GREATER CAPE TOWN WATER FUND

Stellenbosch Invasive Species Forum
19 January 2022

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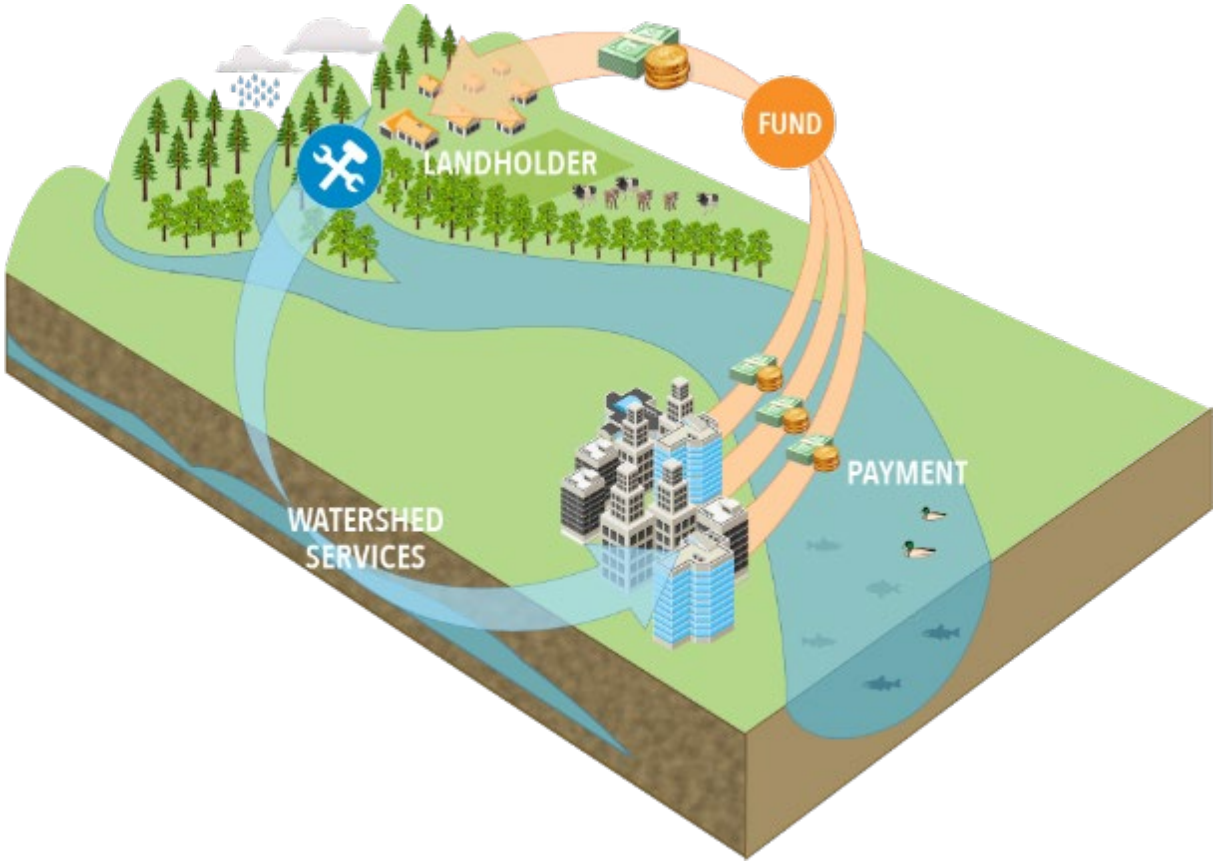
Program Director - TNC South Africa

Background

Making the case

Public Private Partnership In Action

GCTWF: What is a Water Fund

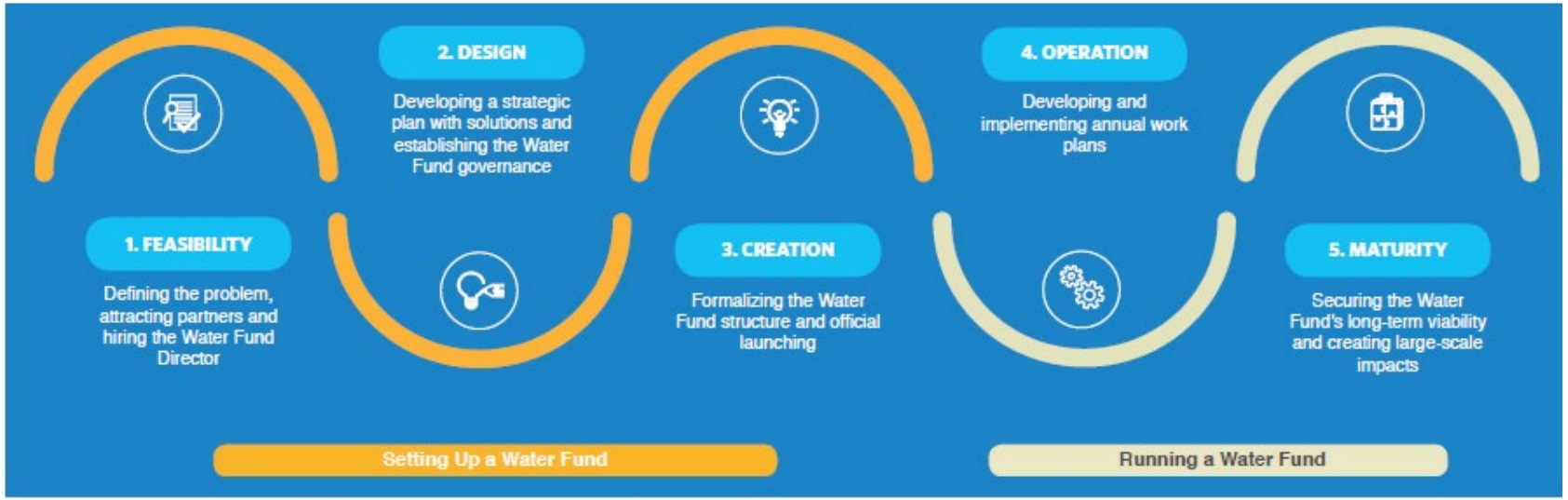


A WATER FUND IS NOT

- Taking over Government's mandate
- Competing
- Duplicating

GCTWF: Water Fund Life Cycle

The Nature Conservancy



Feasibility Overview

- Step 1.1 Eligibility Screening Checklist
- Step 1.2 Situation Analysis Report
- Step 1.3 Decision Support Document
- Step 1.4 Gain Formal Commitments & Hire WF Director

Design Overview

- Step 2.1 Formalize WF Board & Develop Charter
- Step 2.2 Start Creation of Legal Mechanism
- Step 2.3 Update Situation Analysis
- Step 2.4 Water Fund Strategic Plan
- Step 2.5 Design Studies
  - Portfolio of Interventions
  - Social Impact Assessment
  - Business Case
  - Long-term Finance
- Step 2.6 Monitoring & Evaluation
- Step 2.7 Pilot Projects

Creation Overview

- Step 3.1 WF Legal Mechanism Established
- Step 3.2 Create first Annual Operating Plan
- Step 3.3 Operational Management Readiness
- Step 3.4 Launch Event

Operation Overview

- Step 4.1 Annual Operating Plan
- Step 4.2 Reporting
- Step 4.3 Adaptive Management

Maturity Overview

Maturity Criteria

- ✔ Significant % of long-term financing committed
- ✔ Routine reporting that documents WF's ongoing impact
- ✔ Influence demonstrated
- ✔ Positive public perception demonstrated

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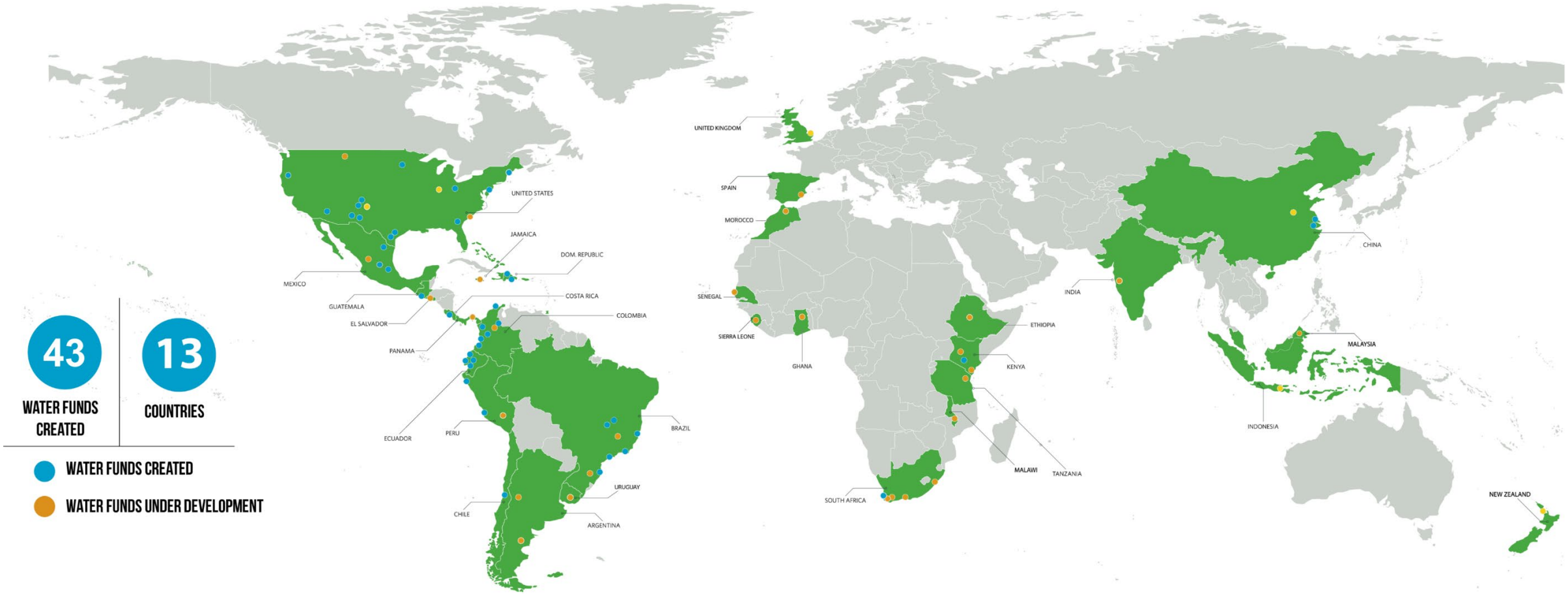
WATER FUNDS WORLDWIDE

