



Strategic Water Partners Network  
SOUTH AFRICA



# **Introducing the MWCB**

**INTEGRATED WATER QUALITY MANAGEMENT SYMPOSIUM**  
**31 May 2017**

# About SWPN Partners

- *Formal multi-stakeholder partnership recognised in the National Water Resources Strategy 2 (2013)*
- *Develops collective action to improve water security*
- *Carries out:*
  1. *Analysis*
  2. *Convening*
  3. *Project Development*
  4. *Project Scaling*





# Strategic focus areas to close the water gap

## Effluent and Wastewater Management

- Municipal & mine wastewater & management and reuse

## Water Use Efficiency and Leakage Reduction

- Municipal and industrial water loss

## Agricultural Supply Chain Water

- Irrigation water use efficiency and promotion of equitable access to water for food security

## Sanitation

- Promote access to resilient, cost effective, water efficient sanitation solutions

## Skills Development and Transformation

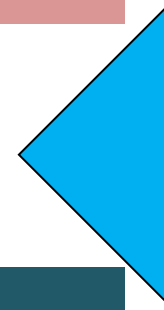
- Development of sustainable economically viable skills for the water sector

## Water Stewardship

- Collective and coherent response to water risk through targeted action and supportive policy environment

## Priority areas based on:

- Replicability
- Scalability
- Potential for public / private engagement

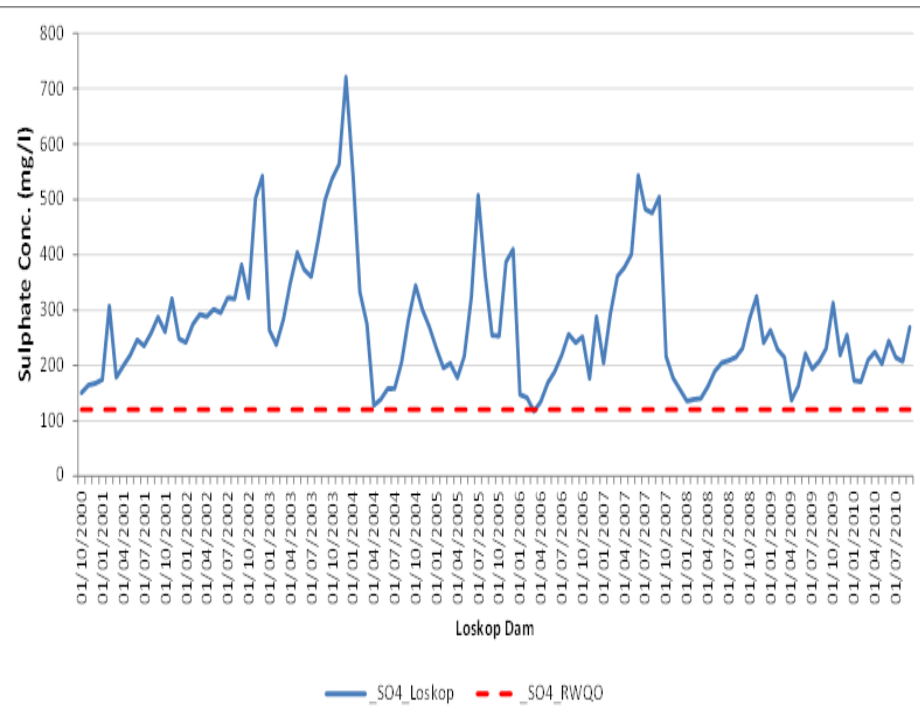


# Why a mine water management programme?

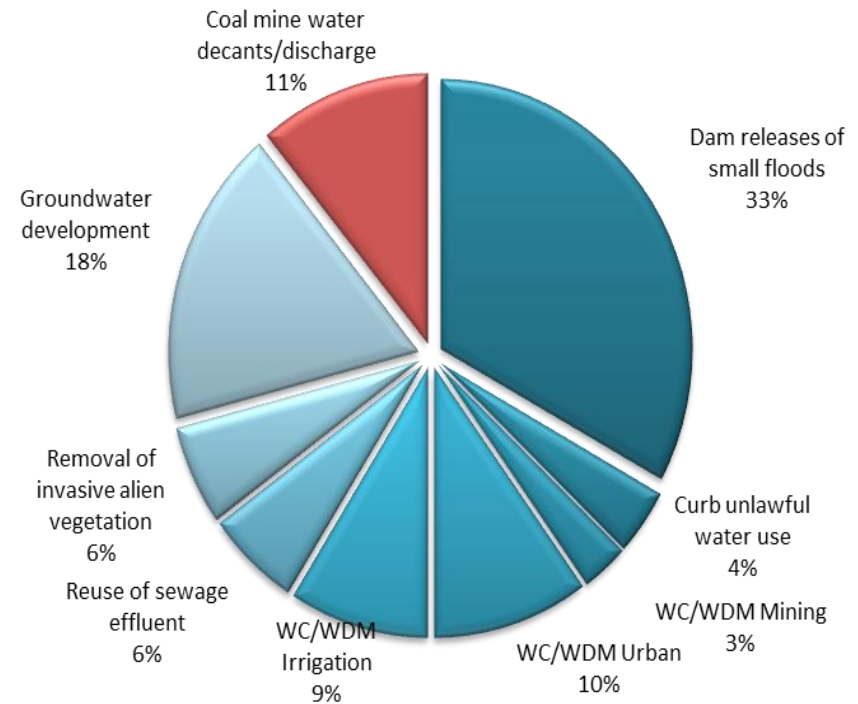


- Water quality concerns
- Water supply-demand reconciliation opportunity especially in the future
- Current mine water management is not sustainable beyond mine closure
- There **is** a common interest to develop and implement a sustainable solution but there ~~are~~ were divergent views on what the key issues are that have to be addressed

## Witbank Coalfields. Impact on WQ: Loskop Dam



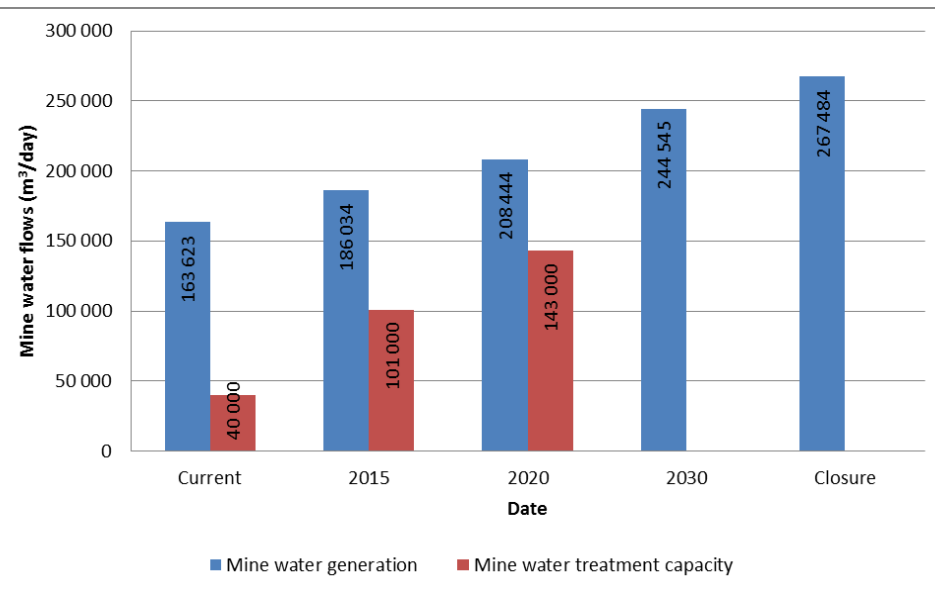
## Water Reconciliation Strategy – Olifants Catchment



Interim RWQOs:

