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De Beers Family of Companies

Water Engagement

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UN CEO Water Mandate Working Conference
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De Beers Context

- Key mines in developing countries in southern Africa in semi-arid, water stressed areas
- Water is essential for our mines to operate

- Many water efficiencies measures have been incorporated
- Ongoing efforts to reduce water usage against targets.
- Botswana: Achieved a 33% reduction in raw water usage per ton ore treated from 2003 to 2008
- Research and development into water saving technologies e.g. Conventional thickeners have been replaced with high-rate thickeners - achieve water recoveries of over 90%.
- 43% of total water used is recycled.

Business case for engagement

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- Water, as a shared resource, is essential for sustainability of mines AND neighbouring communities.
- Water is a limited resource and likely to be negatively impacted by various factors including climate change.
- Water is a business risk – operational, financial and reputational. May impact on our licence to operate
- Engagement is therefore essential with a variety of levels of government and other users
- De Beers supports an ongoing corporate-government dialogue on water stewardship
- De Beers partners with a wide range of organisations (govt agencies, NGOs, Universities), mainly related to biodiversity.

Case Study – Venetia Mine

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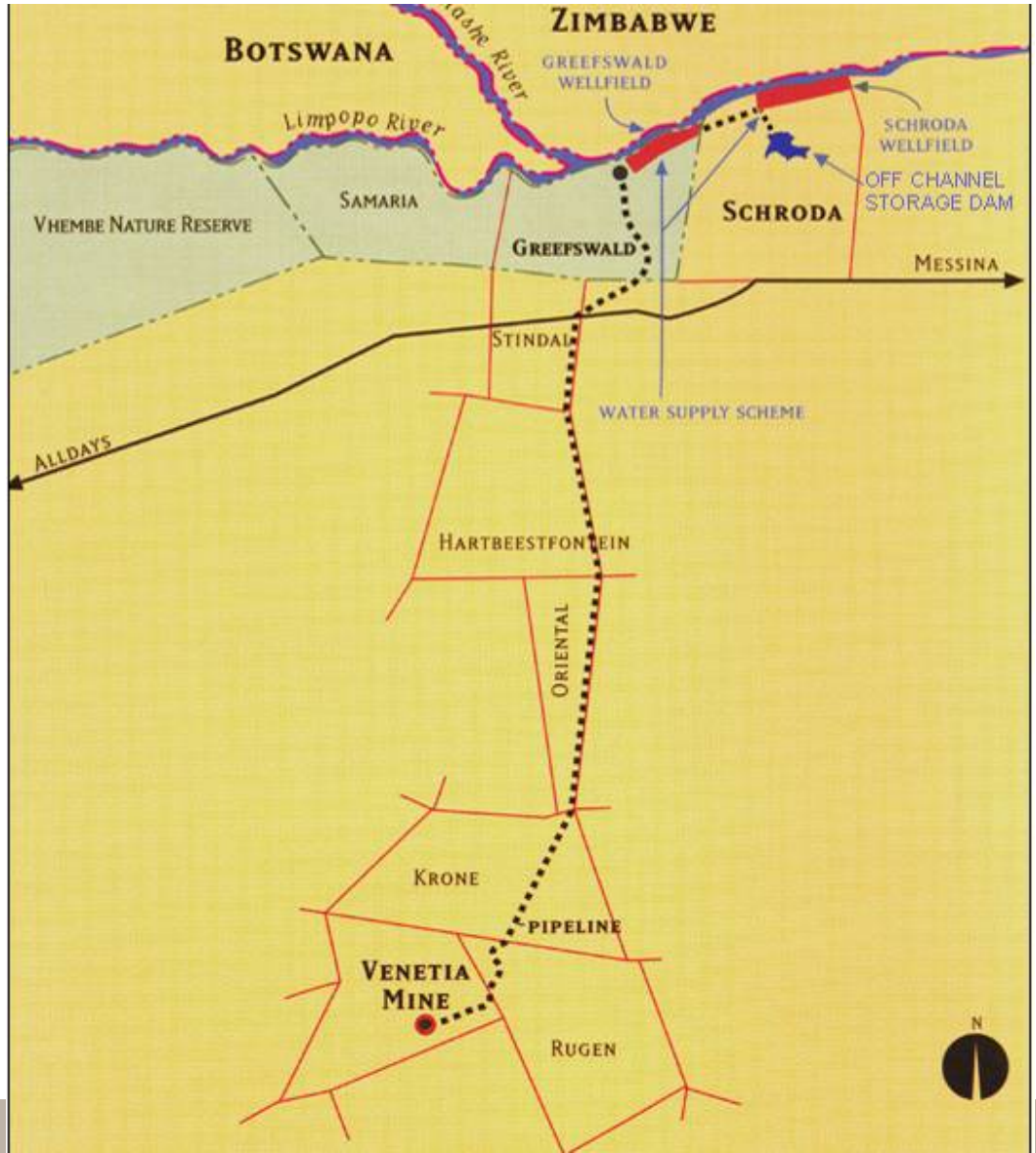
Water for mine obtained from wellfields through pipeline from Limpopo river, 35km from mine

Venetia Limpopo Nature Reserve was established comprising a range of properties across water pipeline and beyond for pure conservation purposes.