November 2020



LATIN AMERICAN WATER FUNDS PARTNERSHIP

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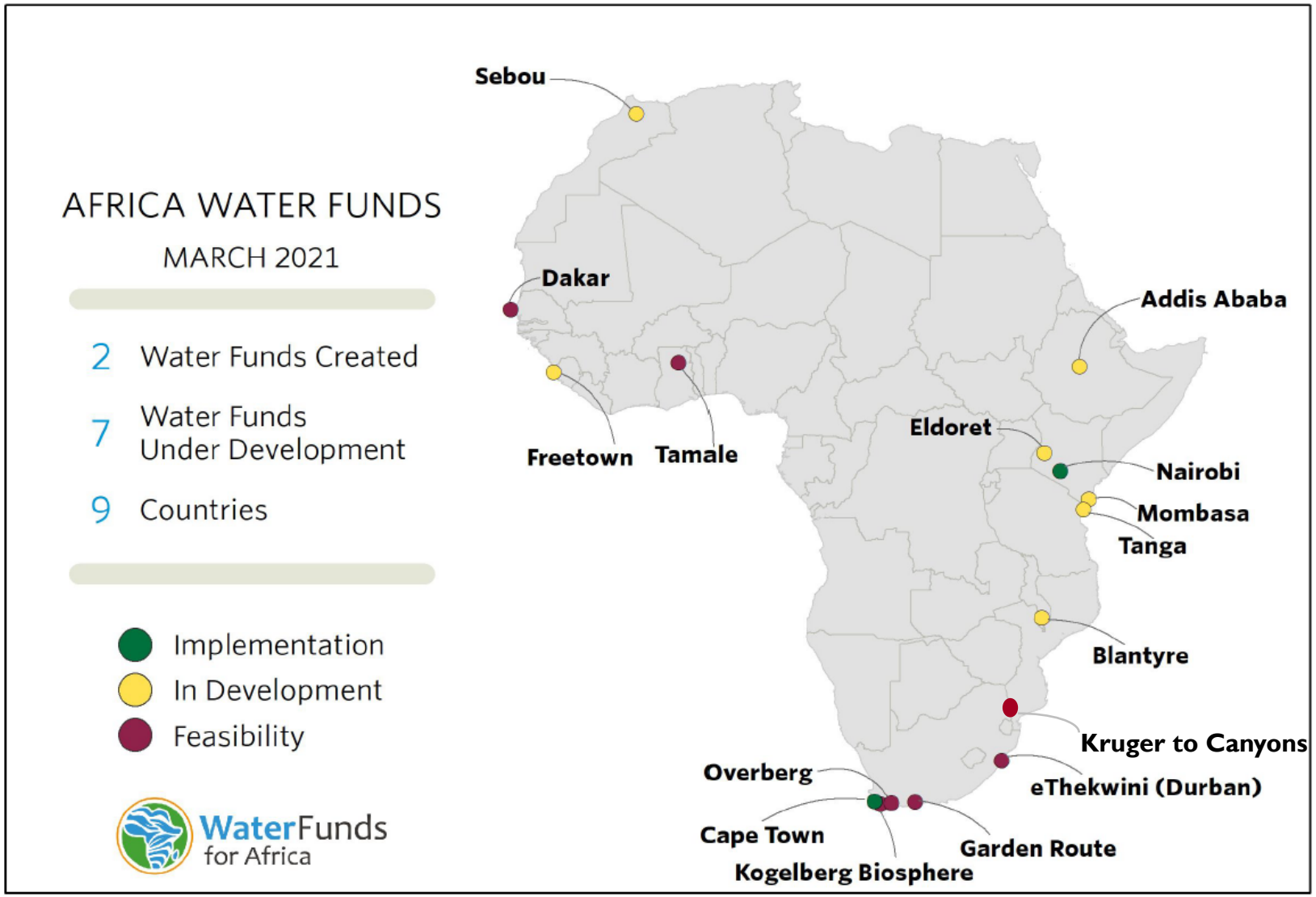
FUNDACIÓN FEMSA

IDB Inter-American Development Bank

gef

Supported by:
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
based on a decision of the German Bundestag

GCTWF: Water Funds in Africa



The Greater Cape Town Water Fund

GCTWF: 2018: Greater Cape Town Region faced a crisis

Image credit: fivepointsix/iStock

Response to Predictions: Cape Town's Water Demand to outstrip supply

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Water Demand Management

Waste Water Reuse

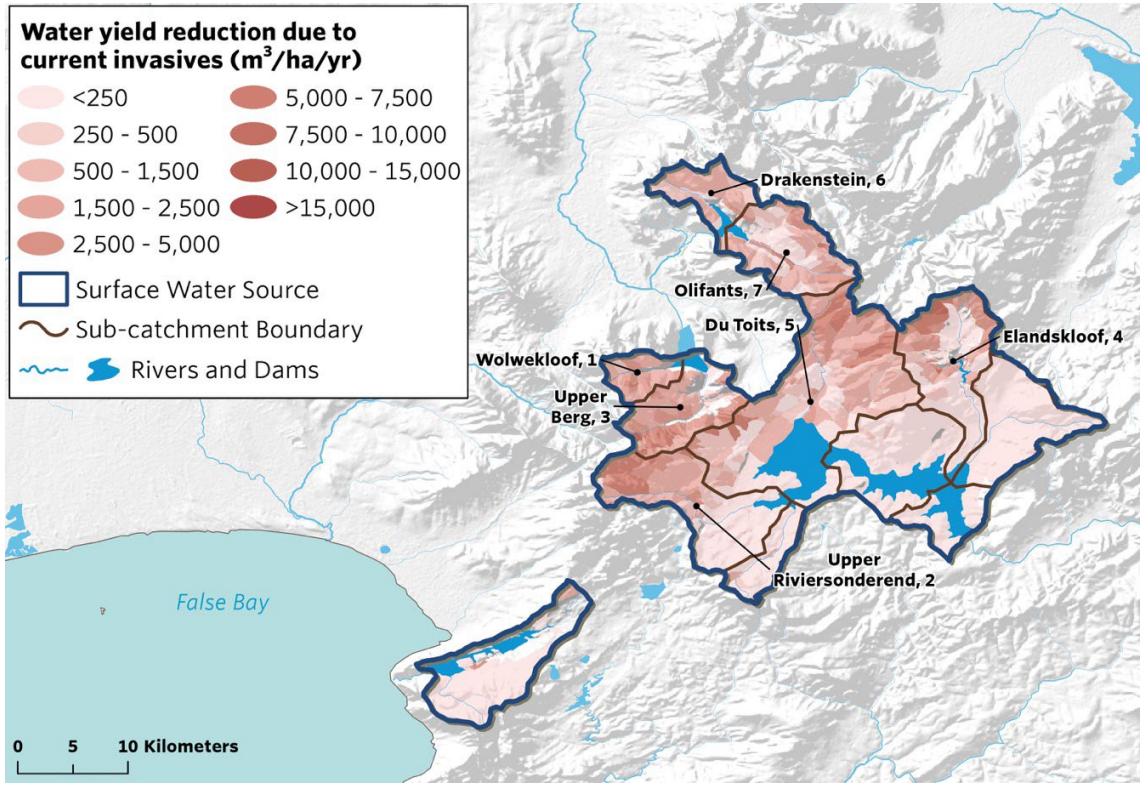
Seawater Desalination

Deep Aquifer drilling (TMGA)