**Sulphate:**  
120mg/L

## Estimated mine water generation & projected installed treatment capacity



## Illustrative lifecycle mine water treatment costs and revenues

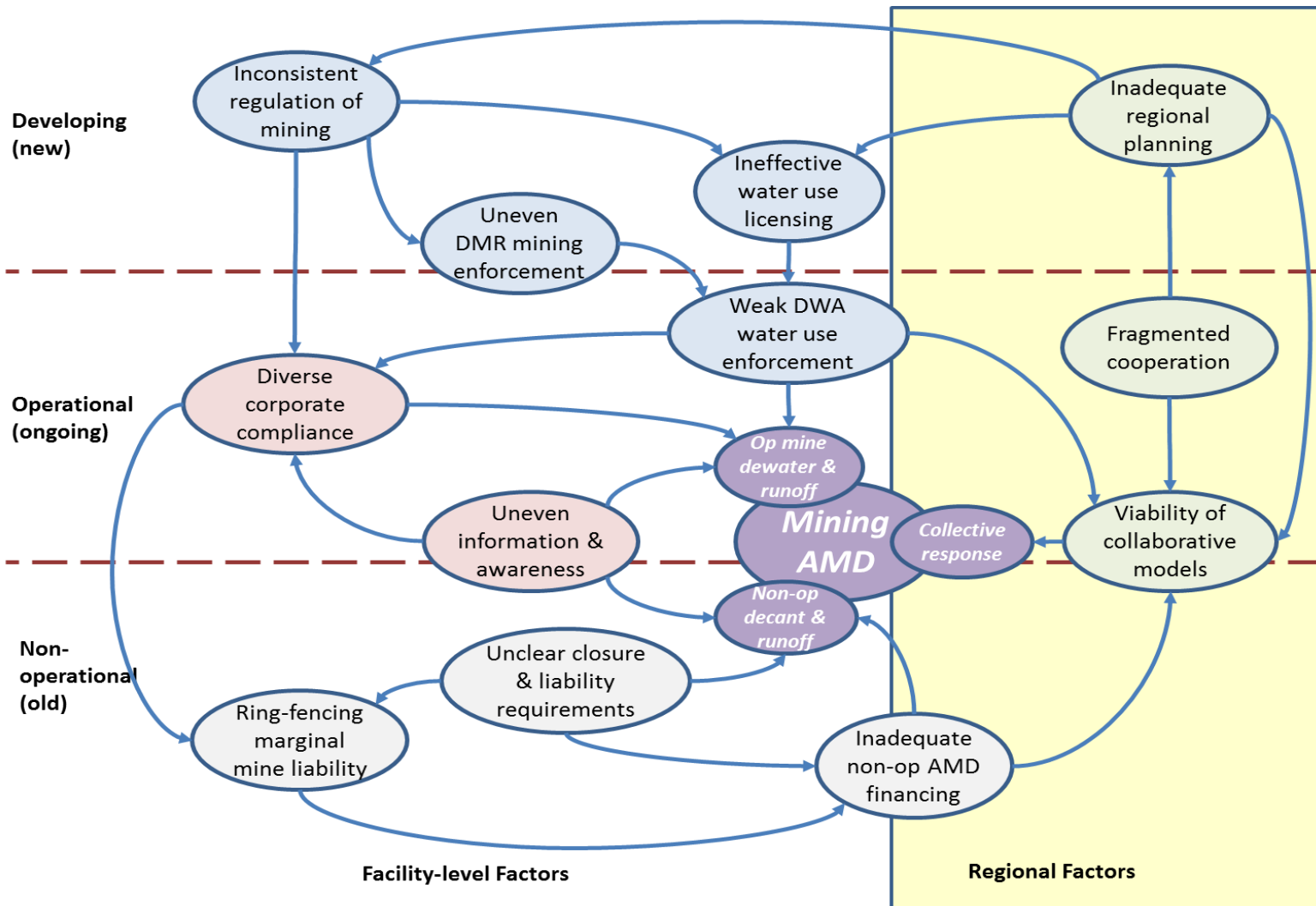
Item	Unit cost (R/m³)
Capital - initial	5.75
Capital – replacement	3.30
O&M	7.65
<b>Total cost</b>	<b>16.70</b>
Less: Revenue	-5.00
<b>Net cost</b>	<b>11.70</b>



# Mine water management programme plan

	Programme Phase		
	Pre-feasibility	Feasibility	Implementation
Activities, projects, process,	<p>Phase 1. Participatory problem analysis by key stakeholders</p> <p>Phase 2 –Initial options analysis for a technical and institutional solution</p> <p>Phase 2 - Establishment of a coordinating body that will enable feasibility study based on above initial options analysis</p>	<p>Using the pre-feasibility work, the coordination body will lead the process of identifying a programme sponsor that will carry out technical, financial and institutional feasibility studies</p>	<p>Implementation of collaborative sustainable mine water management solutions</p>
SWPN role	<p>Project implementer and manager</p>	<p>Facilitator</p>	<p>Facilitator. Documenting lessons learnt and sharing</p>