Case Study – Venetia Mine

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1989 – Established Environmental Task Group to evaluate all information from the EIAs for drawing water from the aquifers and associated infrastructure. Included:

- De Beers
- Dept of Water Affairs and Forestry
- Engineering Consultants
- Dept of Nature Conservation
- Representatives from local farmers

- Extensive data set on ecosystem change through ongoing monitoring
- Ongoing stakeholder engagement for the operation through various forums including Transfrontier Conservation Area development

- Venetia is a small water user in the area but a major mine for De Beers
- Opportunity to broaden the scale of stakeholder engagement and take a leadership role in water stewardship in the area through practical actions.

Strategic Drivers for a new partnership

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Overall

- Improve water security for all users
- Sustain ecological integrity and ecosystem services in the region
- In addition ……

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- Mitigate operational risk in the long term
- Mitigate reputational risk in context of current mining in the area

WWF

- Implementation of sound catchment management in conjunction with key role players

De Beers – WWF Water Partnership

Implementing Integrated Catchment Management

in the Limpopo River Basin

3-years, started 2010

1. **Basin-wide transboundary water risk assessment to characterise the socio-ecological system (with CSIR and Peace Parks Foundation)**

- Limpopo catchment, and key secondary catchments in both Botswana and South Africa
- Describe key drivers of the system (ecological, social, economic and governance)
- Describe the current climate and predicted changes

De Beers – WWF Water Partnership

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2. Implications of water risk for all role players and response strategy

- Identify key risks (operational, regulatory, and reputational)
- Develop scenarios of change and model the potential impacts
- Identify key intervention areas and responses in collaboration with key partners
- Develop the business case for the responses in conjunction with key partners, stakeholders and shared water-users

De Beers – WWF Water Partnership

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3. Implementation of Interventions

- Facilitate a shared vision of the system with key partners, stakeholders and shared water-users
- Implement key interventions (starting with pilot projects) to be undertaken with key stakeholders including:
  - Influence policy development and implementation
  - Capacity development of key institutions
  - Site specific stewardship of key areas
  - Improving social benefits and equity related to access to water
  - Alignment of governance structures (including transboundary)

Key Learnings

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- Ensure desired **outcomes** of the partnership are well defined even if the **specific objectives** of the individual partners differ
- Define the benefits for each party as there should be **mutual benefit** for each partner
- A partnership is not just a transaction but needs to be developed into a **relationship**
- Ensure **adequate lead time** to establish partnership and define outcomes
- Assess **risks** and **opportunities** for each party

Key Learnings

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- **No "one-size-fits-all**" engagements or partnerships
- Maintain **active engagement** and not act as a passive donor
- Ensure ongoing **alignment** and **clarity of outcomes**
- Plan for **funding** over **longer-term**
- **Engage all** who will be involved in the "work" – corporate vs operational
- **Dedicate time** and **appropriate resources**
- **Communicate** outcomes

Impacts

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An effective and successful partnership should mean ….

- **outcomes** are achieved
- improved **water management**
- improved **dialogue** between all stakeholders
- **expectations** of both parties having been met
- a **greater impact** through working **together** than individually
- positive **communications for all parties**

… thereby benefiting for water management and for the partners

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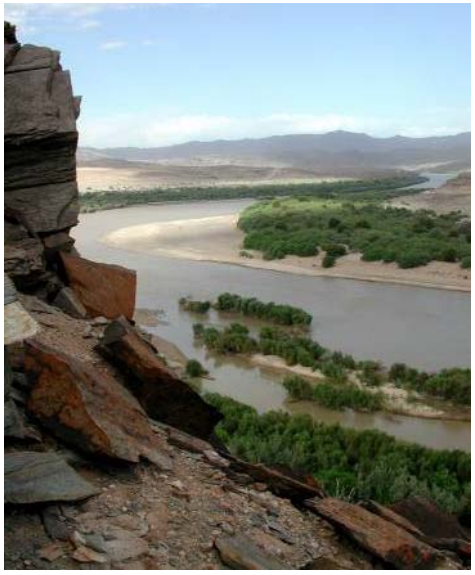
Namibia – Regional engagement