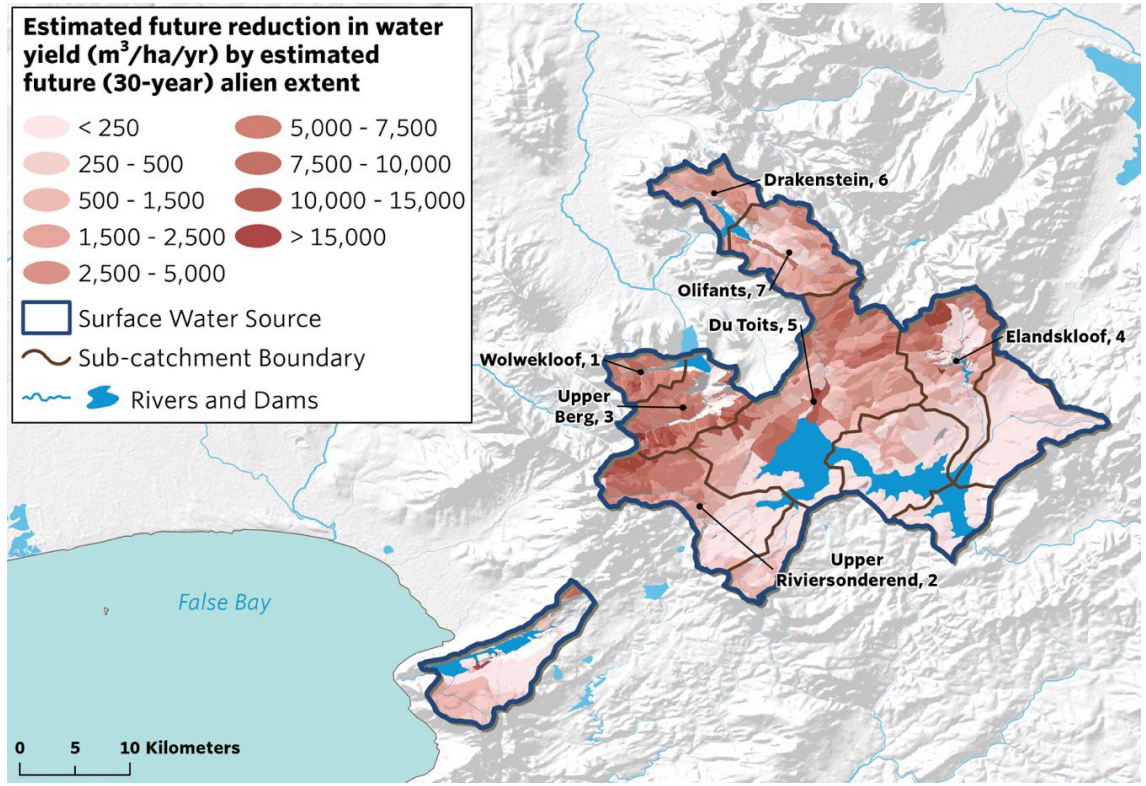
GCTWF: Two-thirds of the catchments invaded by alien trees

GCTWF: 55 Billion liters of water lost every year

2018: IAP invasion



Projected future IAP invasion



If ‘no action’ water losses double by 2045 – to 100 billion liters/year


Photo credit: Louise Stafford

GCTWF: New approach needed

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FUNDING

- Reliance on Government
- Inconsistent funding
- Insufficient funding
- Unclear Cost – Benefit
- Bureaucracy – delays, stop start

IMPLEMENTATION

- Fragmented, institutions working in silos
- Lack of prioritizing & focus
- Cleared areas not maintained
- Not working in High Altitude areas
- Absence of clear strategy

MONITORING & EVALUATION

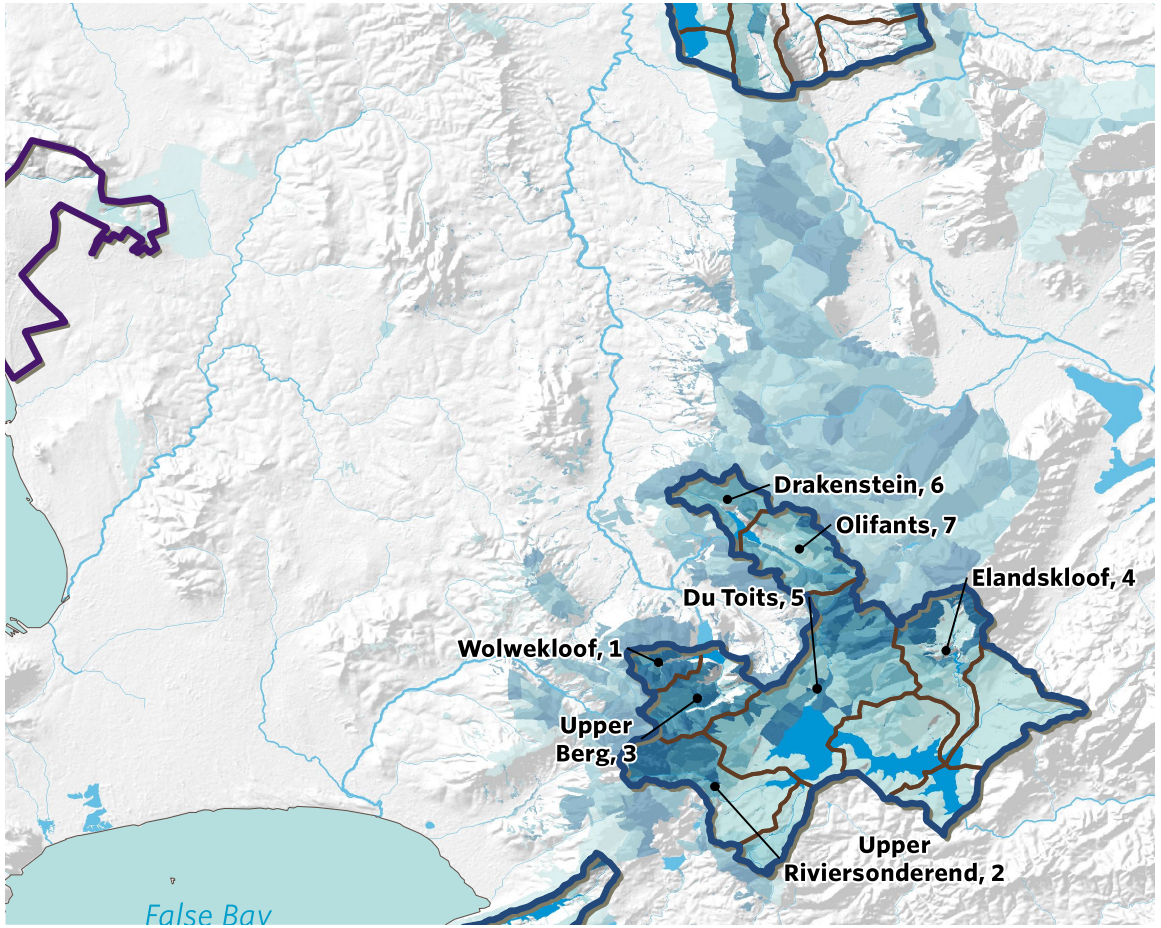
- Not tracking impact
- Lack flexibility

Background

Making the case

Public Private Partnership In Action

GCTWF: Business case launched in 2018

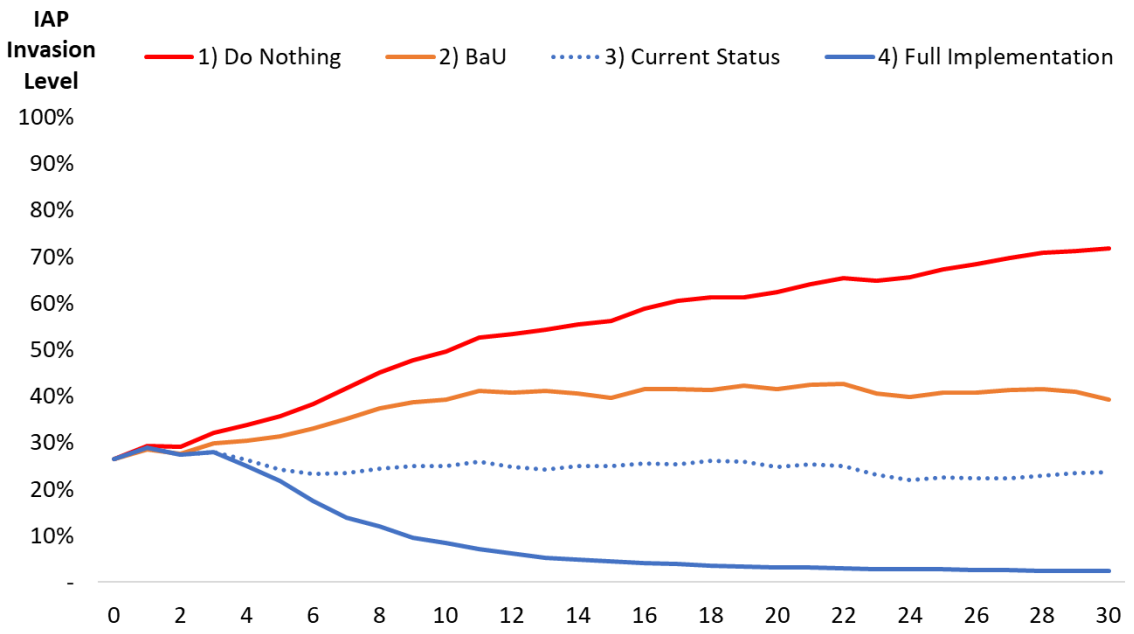


GCTWF: Scenarios

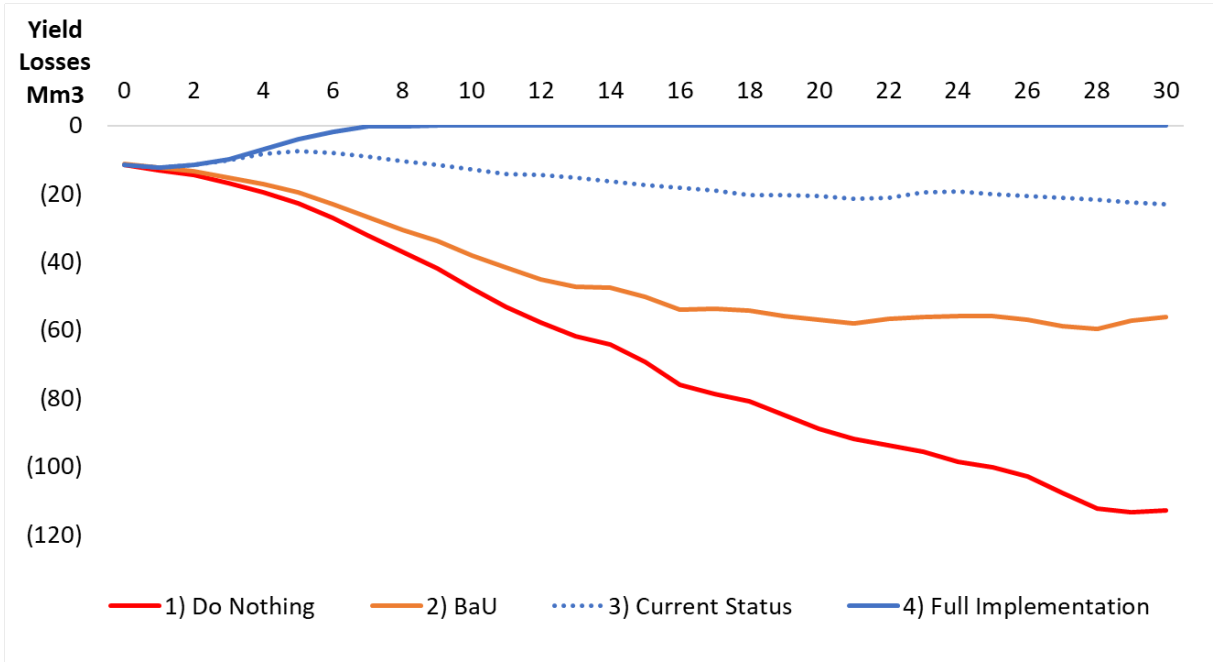
1. Do nothing
2. Business as Usual (BaU)
3. Current status
4. Full implementation

