De Beers
A DIAMOND IS FOREVER

UN Global Compact
CEO WATER MANDATE

Communication on Progress

February 2012

Contents

De Beers Family of Companies

De Beers, established in 1888, is the world's leading diamond company with unrivalled expertise in the exploration, mining and marketing of diamonds. Together with its joint venture partners, De Beers mines for diamonds across Botswana, Namibia, South Africa and Canada. Around 16,000 people are employed in operations around the world. As part of the company's operating philosophy, the people of De Beers are committed to *Living up to Diamonds* by making a lasting contribution to the communities in which they live and work. In the countries in which we have mining operations, this means carrying out profitable business, while at the same time helping Governments achieve their aspirations of turning natural resources into shared national wealth. De Beers encourages sustainable working to ensure long-term positive development for Africa, and returns approximately $3 billion to the continent every year.

Statement of continued support for the UN Global Compact's CEO Water Mandate

De Beers signed up to the UNGC CEO Water Mandate in November 2009 and participated in the UNGC CEO Water Mandate Working Conferences in 2010 and 2011. This Communication on Progress is our second and this stand-alone report is to fulfill the requirements of the UN CEO Water Mandate Transparency Policy to feed back on our policy, standards and actions regarding water stewardship. The De Beers Family of Companies also produces an annual Report to Society which serves as the group's communication on progress for the UN Global Compact and provides additional information on water related issues. The Report to Society is disseminated internally and externally and available on the company website, **www.debeersgroup.com.**

Most of our mines are located in semi-arid, water stressed environments in Botswana, Namibia and South Africa. Water, a limited natural resource, is essential for the operation of our mines. It is therefore a priority for us to investigate alternative sources of water and to operate using water resources as efficiently and sustainably as possible to minimise the impact of our water use. We recognise the value of water as a shared resource and the need for sound stewardship of water for the sustainability of our mines and neighbouring communities, downstream users and ecosystems and ecosystem services. We acknowledge the interrelatedness between stewardship of energy, water, biodiversity, waste and the influence that climate change has on these, and in particular on water availability. The challenge lies in ensuring sustained equitable access to water of an appropriate quality for both our business and local communities. Through dialogue with governments, water users and other Water Mandate endorsers, we intend to grow our understanding of good water management policies and programmes on the journey toward better water stewardship within and beyond our operations.

We reaffirm De Beers continued support for the CEO Water Mandate and renew the company's commitment to the initiative and its six elements and hence to advancing practices in sustainable water management.

Further information on our water management practices can be found on our group website, **www.debeersgroup.com.**

Philippe Mellier
Chief Executive Officer
28 February 2012

The importance of water

"Water is not just an environmental issue – it is a poverty and development issue, an economic issue, and therefore a business issue."

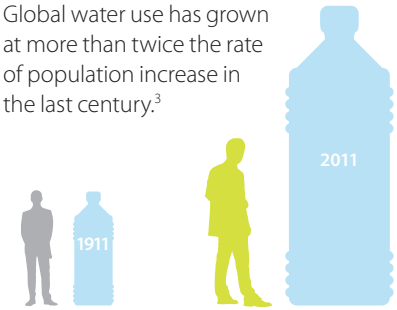
UN CEO Water Mandate[1]

Industry and the business community rely on water as an input, agriculture relies on it for production, communities and governments rely on it for health and sanitation. In the face of increasing water scarcity, effective water management will be a cornerstone of prosperous, resilient economies, able to deliver opportunity and sustainable livelihoods to more people. For businesses in water-stressed regions, adequate and reliable water supplies are already a critical operational risk.

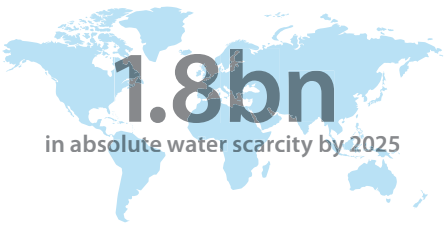
Water is an essential resource for De Beers. As the bulk of our operations take place in some of the world's most water-stressed regions, we are committed to significantly reducing our freshwater usage wherever we can, playing an active role in finding solutions to the effective governance and management of shared water resources, protecting the quality of the local and national water supply, and engaging positively with debates at a regional, national and global level.

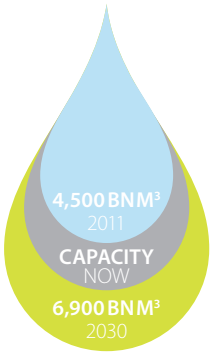
70% of the world's freshwater is used for irrigation, 22% for industry and 8% for domestic use.[2]

Global water use has grown at more than twice the rate of population increase in the last century.[3]



By 2025, it is estimated that 1.8 billion people will be living in absolute water scarcity, and two-thirds of the world population could be under water stress conditions.[4]





Based on current levels of demand, global water requirements are set to grow from 4,500 billion m^3 to 6,900 billion m^3 by 2030.[5] This is 40% above what is currently accessible.

WATER IN CRISIS

Water scarcity is a daily reality for millions of people around the world. Leaders from the public and private sectors have recognised the growing importance of water, as well as the mounting risks of scarcity:

Population

The world's growing population will increasingly require more agricultural and industrial inputs, which are likely to be water-intensive; individuals and other actors will need to use water effectively to increase agricultural output and ensure there is adequate water to provide for global health and sanitation.

Migration

Urban growth, particularly in the developing world, is set to increase dramatically in the coming decades. Growing cities in Africa and Asia will continue to face worsening water stresses, as urban water users require more energy and water, putting strain on weak infrastructure and delivery systems.

Climate change

The higher temperatures and extreme weather conditions anticipated by the UN and climate scientists are projected to affect availability and distribution of rainfall, snowmelt, river flows and groundwater, and further deteriorate water quality. The poor, who are the most vulnerable, are likely to be the most adversely affected.[6]

The challenge to deliver more prosperity to an expanding, urbanising global population, with less water in the face of climate risks is considerable. For water-intensive industries like mining, engaging with finding solutions to these challenges is an economic imperative and social responsibility as a corporate citizen. De Beers drives use of the mitigation hierarchy to first avoid and then minimise and mitigate impacts on water resources and quality, and then manage the residual impact. We do this in our own operations and through working in partnership with others.

[1] UN CEO Water Mandate, Letter from Business Leaders to the G-8. May, 2008. http://www.unglobalcompact.org/docs/issues_doc/Environment/ceo_water_mandate/G8_letter.pdf
[2] Estimate from the World Water Assessment Programme. [3] Food and Agriculture Organisation (FAO) and UN Water. [4] Africa Water Atlas. UNEP, 2010. [5] Charting Our Water Future 2e, 2030 Water Resources Group, 2010. [6] 'Climate change adaptation: the pivotal role of water.' UN Water, 2010.

Water challenges in our operating contexts

Around 95% of De Beers' rough diamond production comes from arid or semi-arid regions in southern Africa, where we face the challenge of operating a water-intensive industry in a water-stressed environment. In contrast, at our mines in Canada, the main water challenge is to protect the quality of water in the lakes and wetland areas and their associated aquatic biodiversity.

