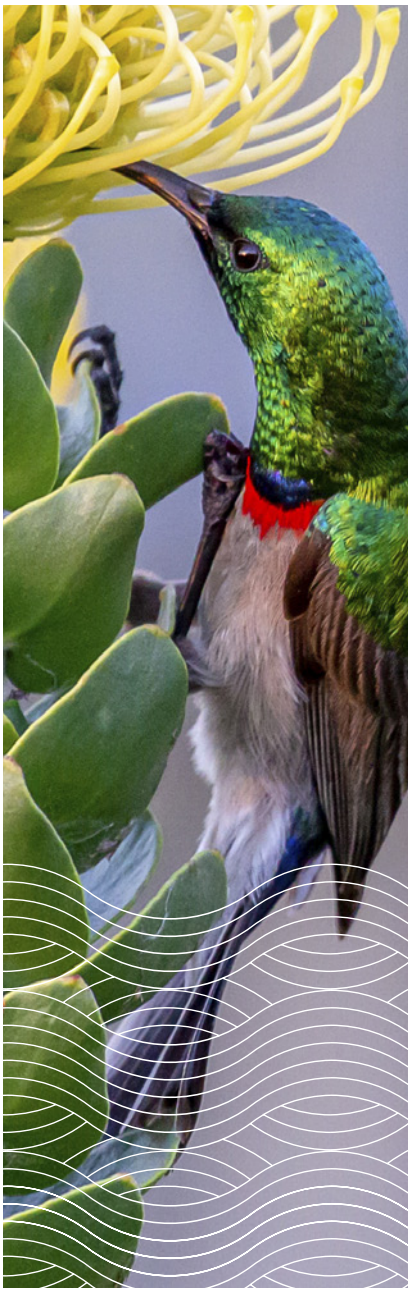
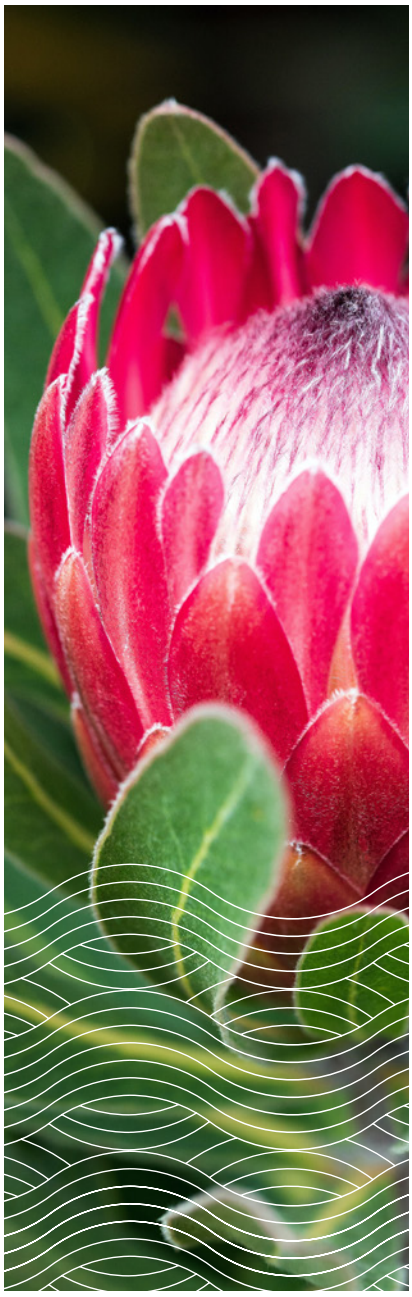
The Nature Conservancy

Greater Cape Town Water Fund

SECURING WATER THROUGH NATURE-BASED SOLUTIONS

December 2022 Update





Applying nature-based solutions can reclaim 100 billion litres of water annually for the Greater Cape Town Region by 2045.

Cape Town made international headlines in 2018 when, following a prolonged drought, the region faced running out of water. To avoid 'Day Zero', severe water restrictions were introduced to curtail consumption and stretch the fresh-water supply until the winter rains. This disrupted daily life and devastated the region's agriculture, tourism industry, and smaller municipalities. To meet the growing demand and increase resilience to climate change, the City of Cape Town explored seawater the potential of desalination, deep aquifer drilling, water re-use, and ways to increase storage capacity.