GCTWF: Modeling the impact of invasive trees

Invasion level (% of area)



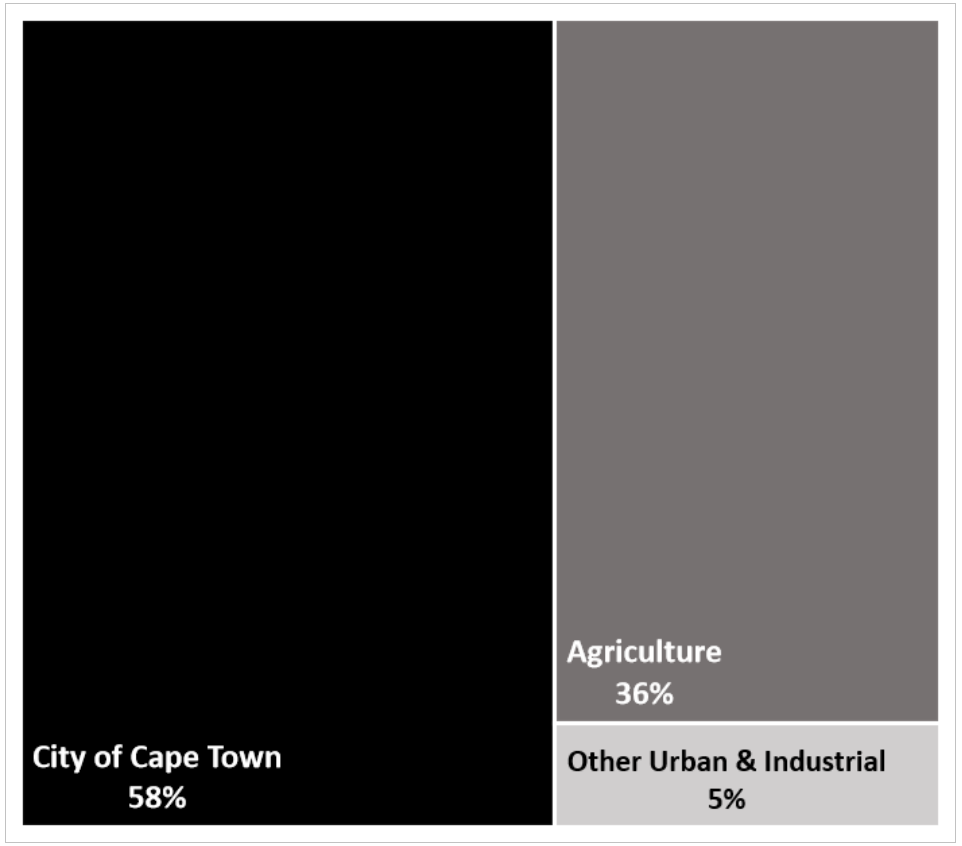
Reduction in system yield (Mm^3)



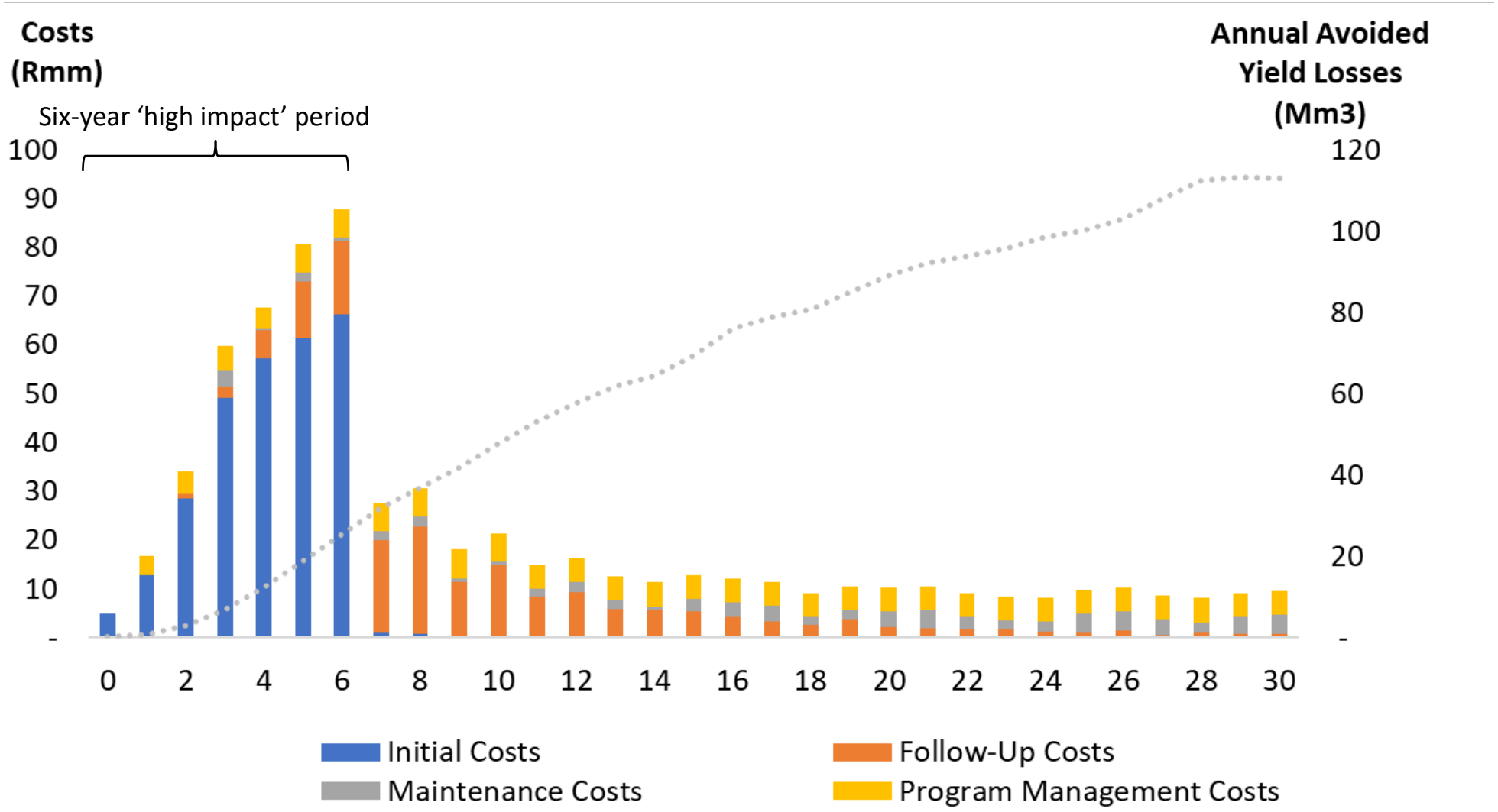
GCTWF: “Full Implementation”: Who benefits, and how much?