Securing water in water-stressed environments

Water links Africa's economic fortunes and climate change challenges. Arid lands cover about 60% of Africa which, with 15% of the global population, has only 9% of global renewable water resources.[7] In 2010, approximately 330 million people in Sub-Saharan Africa lacked access to safe drinking water.[8] The impacts of climate change will compound this further.

Africa is experiencing some robust economic growth, and consequently, the continent's demand for water will increase to support industrial and agricultural development. Long-sighted businesses in Africa are already engaging with the challenges posed by water scarcity and stress. In addition to securing water required for operations, businesses will increasingly need to engage on broader water challenges to maintain a social licence to operate, and support the generation and growth of dynamic markets.

Located in arid, water-stressed regions, our producer countries in Southern Africa depend heavily on the economic contributions of agriculture and mining, both of which are extremely water-intensive sectors. In Botswana, South Africa, and Namibia, agriculture accounts for a large proportion of the respective countries' formal and informal employment, whereas mining provides a significant percentage of GDP. In all three countries, the challenge for De Beers and the mining sector is to sustainably manage our water usage in order to maximise shared value and minimise the shared risks, thereby supporting the development aspirations of our producer partner governments.

Protecting water quality

In Canada, water scarcity is not a risk. Instead, De Beers faces an altogether different yet equally critical challenge. Water management strategies at De Beers Canada focus on eliminating and mitigating any negative impacts that our operations might have upon the northern water-abundant environment where we mine, and managing the removal and discharge of large quantities of excess water from our mines.

Botswana

Botswana is already classified as a water-stressed country. Experts from the Intergovernmental Panel on Climate Change have made stark predictions about Botswana: temperatures are set to rise by an average of 2°C by 2030 across the country while average rainfall is set to decline by up to 10-15% due to greenhouse gas emissions.[9] This will greatly impact the agricultural sector, which employs nearly 30% of the population.[10]

De Beers operates in Botswana in a 50-50 joint venture partnership with the Government of the Republic of Botswana, called Debswana. Diamonds, which make up 33% of Botswana's GDP, have played a key role in Botswana's transformation from one of Africa's poorest countries to a stable middle-income country since independence in 1966. Tellingly, roughly four out of every five dollars generated by the partnership is accrued as state revenues.

Namibia

Namibia is the driest country south of the Sahara Desert; it is predicted to reach absolute water scarcity by 2020.[11] Estimates in 2007 from the International Institute for Environment and Development put the country's loss of GDP to climate change at 6% per annum. Almost half of Namibia's population is involved in agriculture – a sector that accounts for over 70% of total water withdrawals in the country.[12]

Namdeb, our 50-50 joint venture with the Government of the Republic of Namibia, is the country's largest taxpayer and one of the largest private sector employers. Over the last 10 years the diamond sector has contributed about 30% of total GDP and 80% of total export earnings.

South Africa

South Africa's growing and industrialising economy is already putting pressure on its national water resources. Optimistic estimates predict that the country will face a gap between projected 2030 demand and current supply that amounts to 17% of demand. However, these figures do not account for increased agricultural demand for water and presume full legal compliance by all actors.

South Africa's economy is the most diverse in the region. The industrial sector, which includes water-intensive sub-sectors like mining, employs over 25% of the population.[13] It produces approximately 10% of the world's rough diamonds by value, which represents approximately 1% of the country's GDP. In South Africa, De Beers operates De Beers Consolidated Mines Limited (DBCM), in which Ponahalo Holdings, a Black Economic Empowerment company, has a 26% interest.

Canada

Canadians live in a country with a plentiful supply of fresh water. While the country's population represents just 0.5% of the global population, it has access to nearly 20% of the world's fresh water and 7% of the total renewable water flow.[14] Water defines the Canadian landscape from the Great Lakes, large rivers like the St. Lawrence in the east and the Mackenzie in the north-west, and thousands of other waterways in between. Nevertheless, easy access to safe, clean water is considered to be an important issue in Canada.

Canada's first producing diamond mines started in 1998 and by 2003 Canada had become the world's third largest diamond producer by value after Botswana and Russia. De Beers Canada Incorporated is wholly owned by De Beers and has two diamond mines that started producing in 2007 / 2008.

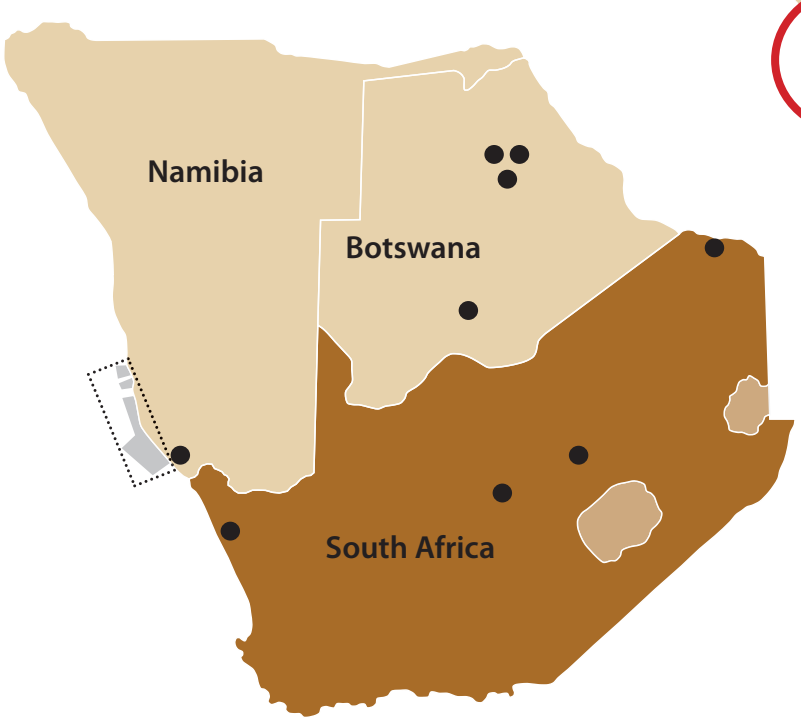
Operations in Africa

● De Beers Family of Companies land-based mining operations
⁝⁝ De Beers Family of Companies marine mining operations

Fresh water stress and security in Africa by 2025 [15]

Water scarcity in 2025 (less than 1 000m³/capita/year)
Water stress in 2025 (1 000m - 1 700m³/capita/year)

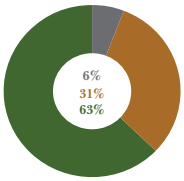
65%
of the African population is at risk of water stress by 2025, affecting 18 countries



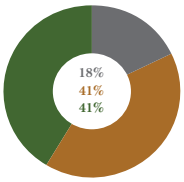
Water use by sector (%)

