

Biodiversity of Pans

Khakhea-Bray Transboundary Aquifer Region

Tatenda Dalu



Pan Wetlands



Wetland Biodiversity Matters

Wetland biodiversity matters



For the climate
30% of land-based carbon is stored in peatlands



For clean water
Swamps and marshes remove pollutants



For jobs
One billion people depend on wetlands for their livelihoods



For economies
Wetlands provide USD 47 trillion in essential services annually

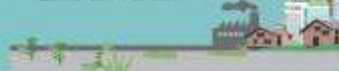
Loss of wetlands = Loss of biodiversity



87% of the world's wetlands have been lost globally in the last 300 years

Key drivers of wetland loss

- Pollution
- Drainage
- Land conversion



One million animal and plant species threatened with extinction

Wetland species threatened with extinction

- Reptiles
- Amphibians
- Water birds
- Mammals



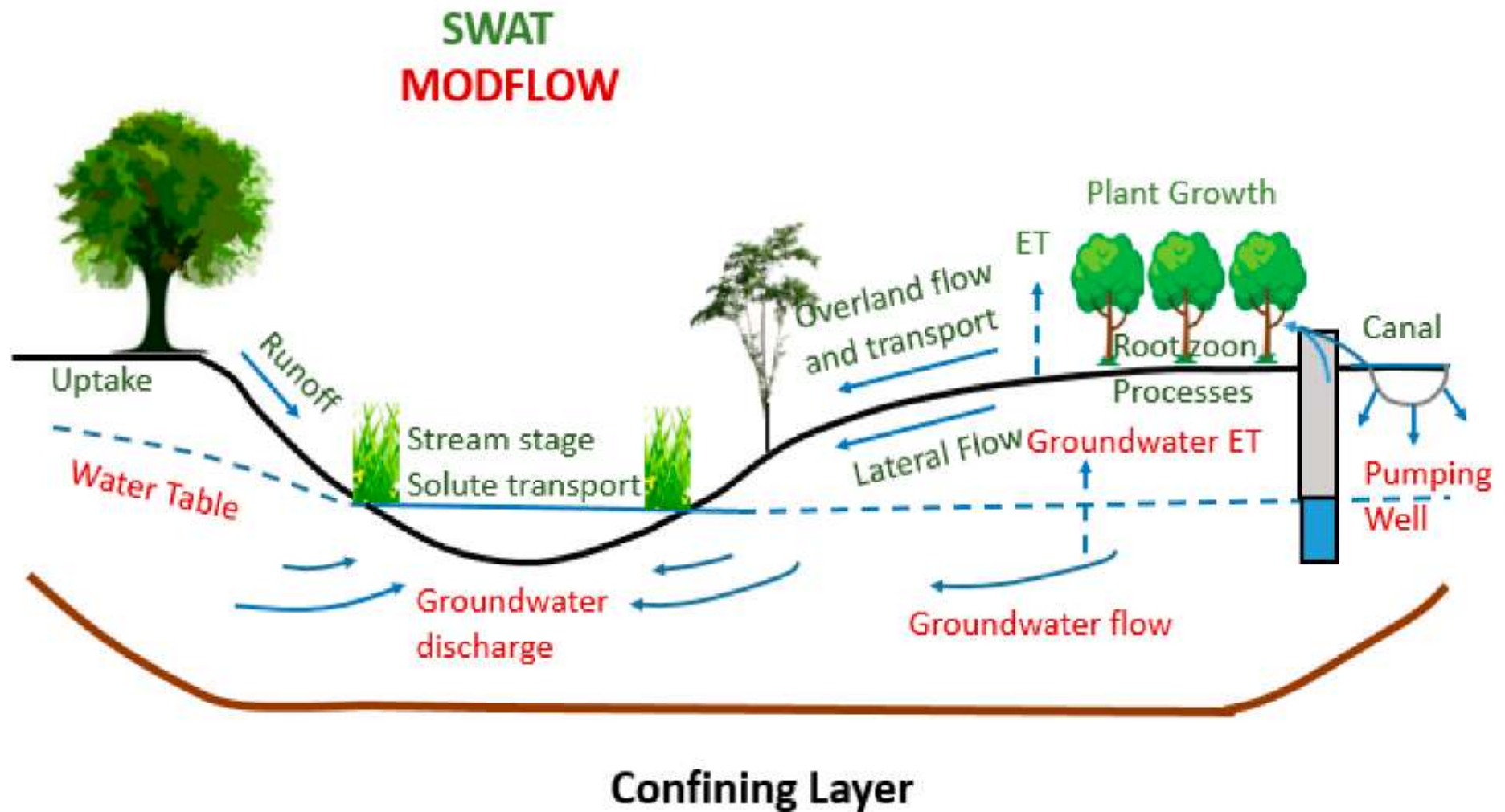
End biodiversity loss, restore wetlands



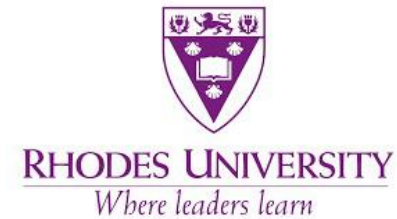
Learn more: WorldWetlandsDay.org #WetlandBiodiversityMatters



Why Care About Groundwater



Biodiversity Affiliated Institutions



Biodiversity Key Members

- Dr Tatenda Dalu
 - Prof Ryan J Wasserman
 - Dr Adam Wyness
 - Dr Chad Keates
-
- Mr Farai Dondofema
 - Prof Timothy Dube



Biodiversity Students

PhD

- Chipo P Mungenge



MSc

- Fannie M Masina
- Frank T Bute


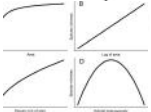




Key Aims

- The documentation of important plant and animal species for the pans.
 - This will help with the identification of keystone species for conservation prioritization.
- Identify hotspots where management interventions should be focused.
 - These could be GDEs where groundwater mining is taking place hence affecting the integrity of the ecosystems.



Working Plan

	Activities	Outputs	Outcomes