# Results of problem analysis







# Opportunities to address key dimensions of the problem

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- Corporate accountability and information
  - Self/peer –regulation ?
- Mining regulatory environment
  - Innovative regulatory/econ instruments
- Mine closure requirements, liability and financing
- Regional planning, management and cooperation

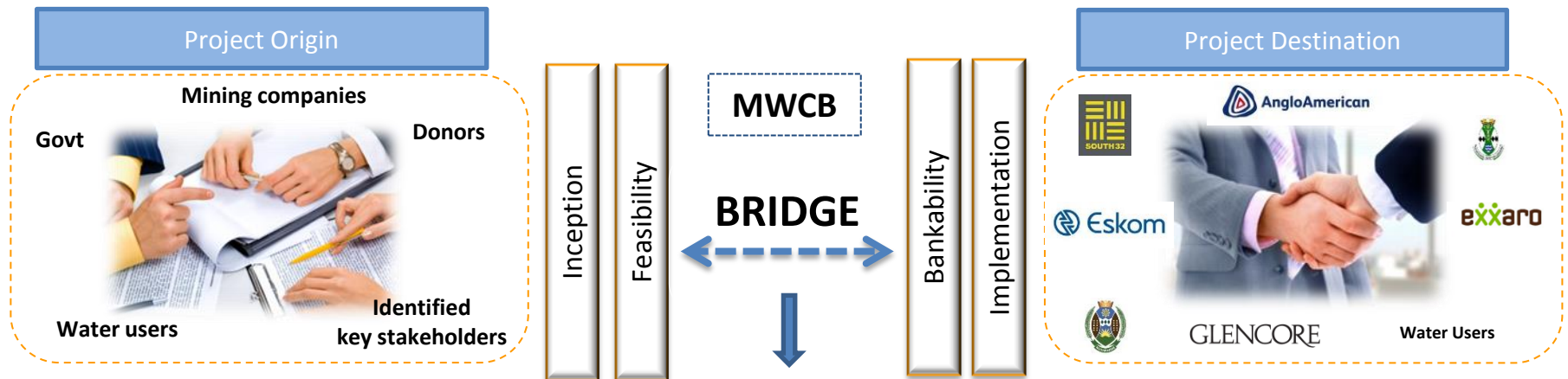
A vibrant green leaf is positioned at the top right, with a single water droplet falling from its tip. Below the droplet, a series of concentric ripples spread out across a body of water. The background is a clear blue sky with soft, white clouds. The overall composition is clean and fresh, emphasizing nature and purity.