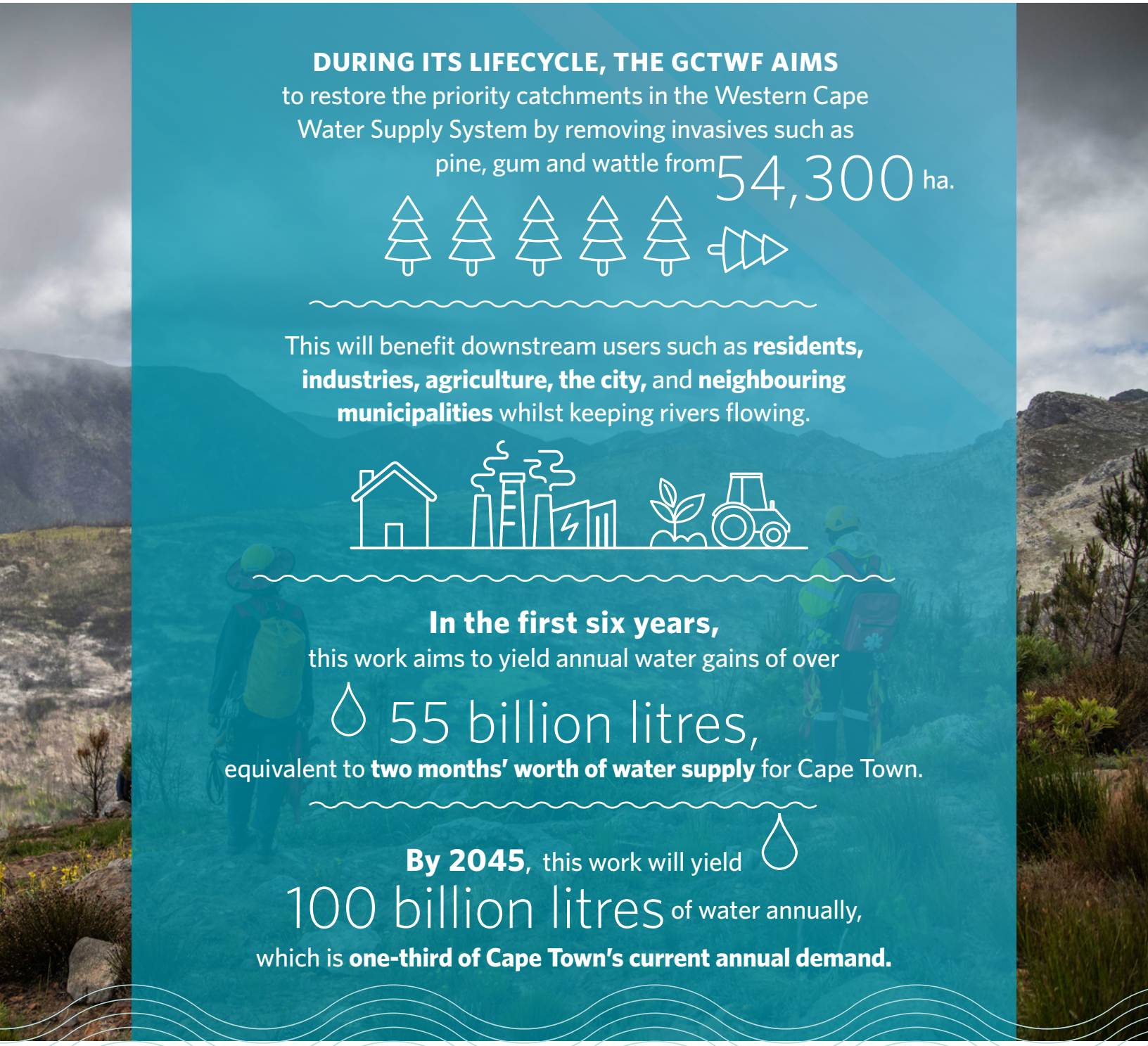
Most of South Africa's fresh water supply comes from surface water dams. Increasing that supply requires optimizing the ecosystem's ability to return water to nature. A significant challenge is the proliferation of invasive alien plants (IAPs) that flourish in the absence of their natural enemies and crowd out water-wise, indigenous vegetation. These plants use significantly more water, and removing them in key catchment areas will increase the water captured by the region's water supply system. With predictions of decreased rainfall and higher temperatures, it is essential to remove water-guzzling invasive species and protect water at the source.

Over the last 20 years, millions were spent to control IAPs in Greater Cape Town's catchments. However, despite valiant efforts, the problem worsened and, frustratingly, the catchments continued to be invaded with IAPs.

Motivated by the desire to try a different approach and to catalyze collective action, the Greater Cape Town Water Fund (GCTWF) began in 2017 as a collaboration between the City of Cape Town and The Nature Conservancy (TNC). The effort began with a feasibility study and business case. From the outset, the GCTWF has been guided by science, leveraging local knowledge to identify and work in locations that are difficult to access but that have high replenishment value. Today, the GCTWF is a global model for implementing nature-based solutions to protect source water areas at scale.

The Greater Cape Town Water Fund's Strategy

Led by TNC, the GCTWF is a partnership of diverse stakeholders. Focused on long-term goals, the water fund mechanism allows for partners from the public and private sectors to coordinate efforts and leverage their collective expertise for enhanced impact. The GCTWF's implementation has a 30-year timeline that will reclaim lost water, reduce fire risk, and protect biodiversity while creating green job opportunities .



DURING ITS LIFECYCLE, THE GCTWF AIMS
to restore the priority catchments in the Western Cape Water Supply System by removing invasives such as pine, gum and wattle from 54,300 ha.

This will benefit downstream users such as **residents, industries, agriculture, the city,** and **neighbouring municipalities** whilst keeping rivers flowing.