Avoided yield reduction by *dam catchment*

Avoided yield reduction by *user*

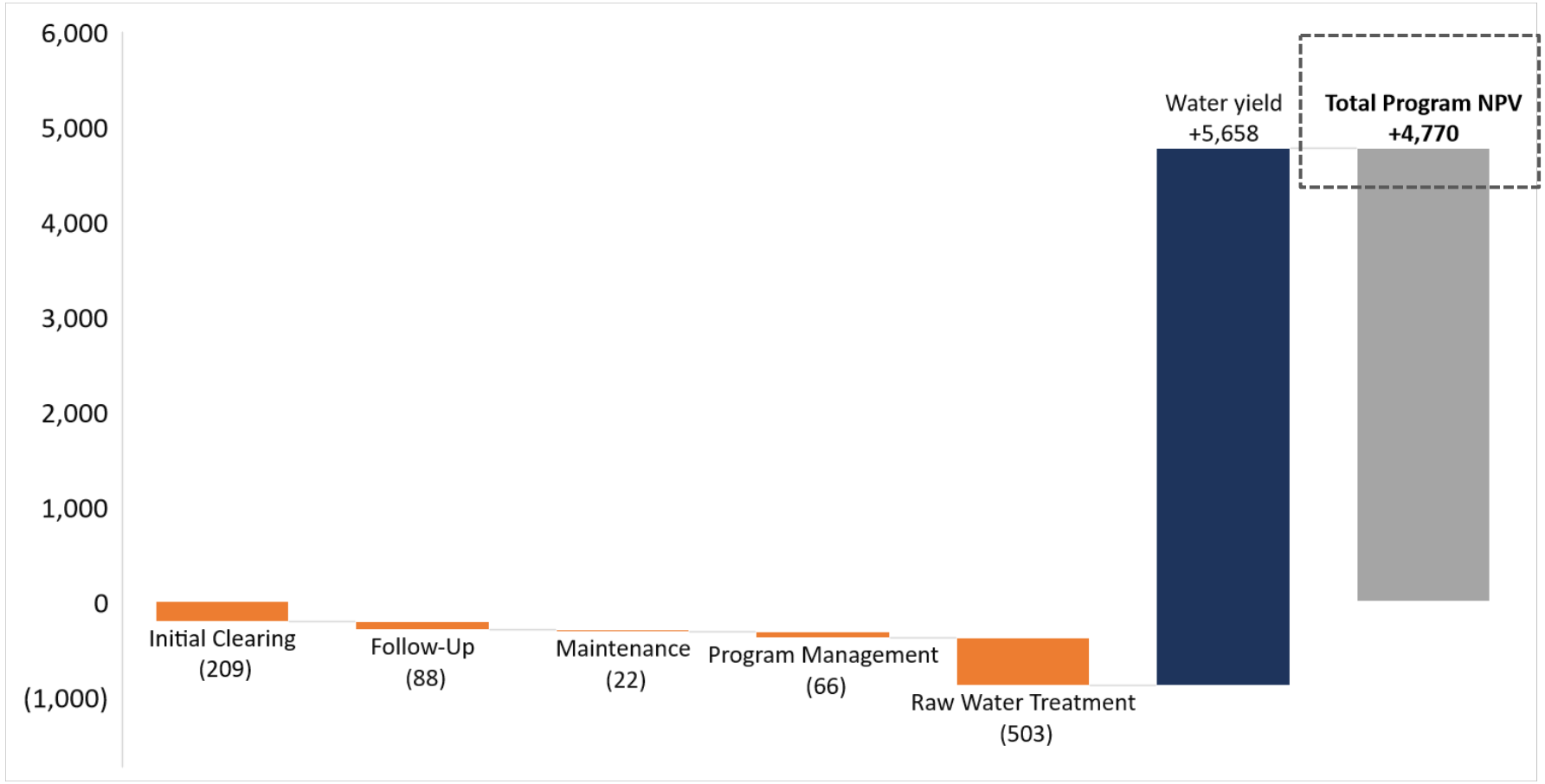


GCTWF: 30 Year life cycle: 6 years High Impact - 24 years Maintenance



GCTWF: Avoided Desalination operational costs - Estimated ROI - 350%

Excluding any co-benefit contributions associated with sustainable livelihoods and biodiversity gains.

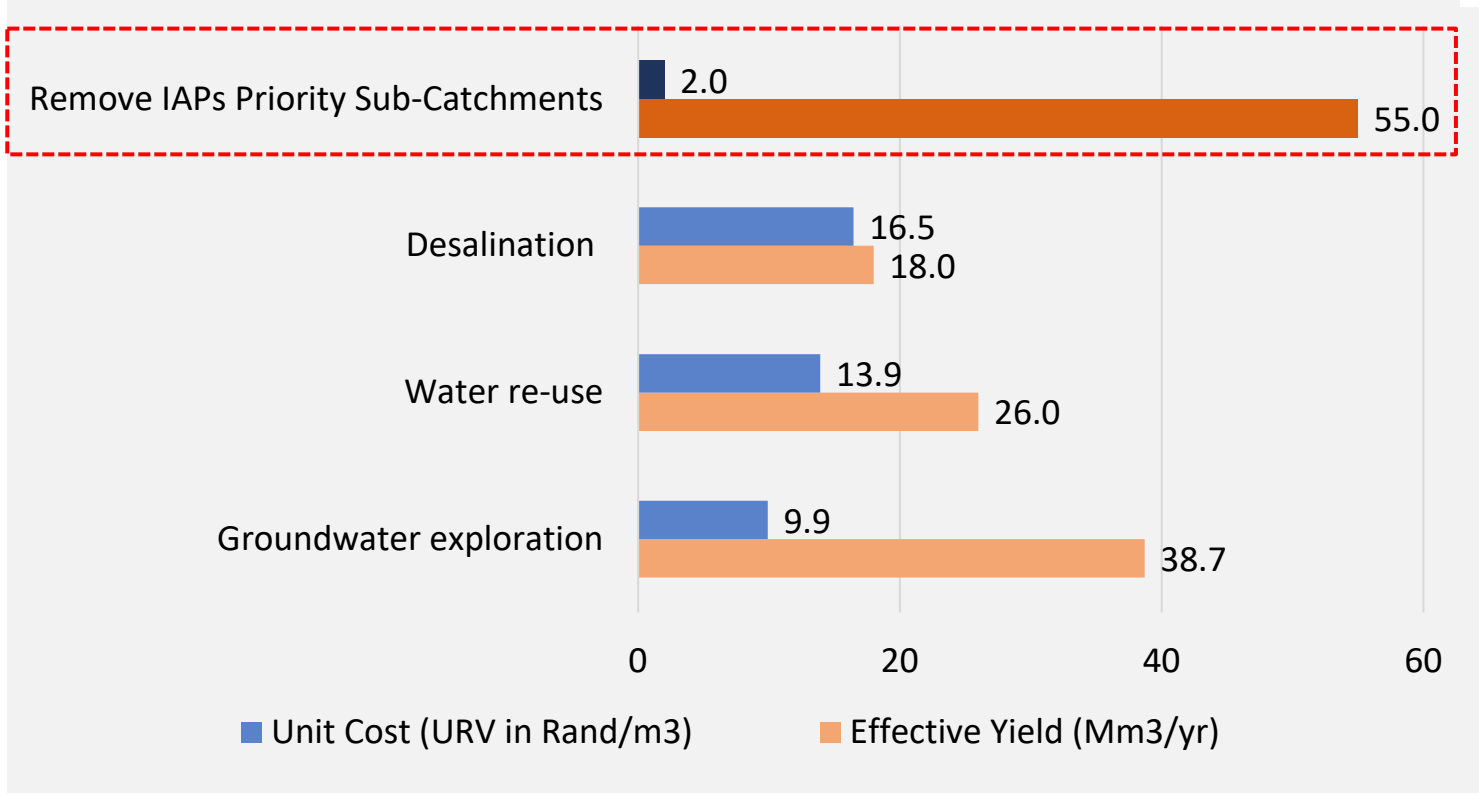


Value of water yield savings calculated at marginal cost of desalination production (R9/kl)