# **Establishment of MWCB**



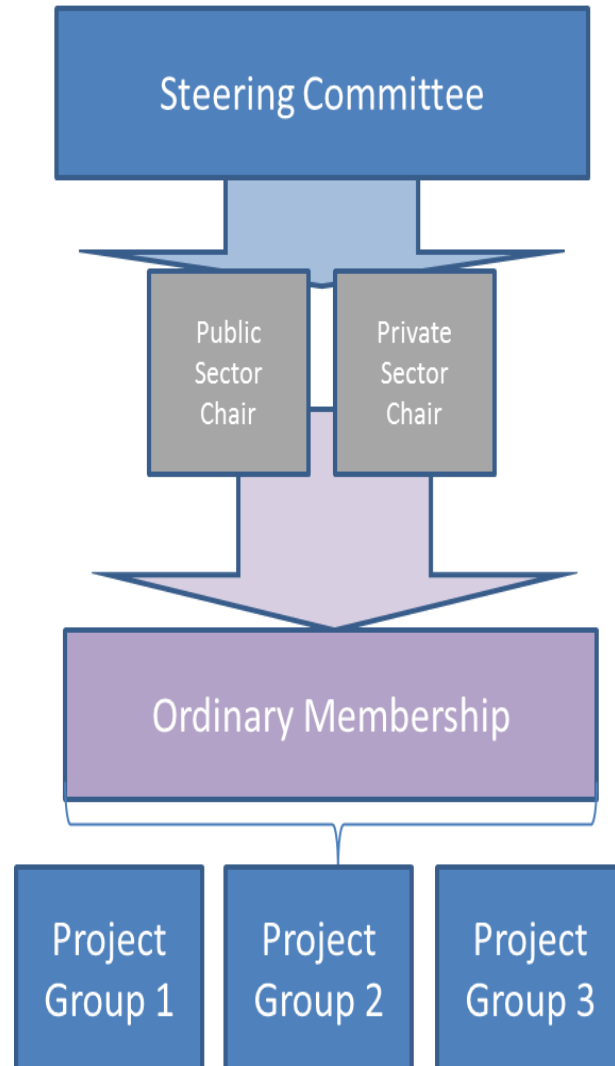
# Achieved to date

1. Governance structure including implementing team developed
2. Identified key stakeholders and stakeholder groups
3. Commitment from Public and Private Sector partners
4. Constitution drafted
5. 5 year Business Plan developed and initial projects identified
6. 3 year budget developed for secretariat funding
7. Financial commitment to fund secretariat for 3 years
  - Eskom, Anglo, Exxaro, Glencore, South 32