Industrial
Household
Agricultural

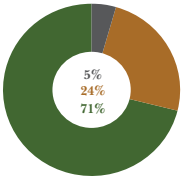
Botswana



Namibia

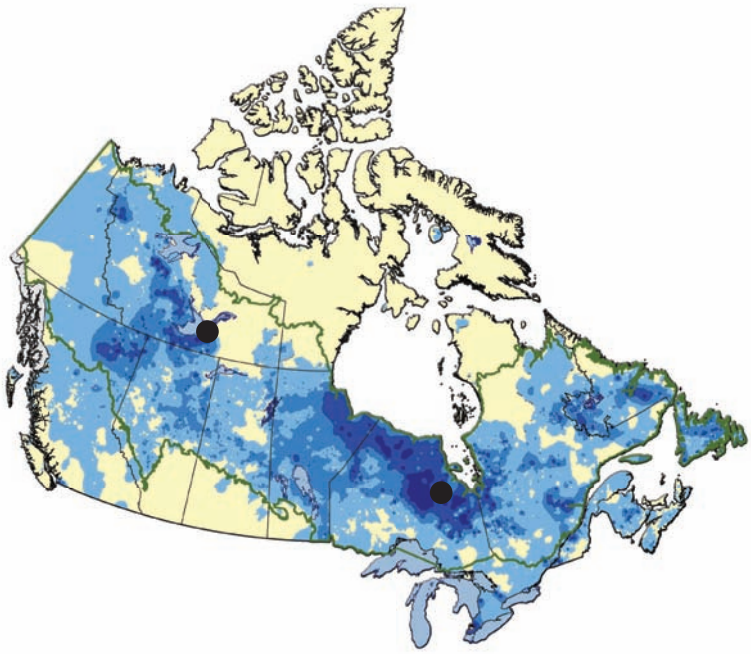


South Africa



Operations in Canada

● De Beers Family of Companies mining operations



Wetland cover [16]

<5%
5% - 25%
>25% - 50%
50% - 75%
75% - 100%
Canadian boreal boundary

14%
of the earth's wetlands are in Canada [17]

[7]Africa Water Atlas. UNEP, 2010. [8] UNICEF/WHO, 2010. [9] Lesolle, D. 'Climate Change and Paste – Perceptions, Challenges and Opportunities.' Paste 2008. Perth: Australian Centre for Geomechanics, 2008. [10] UN Data, 2005. [11] Reid, H.L., Sahlen, J. and Stage, J. MacGregor. 'The economic impact of climate change in Namibia: How climate change will affect the contribution of Namibia's natural resources to its economy.' Environmental Economics Programme Discussion Paper 07-02, 2007. International Institute for Environment and Development, London. [12] FAO 2008 [13] UN Data, 2007. [14] Environment Canada-water, www.ec.gc.ca, 2012. [15] 'Coping with water scarcity.' FAO, 2007. [16] Canadian wetlands, www.pewenvironmental.org, 2012. [17] Distribution of freshwater-wetlands, Natural Resources Canada, www.nrcan.gc.ca, 2012.

Environmental Policy and Standards

The De Beers Family of Companies Environmental Policy (2009) covers all aspects of environmental management, with water being an important aspect thereof. This policy commits all entities of the De Beers Family of Companies to:

- Managing all aspects of environmental policy as an integral part of business while adopting a precautionary approach to environmental challenges.
- Developing and implementing appropriate environmental policies, systems, programmes and training and ensuring these are adequately resourced.
- Requiring all mining operations to be certified compliant with the ISO 14001 international standard for environmental management systems as the foundation for continual improvement.
- Conducting all activities in compliance with applicable legislation and other environmental requirements to which De Beers has subscribed and being aligned with international good practice.
- Adopting the mitigation hierarchy approach by first assessing, seeking to avoid, minimizing and then mitigating potential environmental impacts, risks and emergencies when planning, designing and implementing exploration, mining, marketing and related activities.
- Aiming to have no net loss of biodiversity over the operating lifetime collectively for the Family of Companies by minimising the negative impacts through responsible planning and stewardship of biodiversity, from exploration through to the closure of operations and making a contribution to biodiversity conservation in the regions within which we operate.
- Respecting legally designated Protected Areas and key biodiversity areas and not operating within World Heritage Sites.
- Promoting the efficient and sustainable use of natural resources, especially energy and water, by employing the principles of reduction, recovery, re-use and recycling.
- Reducing greenhouse gas emissions and participating in climate change initiatives.
- Managing effluents, wastes, emissions, dust and the use of hazardous substances to prevent pollution.
- Ensuring comprehensive environmental planning and costing for operational and closure phases is undertaken and that the financial provision for present and expected future environmental liabilities and obligations is included in business plans and annual accounts.
- Fostering awareness across the organisation, communicating and building a culture of shared responsibility and accountability for the environment.
- Engaging and co-operating openly with governments, local communities, employees and other interested parties to improve understanding, promote constructive interaction and seek solutions to environmental and social issues.
- Influencing joint venture partnerships to follow practices consistent with this policy and ensuring that contractors do so.
- Regularly monitoring, auditing and reviewing environmental performance and compliance to ensure continual improvement, and
- Reporting environmental performance publicly and providing assurance to the Boards of Directors.

The De Beers Family of Companies operates according to six Environmental Outcome and Performance Standards that give effect to the Environmental Policy. These are standards for Lifecycle Planning, Water, Biodiversity, Climate Change, Waste and Pollution Prevention and Environmental Reporting. Water issues are pertinent to each of these and the stated desired outcomes for water are:

- No water used unless demonstrably required.
- 100% of Mining operations manage their water supply and demand to ensure demonstrable water efficiency and achieve water sustainability.
- 100% of operations follow the hierarchy to avoid, minimise and mitigate pollution on water resources.

Meeting commitments to the Water Mandate

Water is vital to our business and driving activities and outcomes related to the six key areas of commitment under the Water Mandate, and the overlaps between these, assists us to drive better performance and interaction on this essential resource.

Direct operations

Water in the mining lifecycle

Water management and sustainability is included in business decision-making across the lifecycle of the operations, from exploration activities through to project planning, mining operations, and closure planning and execution. The aim is to first avoid an impact on water resources and / or quality, and if not possible then to minimise, mitigate and finally appropriately manage the aspect. In both the water scarce areas of southern Africa and the water abundant areas of Canada, the quantity of water withdrawn from water sources is assessed to ensure protection of water resources and associated biodiversity. Within exploration activities, water availability and quality is included in the social and environmental baseline assessments that are conducted during exploration. Water sampling around established field camps is conducted to determine whether the water is suitable for use in the camp and to monitor whether the camp activities may impact on the groundwater.

Water issues are considered and integrated into project planning. Baseline information of the surface water and groundwater regimes, the location of existing water sources and meteorological data is collected and used during planning. Alternative water supplies and sources (e.g. sea water, brackish, saline groundwater) are considered. Mine designs and plans promote water efficiency and sustainability by taking into account potential effects on water resources and are developed to promote minimal consumption, recycling and least possible discharges. Water recovered from all open pit dewatering systems in southern Africa is re-used in ore treatment. Trade-offs between energy and water consumption form part of decision-making process. Climate change scenarios and other water issues are considered as these may impact on water security, quality, cost and regional water sustainability. Careful consideration is given to not creating dependencies in terms of water provision to other users because this may make withdrawal from the area during closure of the operation problematic.

