations via a network of ambient monitoring stations. These monitoring stations measure SO₂, NO₂ and particulate matter and provide an indication of ambient air quality levels and associated trends.

Total direct SO₂ emitted (t)

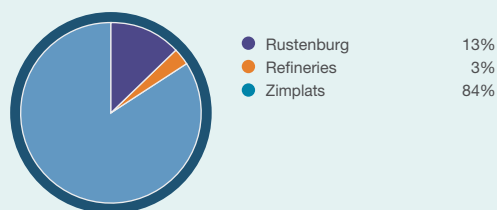


Our 2014 performance on air quality

At Impala Rustenburg, Refineries and Zimplats, average daily SO₂ emissions are calculated daily. Rustenburg's SO₂ emissions dramatically decreased throughout the second half of the year mainly due to the prolonged strike action.

This year, total direct Group emissions of SO₂ were 30 735 tonnes, up from our emissions of 18 536 tonnes in 2013. Our Zimplats operations contributed 84.5% of total direct SO₂ emissions, while Rustenburg and Refineries operations contributed 12.1% and 3.3% respectively. The significant increase in SO₂ emissions was as a consequence of the Zimplats phase 2 expansions, a 33% increase in sulphur in concentrate with increased production levels as well as improved laboratory assays. Due to the recalibration of the XRF analysis machine in July 2013, a significant SO₂ increase was realised. As such year-on-year figures are not comparable. Indirect SO_x amounted to 24 665 tonnes and indirect NO_x amounted to 12 107 tonnes. Further details on the SO₂ emissions at each of our operations over the past five years are provided in the performance table on page 105. Daily ambient standards exceedances were all within the allowable exceedance frequency.

% direct SO₂ emissions



We have prioritised addressing the Zimplats SO₂ output to align with Group standards. We aim to complete a feasibility study for the Zimplats SO₂ abatement plant in 2015 for construction to begin in 2016. The estimated cost of the SO₂ abatement scrubber is US\$80 million.



Our approach to waste management across the Group seeks, as a minimum, to ensure compliance with the emerging legislative requirements relating to waste. During the year many of the pending regulations in South Africa were finalised and published by the South African Department of Environmental Affairs; these included regulations on waste classification and management, landfill disposal, landfill assessment, and an updated list of all waste licensing activities. Norms and standards on the remediation of contaminated land and the storage of waste were also published. The most significant implications for Implats are associated with the National Environmental Management Waste Amendment Act and the National Environmental Laws Amendment Act. These stipulate that mine residue deposits and stockpiles in future will also be governed by the Waste Act and be subject to all licensing requirements, as well as the stated regulations and standards. This will place additional administrative demands on mining companies, and present potentially significant costs. Clarifying and understanding the discrepancies between the newly imposed requirements under the Waste Act, and the current regulations under the MPRDA, will remain a focus for Implats in the coming year.

During the reporting period both Marula and Refineries submitted applications for waste licences for their waste management activities and the outcomes are still pending.

The hazardous waste situation remains challenging in Zimbabwe, with no facilities in line with South African or international best practices being available. The Refineries team is investigating the export of jarosite to China as an option to divert waste from landfill. All legal requirements in terms of the Basel Convention are being assessed. All operations continue to investigate reuse and recycling opportunities.

The Group's recycling rate for 2014 was 69.1% versus 67.9% in 2013. A large portion of the waste from Rustenburg and Refineries is treated; although treatment is regarded as a better waste management solution than disposal, technically it is not considered a 'recycling' method. Implats continuously evaluates waste management by scrutinising current trends compared against best practice and legislative requirements. Adjustments are made where necessary. Our activities for the coming year centre on clarifying the expectations of emerging regulatory developments and ensuring we meet requirements.

LAND MANAGEMENT AND BIODIVERSITY

Our approach to land stewardship focuses on rehabilitation, while ensuring the responsible management of water, biodiversity, mineral waste and hazardous substances. Rehabilitation is a key regulatory and financial risk for Implats and is linked to annual closure liabilities, which are reviewed and updated annually in line with regulations. An important input towards the annual liability update is our assessment of our ground water impacts and associated mitigation processes. Our rehabilitation activities adhere to a defined Implats mine closure methodology and our South African operations follow the prescribed norms and standards for the remediation of contaminated land in terms of the Waste Act.

Developments in 2014

Rehabilitation activities this year focused on maintaining previously rehabilitated side slopes as well as grassing new risings. Both Marula and Refineries completed their contaminated land assessments and remediation plans. At our Rustenburg operations, the last of the opencast pits has been rehabilitated. A total of 46.6ha was rehabilitated over the reporting period. Following the identification of certain sites that were struggling to rehabilitate unassisted, appropriate intervention, for example erosion controls and chemical amelioration, is being undertaken where required, to ensure that these sites are sustainably rehabilitated. The current cost estimate for Rustenburg closure, amounted to R962.5 million; financial provisions for this amount are in place as per DMR requirements.

Following the cessation of all opencast mining at Zimplats in 2008, an opencast rehabilitation programme has been in progress since 2011. To date, 1 382 891m³ of waste rock material has been backfilled and the project reached 55% completion by year end. We aim to backfill all the voids with waste rock and re-establish indigenous grass and tree species by 2016 at a cost of US\$7.9 million.

At Refineries, the Aurora mineshaft has been decommissioned and closed. Rehabilitation obligations and closure of the shaft are being investigated with the DMR. A formal rehabilitation plan for the tailings dam is awaiting confirmation.

Biodiversity

Given the potential of mining activities to affect habitats through land disturbance, land-use change and pollution, basic biodiversity management is a requirement within all our operational ISO 14001 management systems. All operations have site-specific procedures and standards to manage the impacts associated with their activities. Formal biodiversity management plans, which incorporate the revised guidelines from the South African National Biodiversity Institute (SANBI) and Minister and Members of the Executive Council (MINMEC Biodiversity), are being implemented at both the Rustenburg and Marula operations.

A formal biodiversity monitoring programme was also implemented at the Rustenburg operations during the year. This is aimed at evaluating the current management approach and allow for adjustment where necessary.

Only Zimplats and Refineries operate within close proximity to areas of high biodiversity. The refining operation is near the Cowles dam that feeds into the Blesbokspruit, which is deemed an ecosystem under threat and appears on the Montreux record. Although Refineries is deemed to have no direct impact on this ecosystem, it is represented on the Blesbokspruit forum and is involved with environmental education and conservation at the Blesbokspruit Grootvlei Trust. In Zimbabwe, a total of 276ha of the Zimplats operation is located within the Ngezi National Park. This area, which was associated with historic opencast mining, has subsequently been rehabilitated and is thus deemed non-operational.