Photo credit: Louise Stafford


Photo credit: Duncan Robertson

GCTWF: Nature-Based Solutions cheapest water augmentation option



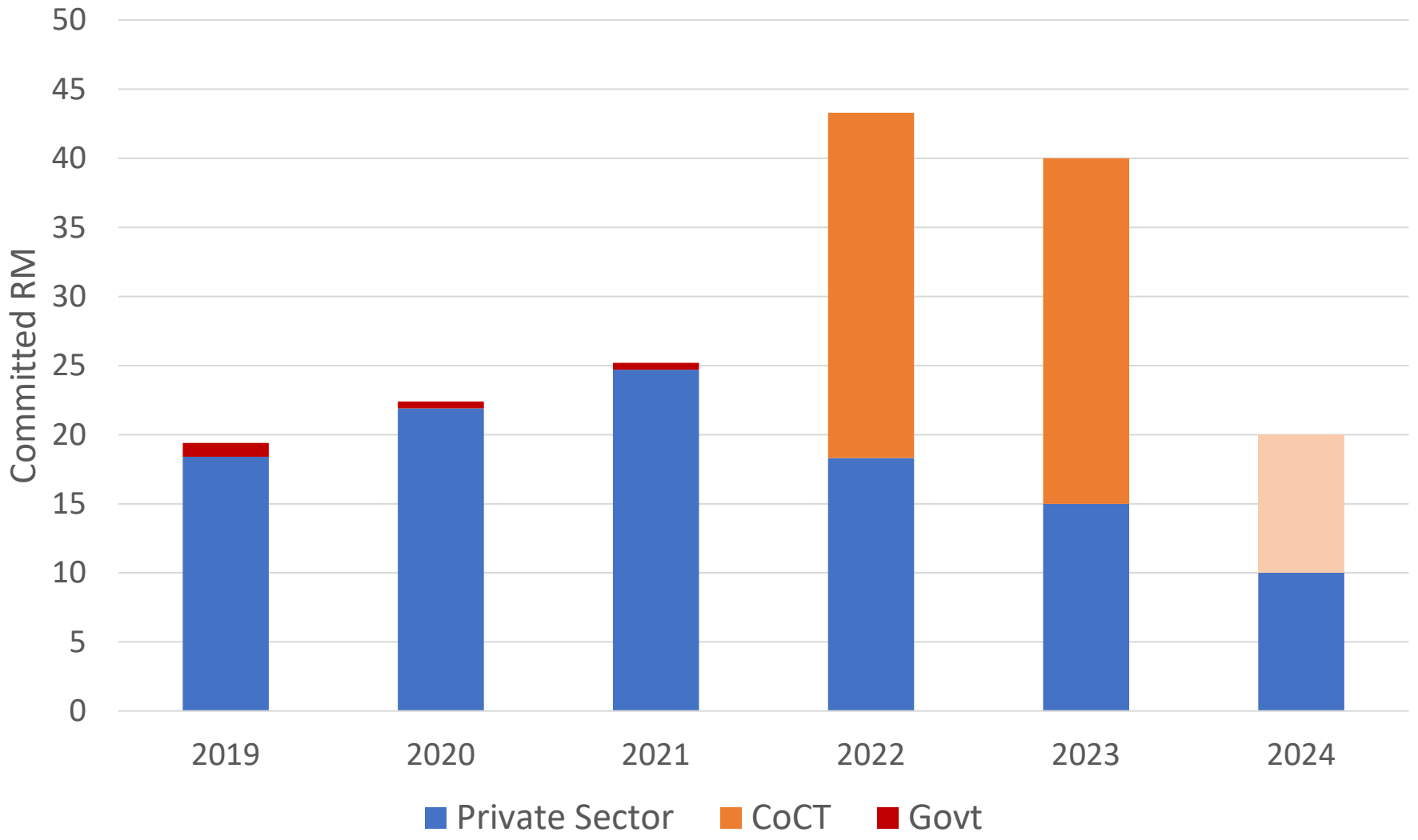
Additional Benefits

- Access to Green Jobs
- Restore biodiversity
- Reduce negative wildfire impacts

Photo credit: Roshni Lodhia

Increases dry season water availability by **24%**

GCTWF: Blended funding – Six-year High Impact Phase



Background

The Greater Cape Town Water Fund Business Case

Public Private Partnership In Action

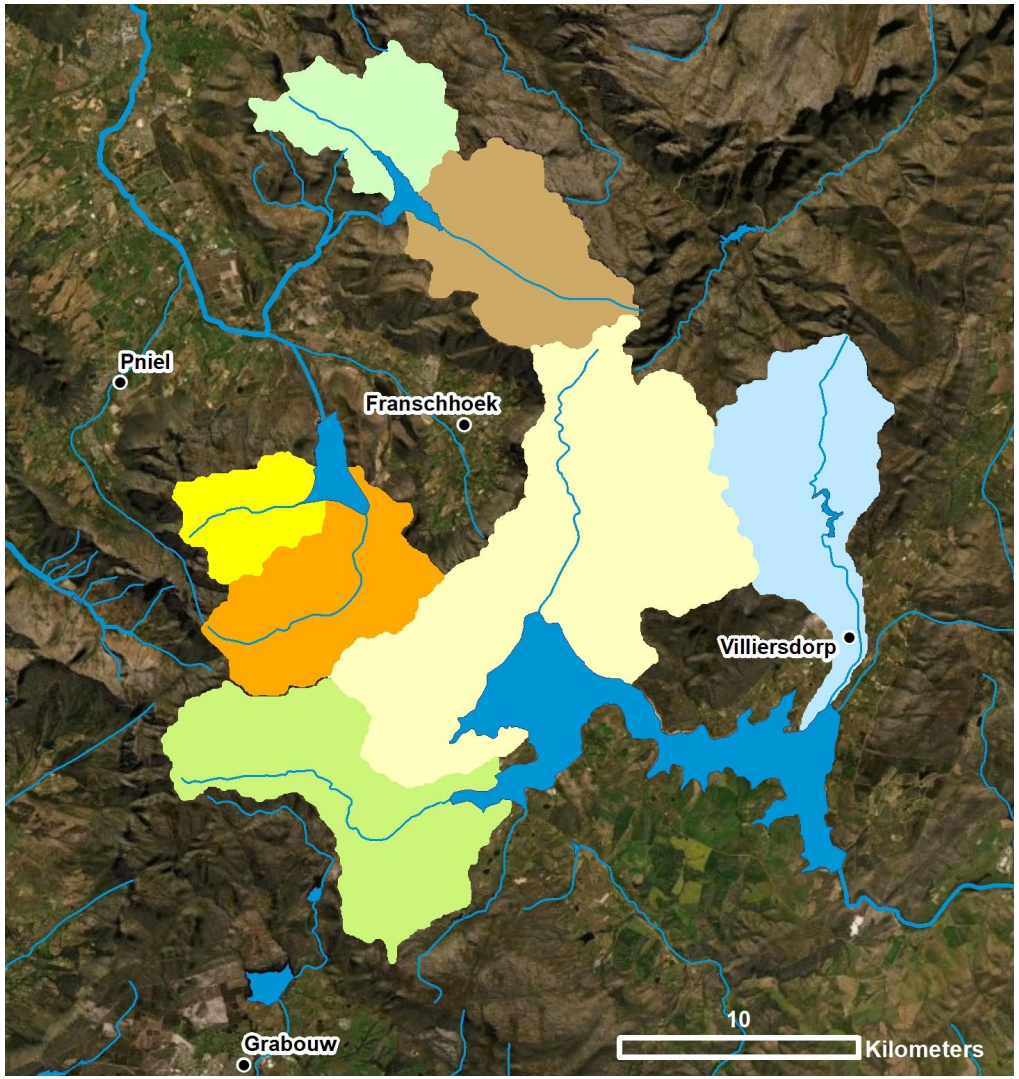
GCTWF: Interim Governance structure

Steering committee

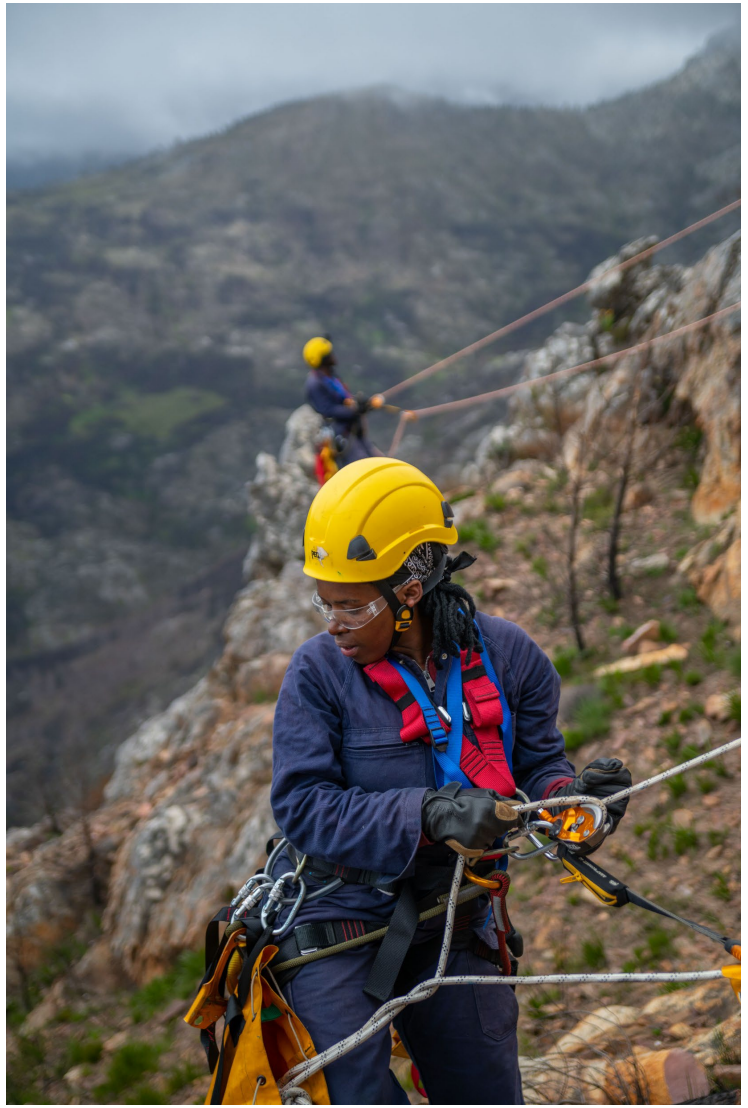
TNC Secretariat

- **Data & Ops Working Group**
- **M&E Working Group**
- **Finance Working Group**

GCTWF: Implementation through collective action



TNC and CCT
TNC and CCT
WoF-HAT
WWF and WoF-HAT
TNC and CapeNature
TNC and CapeNature
TNC and CapeNature
Dams
Rivers