All active mining operations and other key facilities run Environmental Management Systems that are certified to the international standard, ISO14001:2004. This means that environmental management is integrated into the operations and hence assessments and management plans with regard to all environmental aspects, including water, are done for the operations. Water awareness is also raised though the ISO14001 management systems, in corporate communications and through local projects that demonstrate this to employees. The mining operations develop, regularly review and update integrated water management plans. Water efficiency targets are set in southern Africa and reviewed to track progress in order to ensure continual improvement. Sampling, monitoring, tracking and evaluating both quality and quantity of surface water, groundwater and process discharge water is ongoing, throughout the life of the mine. Alien plant removal programmes on the properties and restoration of the natural vegetation positively influences water conservation. Specific Mine Water Steering Committees or equivalent committees that address water management, ensure the alignment of the water strategies with best practices and legislation in addition to providing leadership on water conservation and demand management. During closure of operations, all aspects that could pollute water resources are removed or rehabilitated. Water monitoring continues until closure is obtained, or as required by the regulatory authority having jurisdiction.

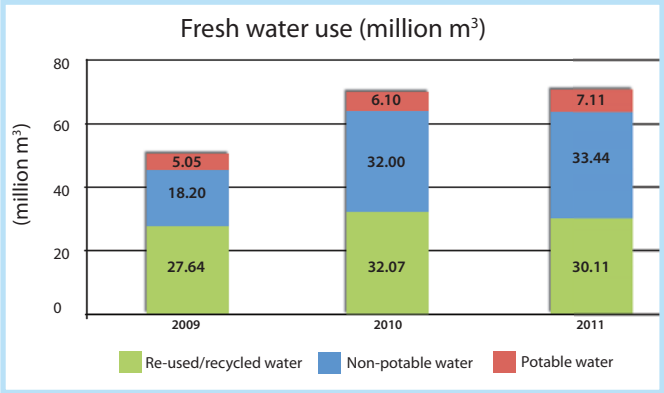
Water-related reporting

The De Beers Family of Companies has a group-wide environmental reporting system whereby monthly water consumption is recorded into a central database by all exploration and mining operations and other facilities across countries of operation. This data is reported in the following categories, consolidated and externally reported on an annual basis:

- Natural potable water,
- Treated potable water,
- Non-potable water excluding re-used / recycled water,
- Re-used / recycled water,
- Water from dewatering processes not used on the operation,
- Seawater purified for use, and
- Seawater to land.

This reporting has been ongoing since 2004 with increasing levels of completeness and accuracy to assist with determining the water footprint by operation, country and globally. Water consumption is contextualized by the locations with the broad difference being between the northern hemisphere mines where water is abundant versus the southern hemisphere mines in Africa where water is scarce.

In 2011 we used 40.6 million m^3 of new (potable and non-potable) water across all of our operations/facilities. The use of recycled process water at our southern African mines which are in arid areas is approximately half of the total fresh water use on the operations (46%). We also used 16.6 million m^3 of sea water at our coastal mining operation in Namibia.



During 2010, a new Incident Reporting System was introduced within the De Beers Family of Companies to record environmental incidents into categories for both Severity and Type. Two of these incident types are Pollution and Resource wastage. With regard to water, this reporting has assisted in better analysis and corrective action of incidents related to water resource use / wastage and to pollution incident affecting water sources.

The De Beers Family of Companies reports on water publicly on an annual basis in our Report to Society which is aligned to the Global Reporting Initiative G3 Guidelines.

Water targets

The De Beers Family of Companies Water Standard requires all mining operations to set targets and this may take different forms depending on the type of operation and material being treated for example, m^3 per ton of plant headfeed. Many water efficiency measures have been incorporated and there are ongoing efforts to reduce water usage against targets. Examples are given below:

- Debswana has both the largest production (approximately three-quarters of group diamond production) and a water footprint of approximately half of the total new water usage within the De Beers Family of Companies. Through ambitious target setting in 2003, Debswana reduced water by 33% by 2008. This reduction targeted all of the major areas for reduction and was largely as a result of improved fine processed kimberlite recycling and thickening, increased use of rainfall and storm water runoff, and reduced wastage. In March 2012, Debswana, along with other stakeholders from the Botswana water sector, will review its Group Water Strategy and individual operations will be accountable for setting new site-specific water reduction targets.

- De Beers Consolidated Mines with almost a fifth of the group diamond production and almost a third of new water usage has set a water reduction target of 15% (through efficiency improvement) by 2015 using a 2007 base year. At Voorspoed Mine, the operation continues to operate a largely closed water circuit, reusing most of its treatment process water from on-site dams.

Use of alternative water sources and re-use of water

The mines on the west coast of southern Africa use seawater for treatment of ore because freshwater is a scarce resource in these areas. At all operations, significant steps have been taken to increase the use of reused/recycled water which typically account for almost half of the total freshwater consumption. A variety of projects have been introduced that incorporate alternative water uses, re-use water or reduce water consumption and raise awareness of water sustainability. Some examples are:

- The introduction of a rainfall harvesting system that captures runoff from Orapa town in Botswana paved surfaces into a one million cubic metre storm water dam at Orapa Mine in Botswana demonstrated significant water and costs savings. The project showed a two year payback on the implementation cost of BWP 58 million. This was cited as excellent example of rainfall harvesting in the National Scoping Report of the Integrated Water Resources Management Program, produced by the Government of the Republic of Botswana in 2010.

- At Orapa, all sewage effluent is re-used as treatment process water.

- At Namdeb, effluent from the one section of the treatment process was diverted for re-use to another section before being sent to the fine processed kimberlite dam. Ponds and a penstocks system were introduced to enable recycling of clean water back to the treatment plant. This reduced direct abstraction from the river by 70%.

- Kimberley Mines uses approximately 10% potable water in its treatment process, the balance being made up of dewatering water (obtained from a neighbouring mining operation), and treated effluent water from the Sol Plaatje Municipality.

- At both Canadian operations, mine dewatering requires that large quantities of water are managed as well as associated dissolved contaminants and suspended solid materials. Water volumes withdrawn for processing ore and potable uses is very small relative to mine water flows. Water used in processing is recycled. The mines have comprehensive programs in place for monitoring and reporting changes in water chemistry and aquatic (biological) effects. Biological effects monitored include impacts on fish, their habitat and the food web within the rivers or lakes. If trends are detected that indicate the mine will operate outside the "effects envelope" approved during the environmental assessment or water licence limits we are required to apply the principles of adaptive management.

- At the Group Exploration Macrodiamond Laboratory and the Indicator Mineral Laboratory, water is re-used. Depending on the samples being treated, the facility can operate from one month to three months without having to add new water.

- Offshore vessels use seawater in the treatment process and onboard domestic freshwater requirements are obtained from desalination plants. This does not always meet the demand so additional water is transported by tug from the closest coastal town, Port Nolloth, which is in a water scarce region of South Africa. To limit water use from the town, water targets to drive efficiencies in onboard water-making to minimise delivery of freshwater from Port Nolloth. Some vessels in the fleet are now self-sufficient with regards freshwater and do not draw any supplies from Port Nolloth.

- At the Diamond Trading Company and Debswana Technical Support Center in Botswana, rainwater harvesting is used for gardens and ablutions.
- Our Gaborone accommodation for Botswana exploration teams uses treated sewage water received from the Botswana Water Utilities Corporation on the gardens.
- The London offices have introduced dry urinals with sensors to trigger water flow.
- Dry landscaping has been introduced around offices at various mines.