# Committee structures

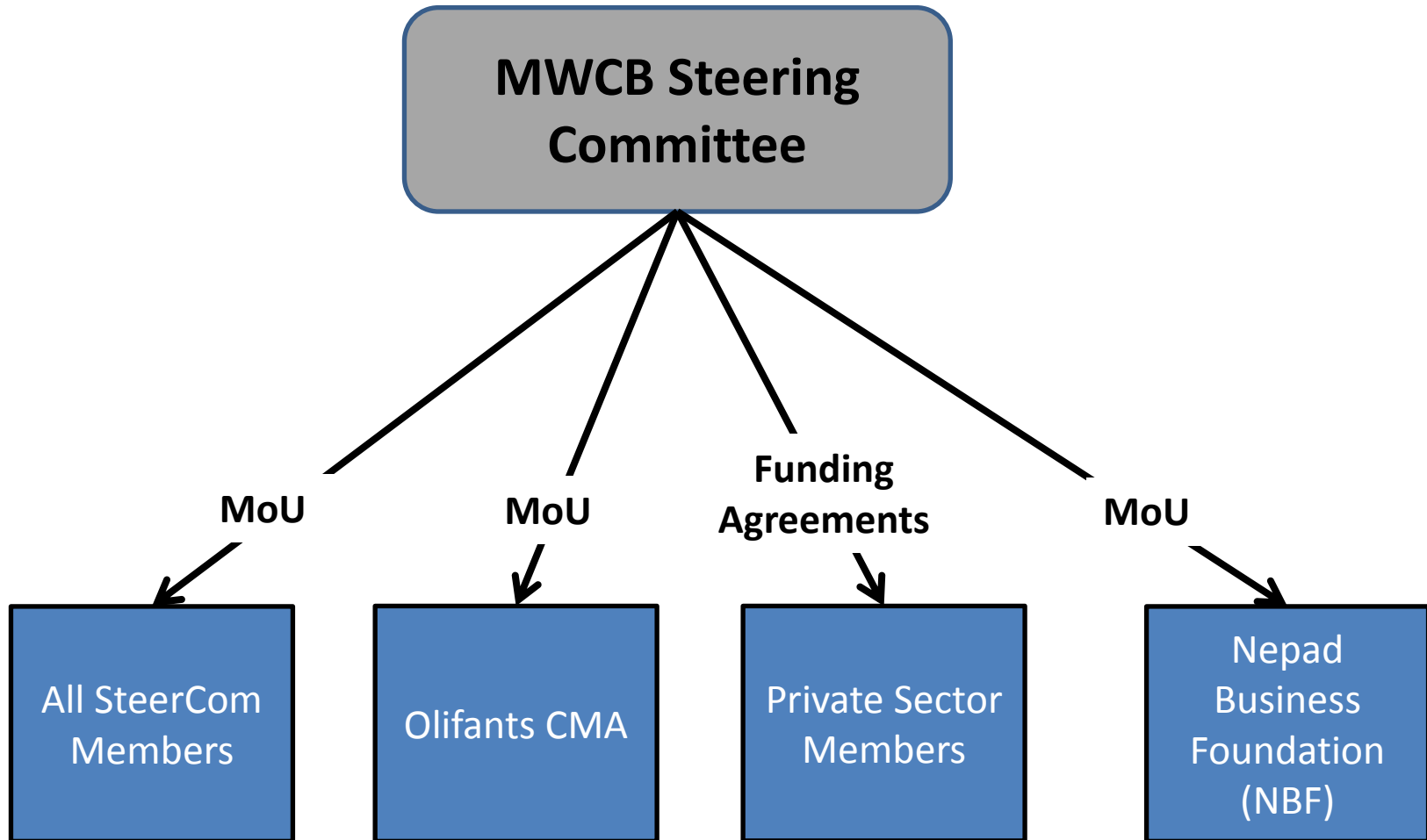


**Direct Stakeholders**  
Core funding / founding  
members

**Indirect Stakeholders:**  
Open to other industries &  
Sectors e.g. Agriculture,  
Water Use Associations,  
irrigation schemes etc.

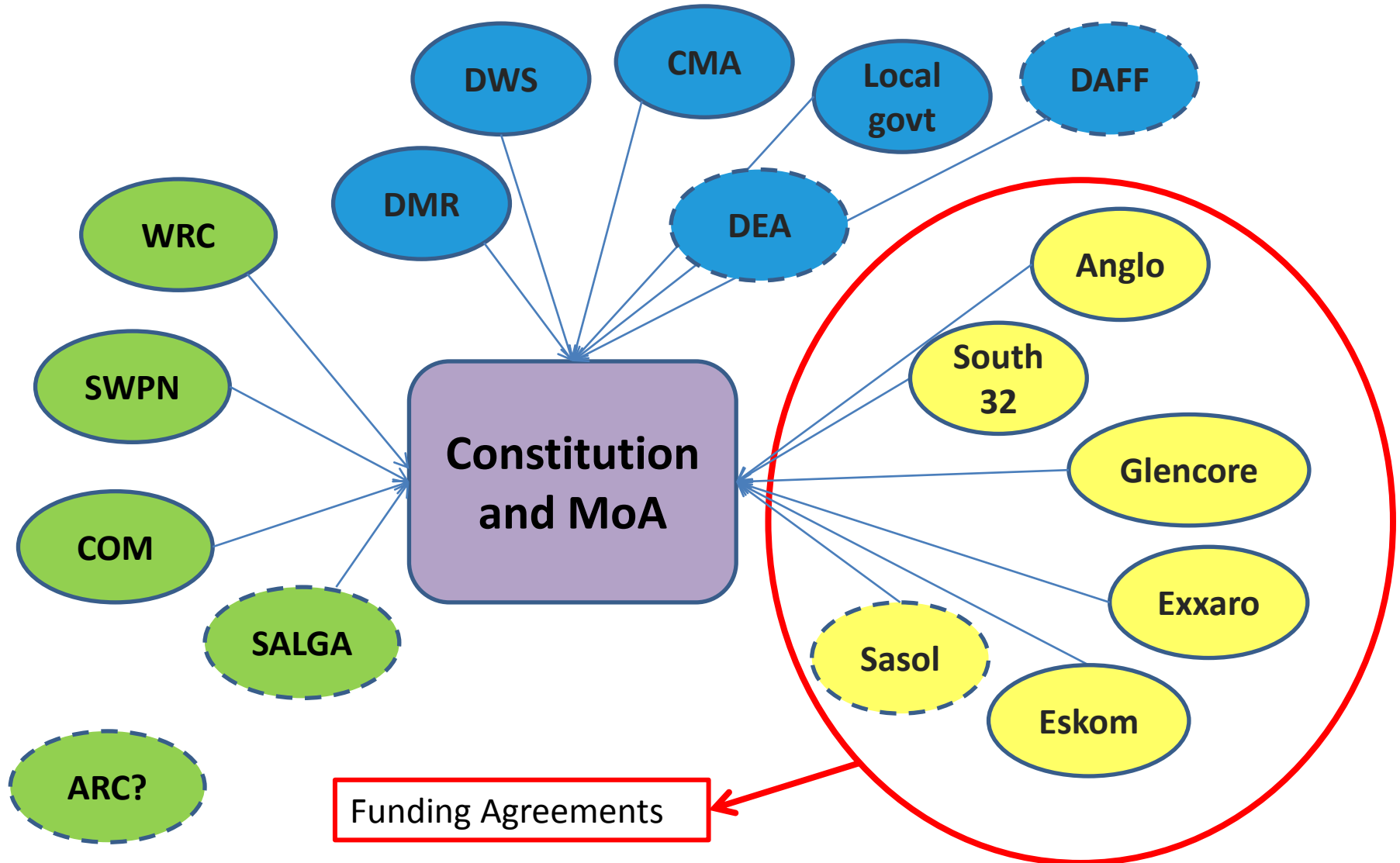


# Steering Committee





# Steering Committee





A vibrant green leaf is positioned at the top right, with a single water droplet falling from its tip. Below the droplet, a series of concentric ripples spread out across a body of water. The background is a clear blue sky with soft, white clouds. The word "Projects" is centered in the middle of the image, overlaid on the ripples.