Orange River - RAMSAR site, International River
Participation in water management initiatives:

- Namdeb Stakeholder Forum
- Orange River Mouth Interim Management Committee (ORMIMC)
- Benguela Current Commission (BCC)
- Orange-Senqu River Commission (ORASECOM)
- Orange-Fish River Basin Stakeholder Forum



Botswana – National engagement

Development of alternative non-conventional water resources

- Rainfall storm water harvesting dam at Orapa Mine
- Cited as excellent example of rainfall harvesting in National scoping report of UNDP – GRB Integrated Water Resources Management Program
- 1 million cubic metre storm water dam
- Captures runoff from Orapa town paved surfaces
- Two year payback.
- Total cost BWP 58 million

Botswana – National engagement

Alternative water sources being investigated

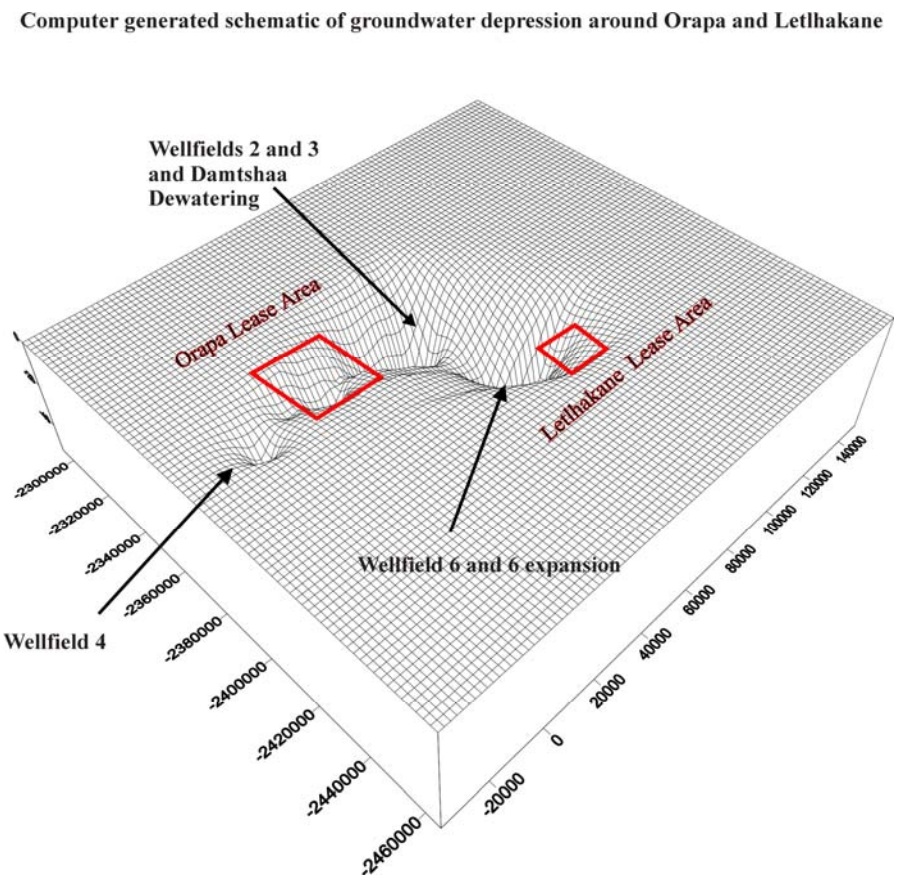
- Boteti Area 45km NW of Orapa:
- Initial investigations into use of poorer quality water– hypersaline groundwater
- Resource easily meets water demand for life of mines
- No competition for this resource i.e. no other users needing this resource

- Desalination technical solution needed – thermal desalination

- A 2011 study is proposed to examine the viability of desalinating this resource sufficiently for process use, potentially blended with fresh water.

Botswana – Community engagement

- 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
- There has been very little impact to other users over the last 30 years of abstraction



Range of engagements

Botswana - National level

- **Development of National Integrated Water Resources Management Plan**
- **2009-2012: UNDP – GEF - Botswana Government**
- Range of stakeholders with direct involvement on Steering Committee:
  - Government Departments - Water Affairs, Environmental Affairs, Waste Management and Pollution Control, Agriculture
  - United Nations Development Program
  - CEO Kalahari Conservation Society
  - University of Botswana
  - Botswana Water Partnership
  - Debswana (only “private” company) - Significant groundwater user

- **Botswana Bureau of Standards - National Water Quality Technical Standards** e.g.
- Drinking Water Standard