In Botswana, alternative water sources are being investigated in the Boteti Area 45km northwest of Orapa. This has so far involved initial investigations into use of poorer quality water, the hypersaline groundwater. This water resource easily meets the water demand for the life of the Orapa cluster of mines. In addition, there is no competition for this resource with other users. A technical desalination solution is still needed and thermal desalination is being investigated. A 2012 study is proposed to examine the viability of desalinating this resource sufficiently for process use, potentially blended with fresh water. The by-products of the desalination process e.g. salt may be possible to use, will also be investigated for potential use. This will go through a full Environmental and Social Impact Assessment process and stakeholder consultation to ensure the full implications are assessed.

Protection of aquatic habitats

In Canada, where we have mines in the Northwest Territories and in Ontario, any impacts must be compensated such that there is no net loss of fish habitat:

- At Snap Lake we created an artificial reef to compensate for fish habitat disrupted during the construction of the pipelines installed in the lake for withdrawing and discharging water.
- At Victor we were required to supplement flow to a nearby South Granny Creek and the Nayshkootayaow River to compensate for the effect of mine pit dewatering. An established flow has to be maintained, to address possible impacts resulting from potential flow reductions and water quality changes from mine dewatering, habitat protection requirements are in place for both South Granny Creek and the Nayshkootayaow River into which it flows. These require flow supplementation to maintain specific flow levels by season so that there is no disruption of stream or river flow and the associated aquatic biodiversity.

Victor Mine is located within the Hudson Bay Lowland, a huge peatland (320,000 km^2) covering 3.5% of the country. It is the largest wetland complex in Canada and the second largest wetland worldwide. Given the mine's location in this peatland, there is a significant focus on water aspects. Mercury occurs naturally in the underlying peat in the muskeg and a potential impact relates to pit watering perhaps causing increased rates of mercury release from the muskeg and the effect of that on the ecology. A research team, the "Muskeg Crew" from a consortium of universities - Waterloo, Western, Queens, and Carleton - drives the 5-year Muskeg Research Program that is now in its 4th year which aims to:

- evaluate the regional connectivity between upper and lower aquifer systems through the clay and bioherm (rock outcrop) formations in the project area,
- quantify changes to the peatland hydrology caused by dewatering of the regional aquifer due to mining of the Victor Pit, and
- evaluate mercury mechanisms in the peatland.

Over the 5-year period, this research programme is funded jointly by the mine and government.

Victor pit and diverted stream in foreground

In addition, a broad-based mercury monitoring programme includes peat sampling, surface water sampling, groundwater (well field) sampling and fish sampling (large and small bodied fish) across a range of sites. Noting that mercury also occurs naturally in fish, this monitoring programme is to determine if changes in mercury levels occur over time. There are various mitigation measures available if this becomes evident.

At the Victor mine, located in a sub-Arctic muskeg wetland, streams that may be affected by dewatering of the mine pit are actively supplemented with additional water to maintain critical base flows and thus protect fishery resources.

An example of adaptive mine design occurred at Voorspoed mine where the mine infrastructure layout was designed to avoid a degraded wetland. Natural flow to this wetland was re-established and alien invasive plants removed and the natural water system and native biodiversity has returned.

The Paardebergvlei wetland immediately adjacent to Kimberley Mines, and historically impacted by mining activities, is currently subject to extensive sedimentation and toxicological investigations. The objective is to restore the ecological function of the wetland and optimize the ecosystem service capability of the wetland. To this end, the mine water quality monitoring programme has been extended to include this area, and management measures implemented to prevent any mine water reaching the Paardebergvlei.

In 2011, De Beers Angola Prospecting provided significant support for a scientific expedition regarding the creation of a new 200 000 hectare protected area at Lagoa Carumbo that includes rivers and riverine habitat. This included fish surveys and new species of fish and frogs, either new to science or new records for Angola, were discovered.

Furthering research on water

The Diamond Route is an award-winning, cross-provincial, multi-site initiative that covers nine sites of biodiversity and heritage interest across southern Africa (www.diamondroute.co.za). This is currently being expanded to include and facilitate research across the Family of Companies. As a partnership between De Beers, E Oppenheimer & Son and Ponahalo Holdings, it aims to promote local economic development through tourism and education and promote biodiversity through active conservation and vital scientific research. To date the Diamond Route has created over 260 permanent jobs and supports over 140 research projects. In 2010/11, the Diamond Route won four awards - 'sustainability role model in a category of its own' from the Nedbank Capital Green Mining Award; the 'contribution to conservation award' from South Africa National Parks; the Enviropaedia 'Biodiversity' award; and a Bronze in the 'Best Green Conservation and Biodiversity Award' in the UK-based International Green Awards. An annual Diamond Route Research Conference is held and attended by over a hundred delegates and delivering oral presentations and poster presentations by researchers from over sixty national and international institutions. Amongst the research presented were two water research projects that are underway:

- Groundwater-Surface Water Interactions in Catchments of the Hudson Bay Lowlands - University of Western Ontario.
- Investigations of changes in water quality, fish and invertebrate assemblages of the aquatic ecosystems associated with Wilge River system on Ezemvelo Nature Reserve - University of the Witwatersrand.

Secretary Bird at Tswalu, on the Diamond Route, South Africa

Technology advances on water use

New technologies to investigate alternative water uses and improve water efficiency have been investigated for the mines and include:

- The amendment of ore treatment processes to enable the use of saline water.
- Reduced groundwater use due to the installation of facilities for the capturing of storm water from urban areas.
- Electro-kinetic dewatering, which uses electric fields to extract the last remnants of water from thickened fine processed kimberlite was fully investigated but not progressed due to efficiency and cost considerations.
- Conventional thickeners are to be replaced with high-rate thickeners to achieve water recoveries of over 90%.
- At Kimberley Mines, a system of paste and thickened fine processed kimberlite has reduced water consumption considerably and have been reported on and presented at various international conferences.
- At our Group Exploration Kimberley Microdiamond Laboratory a VSEP (Vibratory Shear Enhanced Process) Plant is being installed. This reverse osmosis filtration system will minimise the amount of liquid waste generated and allow for re-use of water in the process. A reduction of 50% fresh process water is expected.

Climate change and water planning

Climate change risks are most likely to manifest themselves in water scarcity, extreme weather events and rising temperatures in the vicinity of the operations. With 95% of the De Beers Family of Companies rough diamond production originating from arid regions across southern Africa, a reduction in rainfall and consequent drop in regional water availability has to be factored into planning for sustainable production from the mines.