**Projects**

# Project Updates

1. Mine Water for Irrigation
2. Land Stewardship – pilot closure model
3. Arnot Water Treatment
4. Economic study







# Mine Water for Irrigation

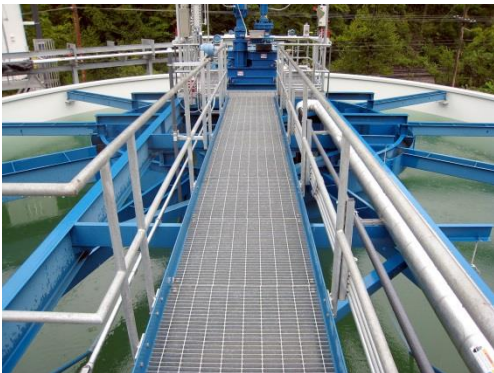
- All approvals from key government departments received
- 2 pivots – virgin and rehabilitated land
- 1 pivot in place and a winter crop planting is anticipated for May 2017





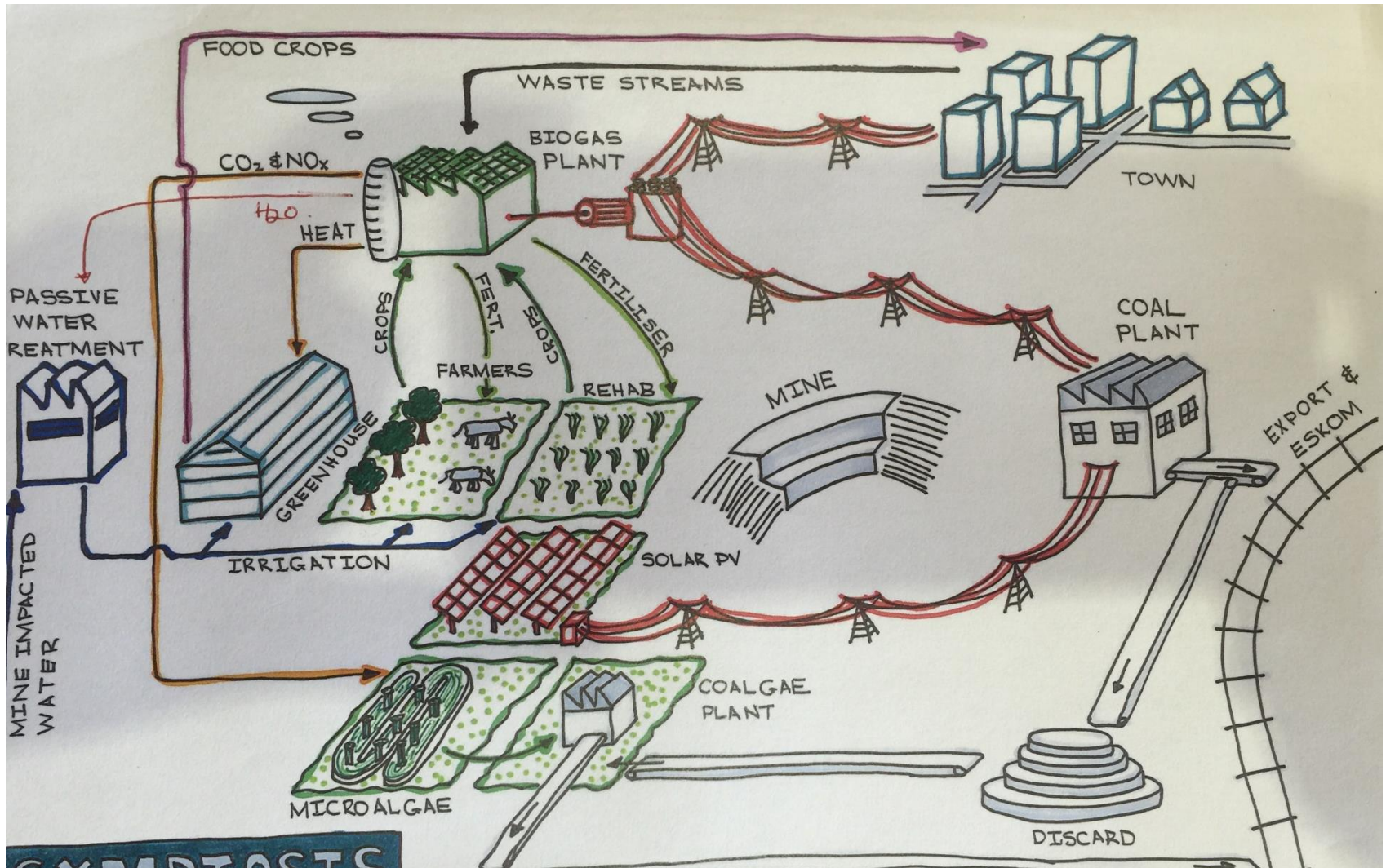
# Arnot Regional Water Scheme

- Initial meeting held May 2017
- Desktop study of existing information to take place
- Identify all interested stakeholders in the region
- Develop combined water model
- Develop options for regional water management





# Land Stewardship – pilot closure model





## Land Stewardship – pilot closure model

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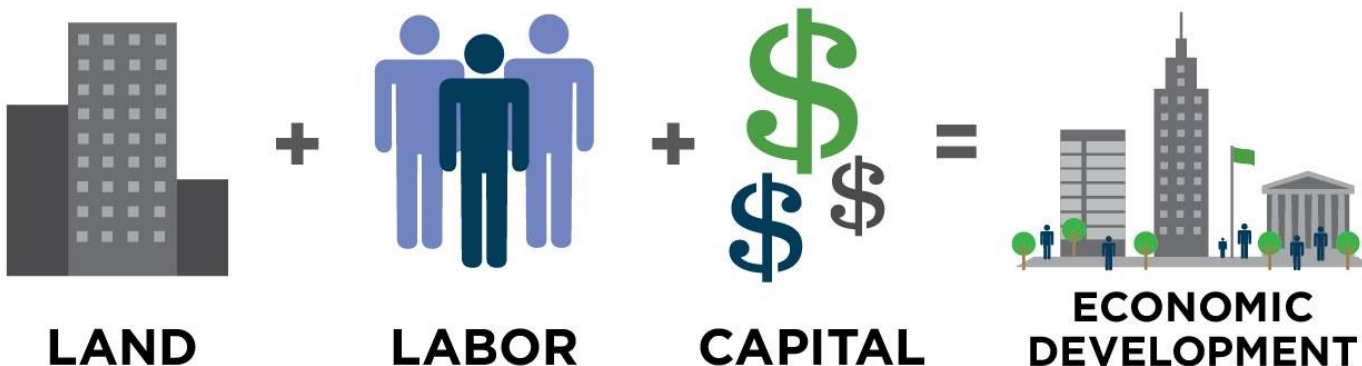
- Kromdraai Colliery identified for pilot project
- Planned closure 2018
- Consists of virgin and rehabilitated land
- Project plan to be developed
- Phased approach – timeframes and funding
- Work with authorities to change Closure Plan
- Learnings from this project will be taken forward for future closure planning





# Regional economic closure model

- Develop regional economic model with key stakeholders (National, Regional and Local planning)
- Look at industrialisation and agricultural options
- How to implement integrated models at larger scale
- Partner with DTI, other donor organisations
- Give focus to future projects and closure planning





# Acknowledgments

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- SWPN EWMM working group and Mine Water Project – PSC
- Project funders
- Current MWCB members
- Service providers and SWPN Secretariat and NBF staff

*“I am grateful to the SWPN for becoming an international benchmark and example of the successes that can be achieved when the private and public sector come together with will, integrity and cohesiveness –addressing real issues and not losing sight of the needs of all people within this nation”.*

Minister Nomvula Mokonyane

# Thank you

A partnership between the Department of Water and Sanitation, the private sector and civil society working collectively to close the national water gap



water & sanitation

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA



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