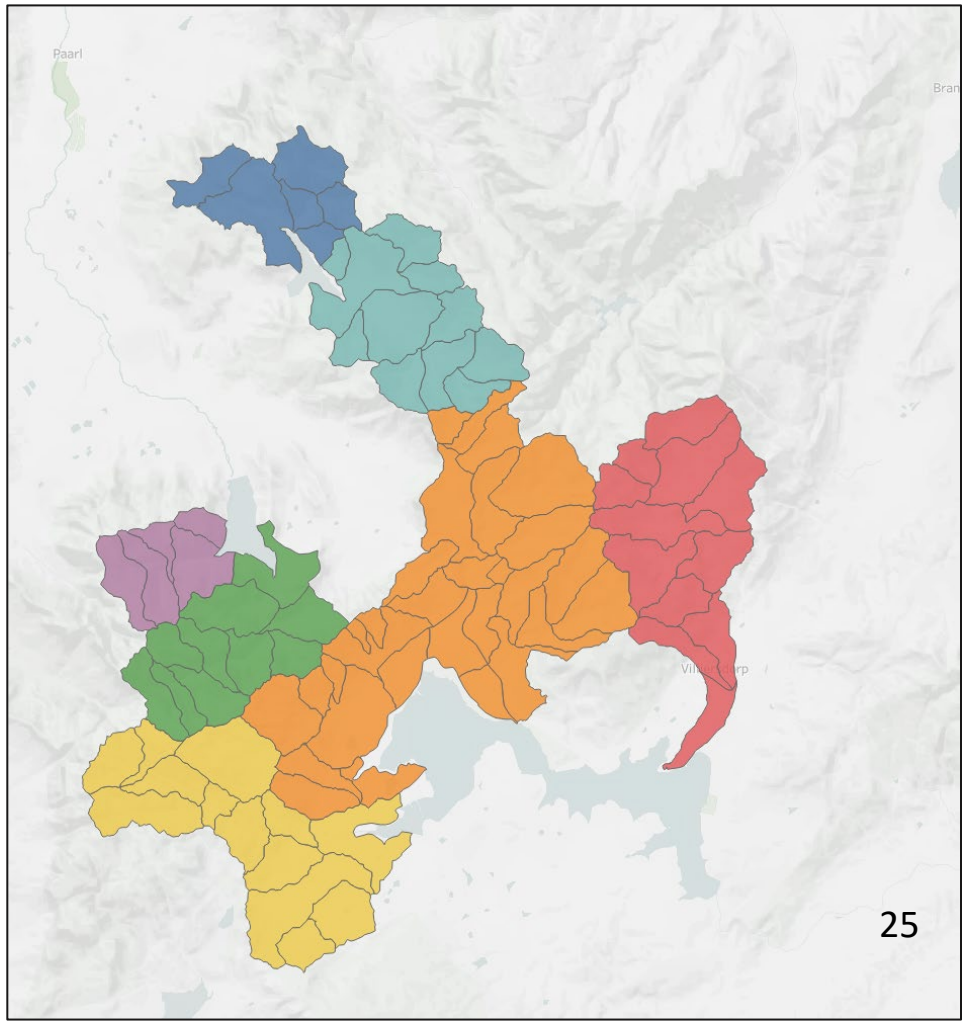


GCTWF: Decision Support System

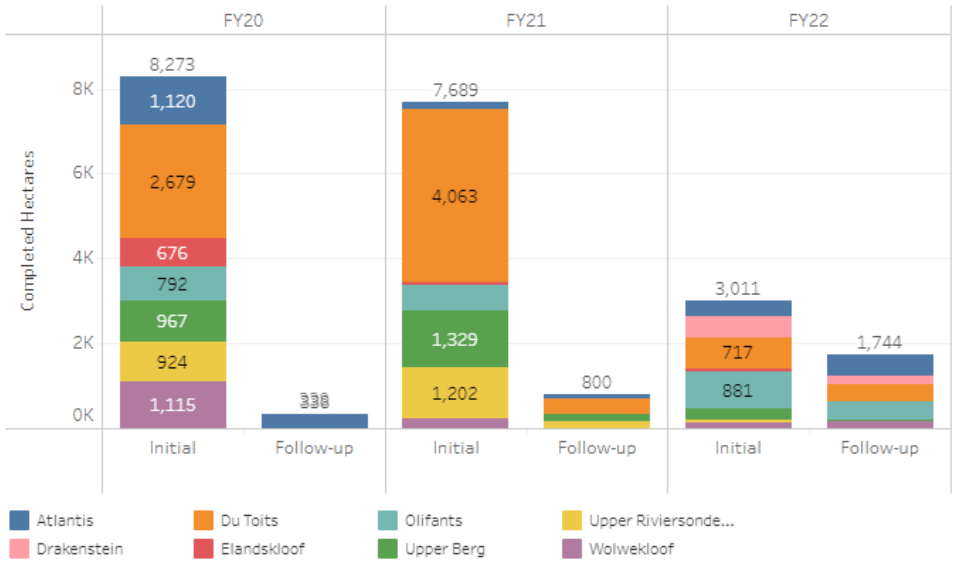
1. **Scenario modeler** estimates benefits and costs under different funding assumptions
2. **Financial model** incorporates program management costs and benefits monetization to arrive at full-cycle return on investment
3. **Online visual platform** ongoing implementation tracking and reporting of estimated realized benefits.

https://public.tableau.com/app/profile/waterfunds

The Seven Priority Sub-Catchments were divided into Hydrological Management Units



Summary Progress: Completed Actuals by Sub-catchment



Sub-catchment	Total Ha	Completed Ha	Completed %
Atlantis	4,745	1,675	35.3%
Drakenstein	5,357	505	9.4%
Du Toits	16,387	7,459	45.5%
Elandskloof	6,062	830	13.7%
Olifants	9,252	2,271	24.5%
Upper Berg	5,556	2,546	45.8%
Upper Riviersonderend	7,315	2,201	30.1%
Wolwekloof	3,454	1,487	43.0%
Grand Total	58,128	18,974	32.6%

mary: Full History

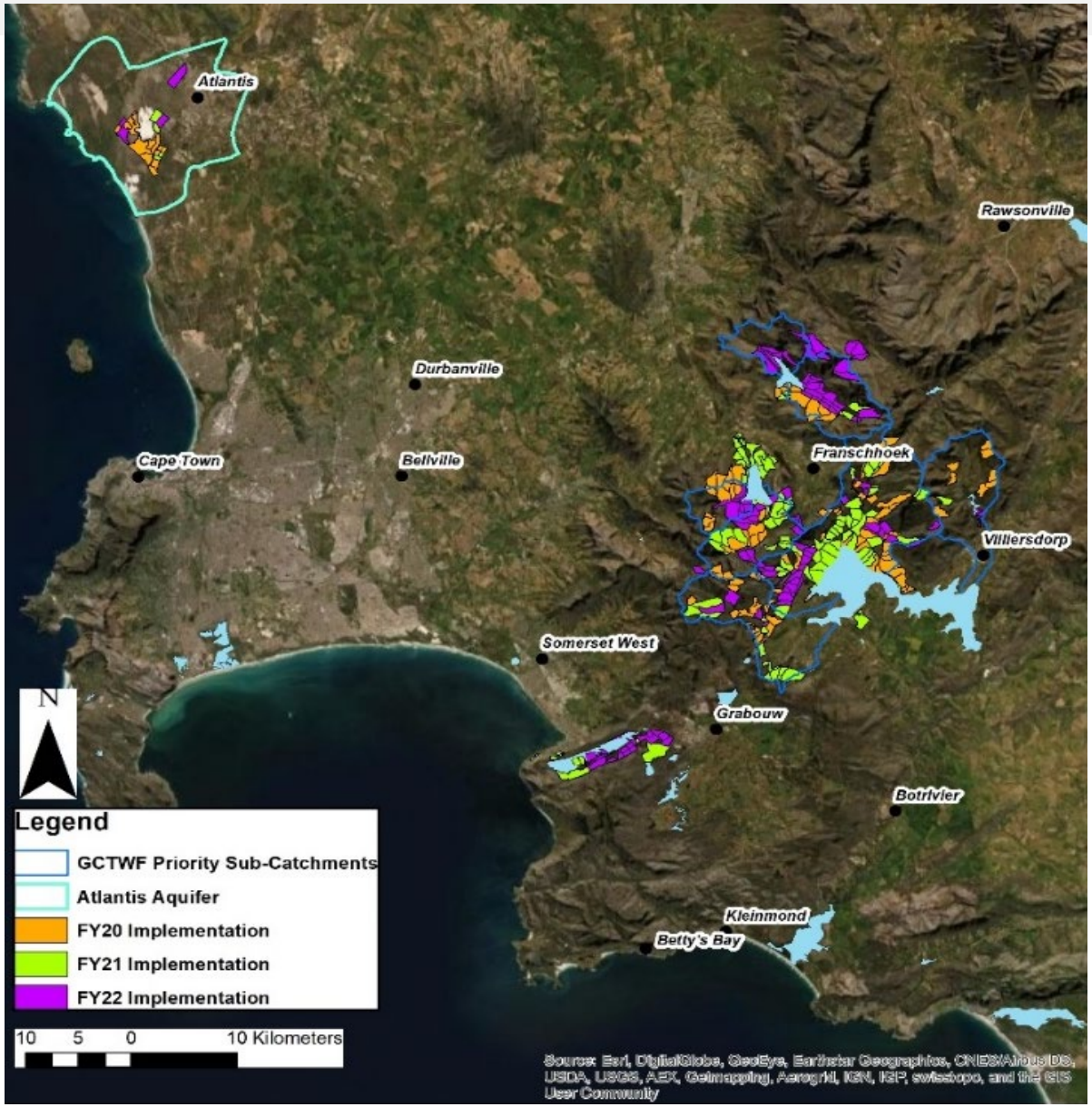
Geo View

ummary by Implementer

	FY20		FY21		FY22	
	Budget	Hectares	Budget	Hectares	Budget	Hectares
	R1.5M	2,048				
					R2.1M	1,301
	R6.6M	4,031	R9.5M	5,962	R3.6M	1,254
		1,577	R0.3M	1,001		325
	R1.5M	617	R1.4M	726	R0.4M	131
	R0.1M	338			R1.1M	1,113
			R0.7M	541	R0.6M	419
				139		211
			R0.2M	120		
	R9.7M	8,611	R12.1M	8,489	R7.9M	4,756

GCTWF: Progress to date

- Hectares cleared: 21,855 hectares
- Initial hectares cleared: 18,973 hectares
- Follow-up hectares cleared: 2,882 hectares
- Water benefits: 10 billion liters per year (27 MLD)
- Green job opportunities created: 475