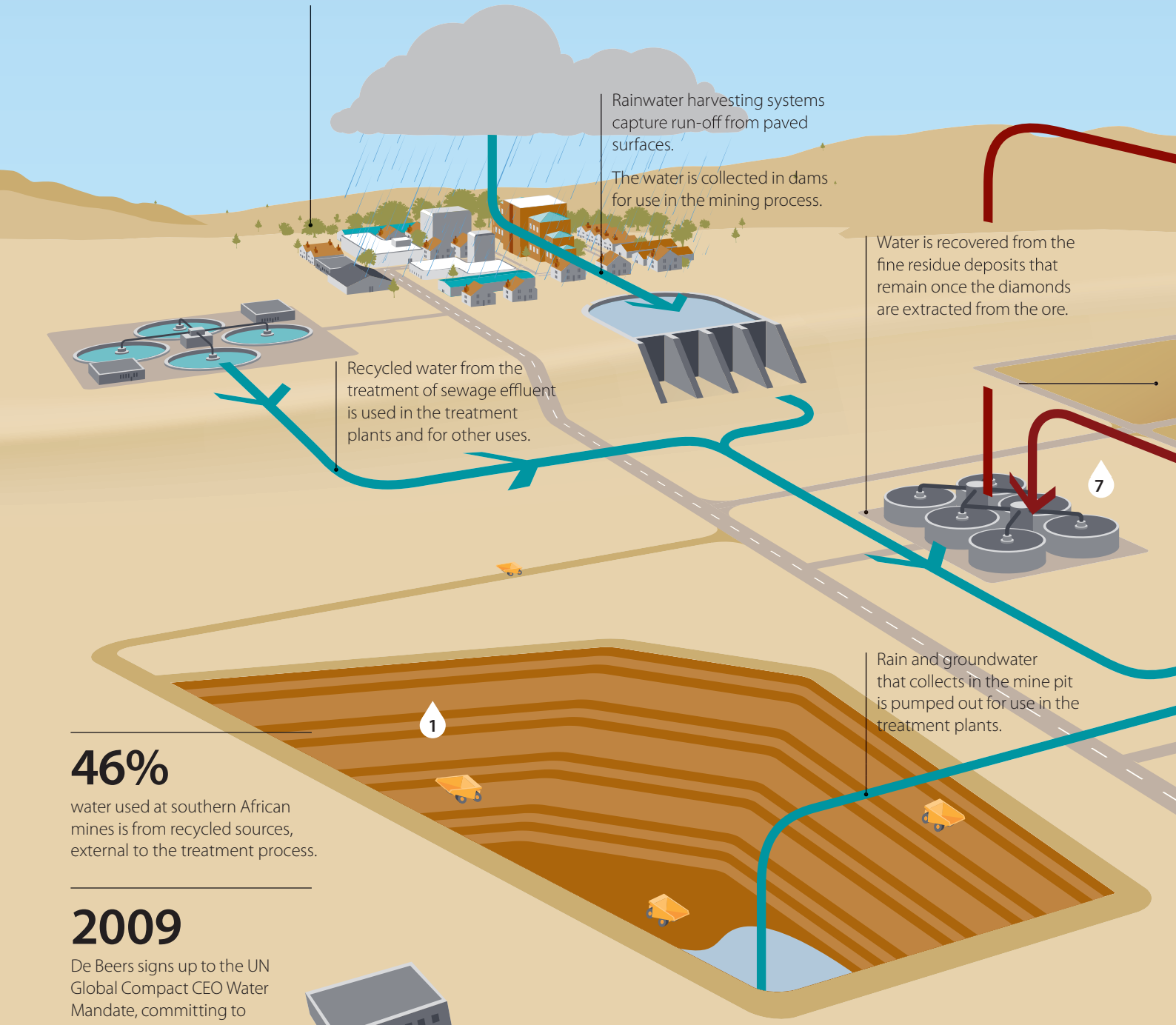
We continue to take part in climate change initiatives because we recognise that climate change impacts on our business specifically with regard to water aspects. Along with other international corporate leaders, the De Beers CEO, Philippe Mellier signed up to the 2°C Challenge Communiqué that was presented to the UN at the 17th Conference of the Parties meeting (COP17) held in Durban, South Africa in December 2011. De Beers was an active participant at the parallel business events with a stand featuring the Diamond Route and involvement in three research projects regarding climate change. These include predicting desert bird responses to climate change, adaptation by desert black rhino and the effect of temperature change on antelope. DBCM CEO, Philip Barton took part in a Business4Environment event on South African CEO perspectives on climate change.

In Canada, the most immediate operational threat related to climate change is the very real risk posed to the establishment of the several hundred kilometers of ice roads which each mine depends on for the annual delivery of fuel, equipment and supplies. The rate of global warming is most pronounced in these Arctic and sub-Arctic regions.

Lesser Flamingos at Benfontein, on the Diamond Route near Kimberley, South Africa

Managing our water use

Water is essential for our mining and processing operations. Water reduction strategies, re-use and recycling methodologies and the development of alternative sources are critical to our ability to use this resource efficiently.



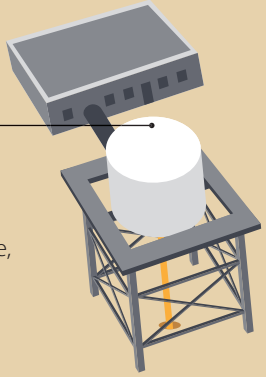
46%

water used at southern African mines is from recycled sources, external to the treatment process.

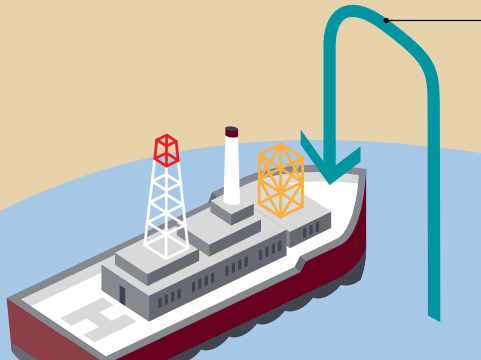
2009

De Beers signs up to the UN Global Compact CEO Water Mandate, committing to responsible water stewardship.

Traditionally, water used in mining processes comes from 'new' sources; groundwater aquifers or rivers. Where possible, we use non-potable sources, such as saline water and other alternative sources.



Vertical boreholes are also sunk around the pit. These extract water, helping to keep the pit slopes stable and safe, and control water seepage.



Alternative sources
We seek alternative water sources, rather than relying on freshwater sources like rivers or boreholes.

Reducing and recycling
We aim to improve water efficiency and re-use, or recycle water as much as possible.

Protecting and improving water quality
We ensure that the water we discharge is of the same or better quality than it was originally.

HOW WE USE WATER

At our mines, water is mainly used in the processing of kimberlite – the diamond-bearing ore.

1 **Mining**
Blasting, waste removal and ore extraction
Water is used in the pit to dampen dust created by mining activities to extract the kimberlite ore. This aids visibility and reduces risks to health.

2 **Processing**
Crushing
In the first stage of processing, the kimberlite is crushed to the best size for extracting diamonds. Water is not used here, except for dust containment.