	Characterizing the species existing at selected GDEs.	<ul style="list-style-type: none"> Ecological/Biodiversity surveys at identified GDEs Database of the data collected during the surveys 	<ul style="list-style-type: none"> Data on biodiversity at the selected GDEs available to the public through the SADC-GIP and what global repository? GBIF?
	Determining the relationship between the species and the groundwater dynamics (Identification of hot spot GDEs in the TBA)	<ul style="list-style-type: none"> Report on the ecological/groundwater interactions (cause and effect relationship) 	<ul style="list-style-type: none"> Research publications available through the SADC-Grey Literature Archive. Promotion of the understanding of ecological role groundwater
	Identification of species and ecological communities of conservation concern relying on groundwater status	<ul style="list-style-type: none"> GDEs/Species most dependent on groundwater Identified. 	<ul style="list-style-type: none"> Hotspot GDEs identified and prioritised for interventions. Research publications available through the SADC-Grey Literature Archive.
	Develop a spatial database of the species biodiversity at the GDEs	<ul style="list-style-type: none"> Biodiversity survey completed and data captured into a database. 	<ul style="list-style-type: none"> Biodiversity data set readily available to the public (SADC-GIP data is open source).

Key Deliverables

Project Team Engagement	Meeting: Project leaders and postgraduate students	End of Month 6
Stakeholder Engagement 1	Workshop: Project Presentation and Input	End of Month 6
Deliverable 2	Literature Review and Proposal: Biodiversity	End of Month 12
Deliverable 5	Preliminary Results: Biodiversity	End of Month 18
Stakeholder Engagement 2	Workshop: Results Presentation and Input	End of Month 28
Deliverable 8	Draft Final Report: Biodiversity	End of Month 30
Deliverable 11	Final Report: Biodiversity	End of Month 33

Thank You