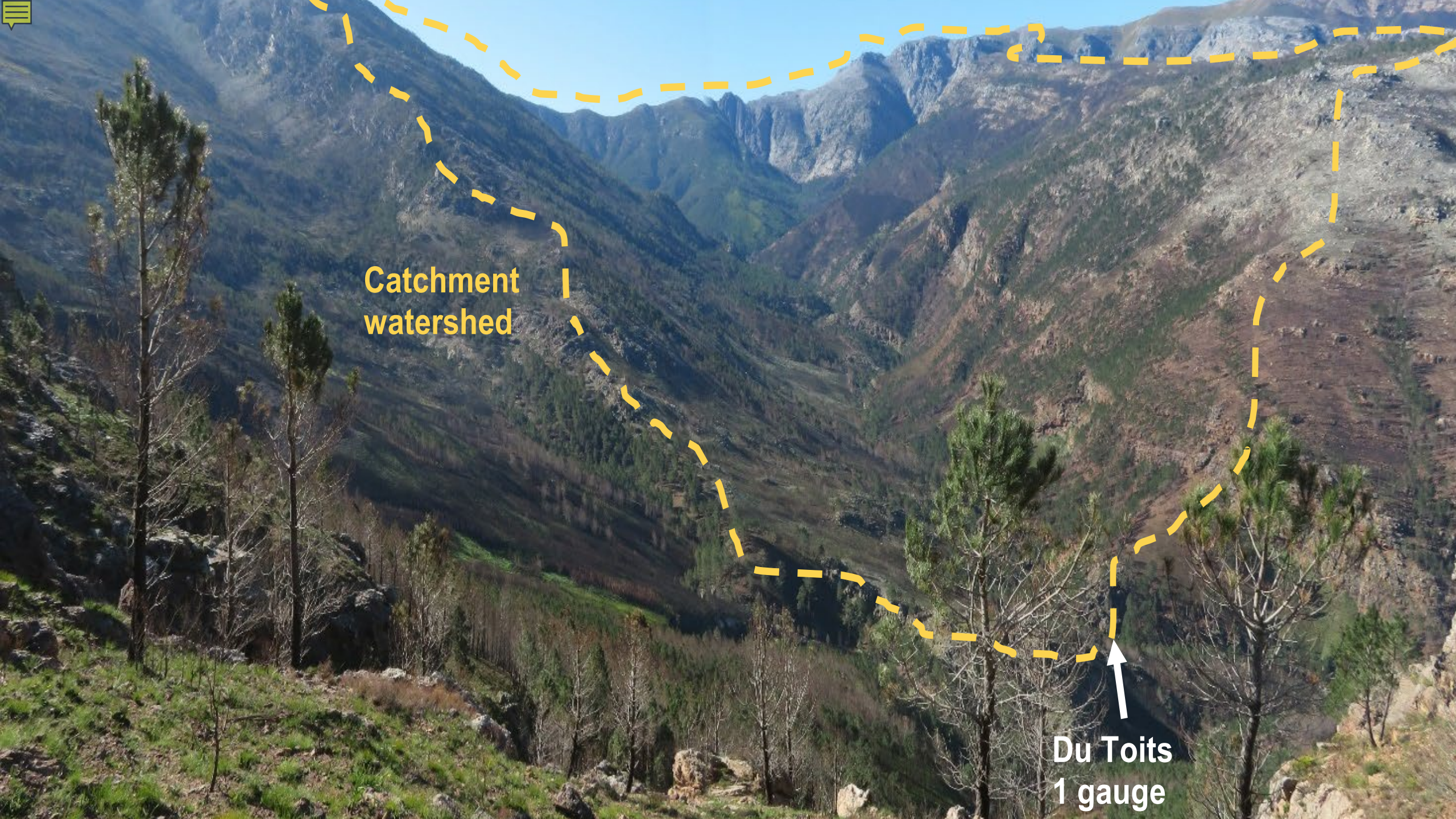
GCTWF: Monitor impacts of activities

Current State

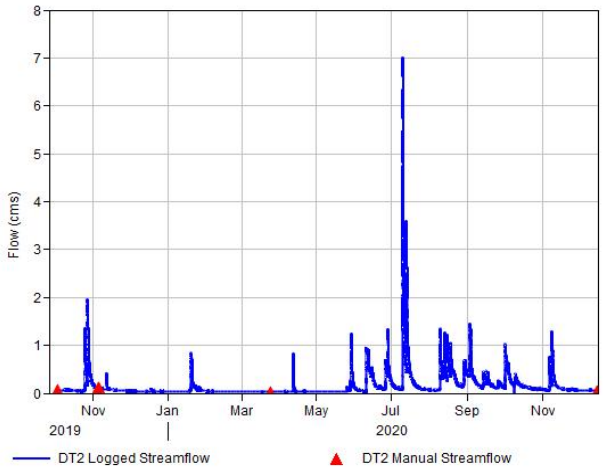
55 billion liters **lost** every year
= 2 months water for Cape Town

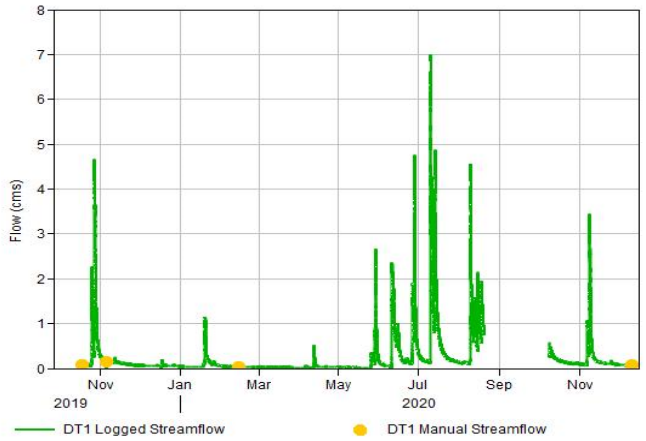
Desired State

By 2025, **reclaim** 55 billion liters/year


Catchment
watershed
Du Toits
1 gauge

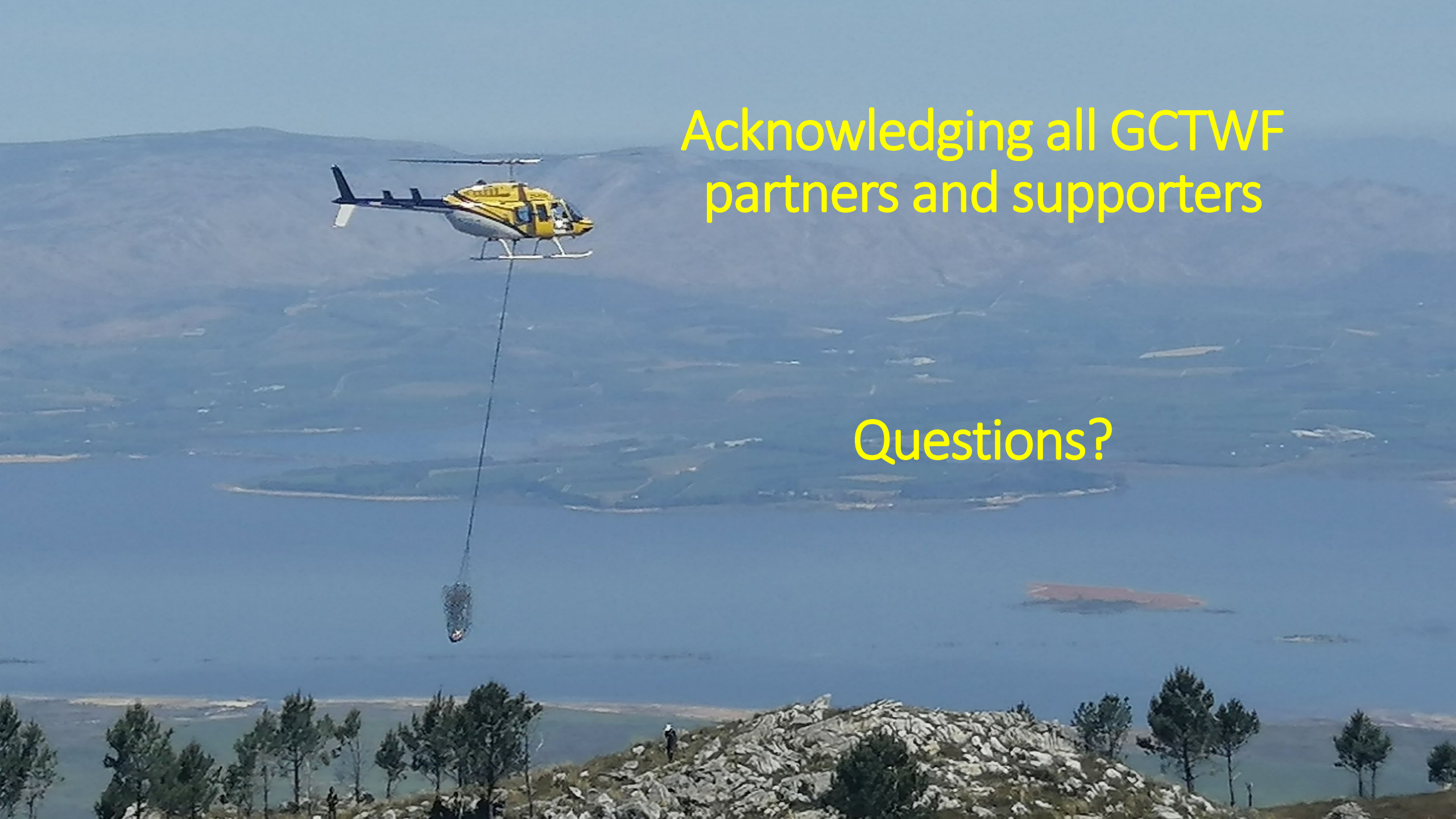
GCTWF: Measure: Rainfall, Water Levels, Temperature, Turbidity, Flow





GCTWF: Partnership success factors

- Common ground
- Co-ownership, shared responsibility and commitment
- Opportunities for interaction
- Transparent, flexible mindset
- Meaningful, effective, enduring collaborative processes
- Innovate, demonstrate progress
- Monitor progress, adapt plans



Acknowledging all GCTWF partners and supporters

Questions?