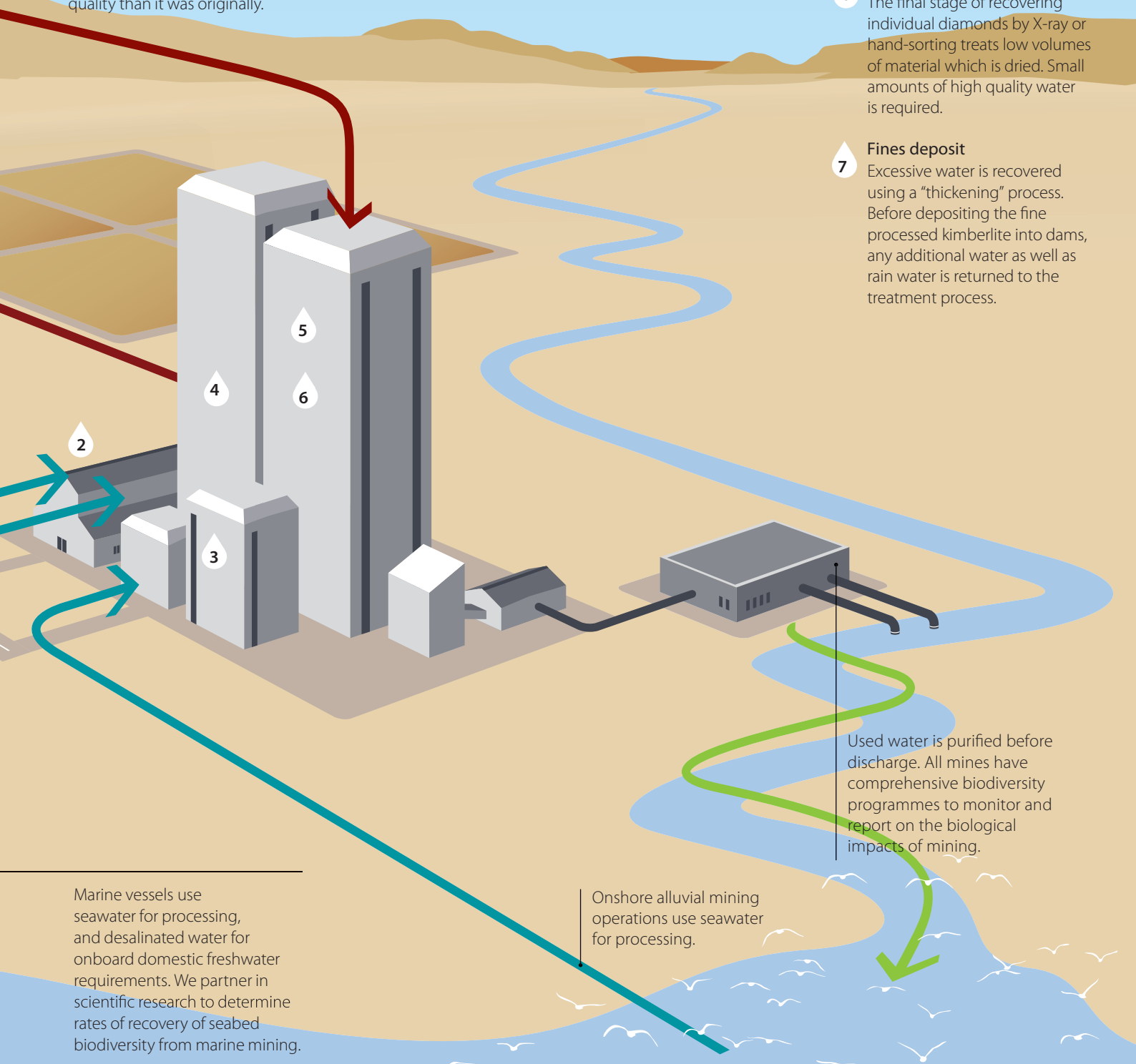
3 **Scrubbing/washing**
Scrubbers 'wash' the crushed ore in preparation for sizing. Saltwater, or water recovered from the pit sump or other sources may be used.

4 **Screening**
The diamond-rich material is recovered. Small pieces pass straight through, while larger pieces go through another round of crushing, scrubbing and screening.

5 **Separation**
The screened and washed material is fed to dense media separator cyclones to separate out the diamonds. Water recovered from this process.

6 **Recovery**
The final stage of recovering individual diamonds by X-ray or hand-sorting treats low volumes of material which is dried. Small amounts of high quality water is required.

7 **Fines deposit**
Excessive water is recovered using a "thickening" process. Before depositing the fine processed kimberlite into dams, any additional water as well as rain water is returned to the treatment process.



Used water is purified before discharge. All mines have comprehensive biodiversity programmes to monitor and report on the biological impacts of mining.

Onshore alluvial mining operations use seawater for processing.

Marine vessels use seawater for processing, and desalinated water for onboard domestic freshwater requirements. We partner in scientific research to determine rates of recovery of seabed biodiversity from marine mining.

Supply chain and watershed management

"Private sector involvement is crucial to protecting South Africa's resources. We work in collaboration with key businesses like De Beers, who are ready to provide leadership to harness private sector engagement to better manage and protect our water resources."

Dr Mao Amis, WWF-South Africa

In order to continue to build ties with civil society organizations and at the same time build capacity to analyze and respond to watershed risk, De Beers is collaborating on a catchment management project with the Worldwide Fund for Nature-South Africa (WWF), a key international player on water from civil society. The Limpopo river basin is one of Southern Africa's cross boundary river basins and straddles four countries. The basin is a source of water for a population of more than 14 million people. The water management challenges in the basin pose a major risk to all stakeholders, including businesses dependent on water from the basin for their operations. In the late 1980's when De Beers Consolidated Mines primary mine in South Africa, Venetia, was planned and developed, great emphasis was placed on minimising the impact on the source of water. Continuing this approach to water stewardship, over and above the mine water management programme, in 2010 De Beers entered into an agreement with WWF to understand:

- the Venetia operation within a broader and dynamic socio-ecological landscape as it pertains to water risks,
- how the operation and other user needs in the priority catchments are potentially at risk in a changing world, and
- the responses required in terms of strategic and collaborative investments to reduce the shared risk and improve the resilience on water security.

In October 2011, hosted a successful multi-stakeholder workshop, which included key representatives from the Department of Water Affairs, South African National Parks, Peace Parks Foundation, the Council for Scientific and Industrial Research and De Beers to discuss regional water issues and the progression of the project from the situational analysis to the next phase, a risk assessment and response strategy for the Limpopo basin. Some key issues were raised for which action is now planned and includes:

- Data availability and quality,
- Lack of effective communication and engagement between stakeholders,
- Holistic approach to addressing the water challenges,
- Impact of water abstraction on groundwater resources and riverine forest,
- Challenges of working in transboundary catchments,
- Inadequate institutional arrangements , and
- Reputational aspects.

An action plan is being put in place to address these issues and includes establishing a link with the GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) on regional work, setting up of an active water forum and liaising with Limpopo Watercourse Commission (LIMCOM).

Checking a water sample at Venetia Mine

Collective action

"The implementation of [progressive and innovative freshwater and marine] legislation has proved challenging and simply cannot be successfully implemented by government working alone. Only a cohesive and concerted effort from government, the private sector and civil society will ensure success."

WWF-South Africa

GLOBAL

Fulfilling our responsibility to making a meaningful contribution to the global debate on water and climate change

De Beers is actively involved in the United Kingdom UN Global Compact Network with membership and regular participation in the network's Steering Group. In 2009 De Beers hosted a UK UNGC Network meeting at the London offices, and in November 2010 and 2011 De Beers actively participated in the UN CEO Water Mandate Working Conferences held in South Africa and Denmark, respectively.

De Beers is a member of the Responsible Jewelry Council and contributed to the formulation of its principles and codes of practice. Within these is a commitment to the efficient use of natural resources including water and requirements around tailings disposal.

INDUSTRY

Improving knowledge sharing and partnering on research into new technologies and practices

In Canada, as a member of the Mining Association of Canada, De Beers Canada is involved in the Towards Sustainable Mining Initiative that sets out commitments to address all areas of the mining industry's performance developed by the industry, in consultation with its communities of interest. One of the areas of focus is on effective tailings management which is an essential part of the broader water management programme. In 2011, Victor Mine was awarded a Towards Sustainable Mining Leadership Award by the Mining Association of Canada for its tailings management performance.