In the first six years,
this work aims to yield annual water gains of over
55 billion litres,
equivalent to **two months' worth of water supply** for Cape Town.

By 2045, this work will yield
100 billion litres of water annually,
which is **one-third of Cape Town's current annual demand.**

Progress of the Greater Cape Town Water Fund

AS OF DECEMBER 2022,

the GCTWF's implementing partners completed the initial clearing on **27,283 hectares**

and follow-up clearing (essential to protecting the original investment and avoiding re-establishment of invasives) on **9,328 hectares**

The successful track record of the GCTWF demonstrates how collaboration can **build, scale,** and **maintain** large-scale, highly technical IAP removal operations in remote areas.

FROM A SMALL PILOT PROJECT STARTING WITH 10 WOMEN IN 2018,

the GCTWF has created over **570** green jobs.

About **40%** are held by women.

OF THESE JOBS,

142 are high-angle technicians, including **54** women, who undergo extensive preparation to work safely in remote, high-value locations.

ALL THOSE EMPLOYED THROUGH THE GCTWF RECEIVE TRAINING

that improves their skill set and future employability. A socioeconomic survey found that on average, one job with the GCTWF supports four individuals, providing stability to their household.

THE GCTWF'S SUCCESSFUL SCALE-UP CAN BE ATTRIBUTED TO

the pooling of resources, support from stakeholders, and the commitment of the high-angle team members who do the hard work of removing IAPs.

Science in Practice

Key to the long-term success of the GCTWF is the holistic, rigorous monitoring and evaluation program which tracks the impacts of implementation efforts. In addition to water reclamation benefits, the program monitors biodiversity (both freshwater and terrestrial) and socio-economic outcomes. The efficacy and cost effectiveness of different control methods are continually compared for ongoing strategy refinement. The online Decision Support System tracks progress against targets, guides operational planning and fosters alignment amongst the GCTWF implementing partners.

Additionally, the GCTWF is exploring how integrating fire and biological control with current manual control at scale could support long-term maintenance and restoration. Selecting and implementing the appropriate combination of control methods is invaluable to preserving the investment into the long-term restoration of catchments. Restoration will be tracked through satellite imagery and vegetation monitoring plots designed to assess fynbos recovery over time.

THE GCTWF IS A POWERFUL TOOL FOR CONSERVATION OF THE CAPE FLORAL REGION'S UNIQUE BIODIVERSITY.

THERE ARE OVER **9,000** plant species in the fynbos biome.

OF THESE PLANT SPECIES about **70%** are found **NOWHERE** else on Earth.

1,736 fynbos plant species are identified as **threatened,** and a further **3,087** as species of **concern**.

24 of the **27** **freshwater fish species** found in the Cape Floral Region are found nowhere else in the world.

These **fynbos fish** occur in isolated rivers and streams and have geographically constrained ranges. Many now swim on the **edge of extinction.**

The Future of the Greater Cape Town Water Fund

The GCTWF is a collaborative body and aims to become an independent entity. Design of the entity will fall under the auspices of the GCTWF steering committee. Technical support is being provided by the Nature for Water (N4W) Facility, which was established by The Nature Conservancy (TNC) and Pegasys to accelerate water fund development across the globe. The N4W Facility is identifying a sustainable funding mechanism for full cost implementation over the 30-year lifespan of the GCTWF.

To secure the investment and ensure there is continuity, TNC will continue to play a supportive function, transferring the necessary skills for the new entity to be successful. This will ensure there is momentum, and the entity will benefit from TNC's operational and science support.

The GCTWF will continue to facilitate collaboration among diverse stakeholders in the landscape. Key partners include the Boland and Grootwinterhoek Strategic Water Source Partnership; national and provincial government; the local government, including the City of Cape Town; and the private sector, including corporate water stewards. This inclusive collaboration not only provides strong governance and guarantees relevance in the local context, but it also demonstrates how blended financing from public and private donors can be leveraged for universal benefit.

CURRENT MULTI-STAKEHOLDER STEERING COMMITTEE

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

water & sanitation
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

SANBI
Biodiversity for Life
South African National Biodiversity Institute

Western Cape Government

CapeNature

CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Remgro Limited

Coca-Cola

Coca-Cola Peninsula Beverages

PEPSICO

NEDBANK

WWF

The Nature Conservancy

How to Get Involved

Realizing the full vision and benefits of the GCTWF requires a meaningful investment.

30 YEAR

The full **30-year program** of the GCTWF will cost R680M/$45M

The first six years of high-impact clearing will total R372M/$25M

Securing this supply of water through grey infrastructure would cost 5-12x more

To date, TNC has raised over 50% of the high-impact phase funding and will look to secure the remaining funding by 2025.

Ensuring there is a **sustained, reliable flow of funding over the long-term maintenance** clearing period is critical to protecting the original clearing investment and supporting the objectives of the water fund.

The Nature Conservancy

To learn more about the GCWTF please visit
www.nature.org/africa-water
or email Louise Stafford, South Africa Program Director,
louise.stafford@tnc.org

Photographs by Roshni Lodhia. Sunbird photograph by Gareth Jones.