REGIONAL/NATIONAL

Collaborating with national governments and regional initiatives on policy and working to enhance capacity in the sector

Debswana continues to work with the Government of the Republic of Botswana and the United Nations Development Programme to promote long-term, integrated water resource planning throughout Botswana. This ongoing collaboration is intended to produce a new Integrated Water Resources Management Plan for the country. Debswana is also involved in the Standards Team of the Botswana Bureau of Standards in the development of National Water Quality Technical Standards including for Drinking Water, Bottled (natural and other) Drinking Water, Livestock Drinking Water and Irrigation Water.

Namdeb is involved in various bodies for the management of the Orange River, an international river that forms the southern border of the mining licence areas. This includes being part of the Orange River Mouth Interim Management Committee (ORMIMC) and participating in the Orange River Basin Stakeholder Forum. The Orange River is the only perennial river in the region and thus supports a great variety of plants. Waterbird counts (conducted twice a year) indicate that during the summer this wetland is the sixth richest wetland in southern Africa in terms of the overall number of birds supported. Strict access to the Orange River Mouth has served to protect the area quite well, resulting in a bona fide conservation area. The site is in a transboundary location and has been included in the proclamation of the Sperrgebiet National Park on the Namibian side, as well as being listed as a Ramsar site. Great care is taken to avoid impacts on this unique ecosystem, and research in this area is supported and facilitated by Namdeb. Namdeb has been identified as a stakeholder on the Orange-Senqu River Commission and provides input to and logistical support for research initiatives.

COMMUNITY

Ensuring that the communities in which we operate benefit from our presence

A successful public-private partnership exists between De Beers Canada and the Ontario Ministry of Environment. This is to further climate change-related research in the peatland area that is a large carbon sink, where our Victor mine is situated. Two research sites in the remote location at Victor Mine are their flagship sites in the Hudson Bay Lowlands with Victor acting as a base from which the research is done.

Kimberley Mines Central Tailings Plant

Public Policy

In 2011, an exercise was undertaken to develop a high-level water stakeholder map for each country of operation. This is a living document with the key stakeholders, their contact details and area of interest to be used for communication purposes.

During 2011, De Beers held a Diamond Dialogue in London, which is an independently facilitated roundtable discussion, on the subject of sustainable water use in a changing climate. The event was moderated by a representative from Business Action for Africa and there were a number of participants from De Beers, International Business Leaders Forum, Institute of Human Rights and Business, Foreign and Commonwealth Office, Fauna & Flora International, Worldwide Fund for Nature, WaterAid, Kings College and ArcelorMittal. For this, we produced a Diamond Dialogues Issue Brief on the company's approach to water management. Amongst the aspects discussed were water and sustainable development, water risk and addressing the issue of creation of dependencies by communities of water sources around mines.

The De Beers Managing Director participated in the United Nations Leadership Forum on Climate Change in New York in September 2009 along with representatives of Governments, Business, Civil Society and the United Nations. He addressed the Water Security Session because of the crucial nature of water to both the business and need for all to play a role in water sustainability.

De Beers Consolidated Mines is actively involved in the South African Chamber of Mines through their Environmental Policy Committee in which water issues are discussed and contributions made to national water policy, legislative changes, stakeholder management and the sharing of best practices. The mines also participate in regional government structures through the water catchment management agencies in their regions.

In Botswana, environmental personnel from Debswana have played a leading role in developing the capacity of the Botswana Chamber of Mines to engage both regulatory authorities and other civil society entities on environmental issues, including water management planning at the national level. In this way water related information is also readily disseminated to all mines in the country.

In Namibia, Namdeb actively participates and contributes to the setting of overall water frameworks, monitoring requirements and development through regional, national and international fora such as the Orange-Fish River Basin Stakeholder Forum. Namdeb influences public policy formulation and implementation and enhances local capacity building by sharing knowledge on water related issues.

Community Engagement

The water impacts and opportunities for communities in the vicinity of the operations are understood through the Environmental and Social Impact Assessments, Environment Management Systems and ongoing stakeholder engagement.

Where appropriate, the operations work with local governments on the development of adequate water infrastructure. For example:

- A number of community-related initiatives have taken place in Namaqualand region in the Northern Cape of South Africa where there are many socio-economic challenges. Jointly with government, Namaqualand mines built a water pipeline to supply Komaggas with water from the Buffels River. The Koingnaas Mine infrastructure is used to provide water to the Hondeklip Bay community. A central reverse osmosis water filtration plant is being installed at Koingnaas to give residents Class 1 water quality as opposed to the Class 2 water, dispensed from a central point. The extraction of water from the aquifer is monitored to ensure that utilization of this resource is sustainable. As part of proclamation of two mine towns in the Namaqualand mines area, Kleinzee and Koingnaas, the company is installing pre-paid water meters into each dwelling, working closely with the Nama Khoi and Kamiesberg Municipalities in this regard. This will most certainly lead to water conservation and prevent the non-payment for water.

- Debswana water management and monitoring includes all surrounding areas to assess potential impact on other users. All water rights are linked to compensation agreements with other private users in the general areas and the impact has been carefully monitored managed and only small compensation has been required to be actioned to date to other users over the last 30 years of water abstraction.

- Assisted by its academic research partners, the Victor mine in Canada has engaged local aboriginal communities to help them understand the long-standing issue of naturally elevated mercury in top-level predatory fish (pike and walleye) which are significant sources of food for community members.

- As part of a series of programmes to monitor the effect of mining on biodiversity at Snap lake Mine in Canada, annual fish tasting events are held with elders from local First Nations Communities to incorporate aboriginal communities in protecting the health of the lake.

- In Angola, as part of our exploration activities, a water borehole was drilled for a local community and fitted.

In partnership with local stakeholders, the mines are involved in water education and awareness initiatives beyond just employees. Some examples are:

- Debswana has added the topic of water conservation to the syllabus at the mine primary schools and these schools regularly take part in World Water Day celebrations.

- At Voorspoed Mine, employees and their families joined in an initiative to clean up the area of the Vals River, in Kroonstad, the labour-sending area for the mine.

- Voorspoed Mine, which has been designed around a sensitive wetland environment, raised awareness amongst its employees, around the importance of wetland conservation, and the significance of wetlands in water management.

- Kimberley Mines celebrated World Wetlands day in February 2012 with the assistance of the Ramsar Secretariat (providing posters, stickers and design templates) and launched a competition related to the theme "Wetlands in Tourism" where the first prize included a weekend break at Rooifontein farm, where the Paardebergvlei is situated.

- Namdeb provides water conservation education to the local school during an annual team building excursion for various grades to the Orange River mouth. The school also takes part in Namdeb's World Water Day celebrations. Various water conservation projects by the pupils of the local school during the annual Science Fair.

Transparency

This annual Communication on Progress is produced in line with the Transparency Policy of the UN Global Compact CEO Water Mandate. The annual De Beers Group Report to Society (www.debeersgroup.com) follows the Global Reporting Initiative's G3 Guidelines and includes communication on water management and relevant water performance indicators.

Venetia Mine fine processed kimberlite dam

Jwaneng Mine environs

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