



Building water resilience: Investing in alternative water sources and improving water-efficiency

Southern Sun Hotel: Newlands

1 Purpose

Cape Town experienced a severe drought between 2015 - 2018, and climate projections indicate that these events are likely to increase and worsen in the near future. Water demand is also projected to increase and may surpass supply if no additional measures are taken to address this threat. Water users, particularly businesses, are encouraged to invest in water conservation measures and in alternative water sources in order to build water resilience. The Southern Sun Newlands Hotel has been consistently improving water resilience, but the 2017 drought encouraged the hotel to invest more in water efficient practices in order to secure business security, and mitigate against future risks associated with water shortages and hiked tariffs.

This case study is written for:

- Cities and businesses looking to improve their sustainability and implement effective water saving measures.
- Businesses looking to invest in innovative water saving methods and reduce their water bill without jeopardising their profits.
- Cities and businesses looking to build economic and water resilience in the event of acute climate change stresses and shocks
- Funders, businesses and other stakeholders seeking to replicate similar initiatives in order to enhance water resilience.
- Businesses wanting to gain recognition from their cities and communities for their water resilient adaptation measures as well as influence other business to do the same.



What is water resilience?

In human terms, resilience refers to:

“the ability of an individual to recover from setbacks, adapt well to change and to keep going even when facing difficult circumstances”.

A resilient Cape Town is a compassionate, connected, and capable city, where Capetonians collaborate across households, communities and institutions, to build collective responses to the current and future social, environmental and economic challenges.

This case study highlights the measures implemented by the Southern Sun Newlands hotel in building water resilience, their business case, and the recognition received from the City of Cape Town via its **Water Star Rating certification**.

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Background

The drought impacted the tourism sector, which is one of the key economic drivers in the Western Cape, particularly the City of Cape Town. The drought led to a decline in tourism as well as a decline in tourist spending. This resulted in a loss of revenue. Water is an essential component for tourism development as it is used for cleaning, drinking, washing, bathing, swimming, gardening and cooling, among other things.

The drought highlighted the vulnerability of businesses to water related risks, and fast-tracked the adoption of innovative solutions, technologies processes and techniques to manage water use as Cape Town embarks on the resilience journey. GreenCape as part of the Economic Security Workstream which comprised of the Western Cape Government, the City of Cape Town, Wesgro, and other key stakeholders worked closely with businesses during the drought to improve their economic resilience and that of the Western Cape economy. A Water Resilience Journey was mapped out and it proposed a number of interventions that can be implemented in each step of the journey (Figure 1). The Southern Sun Newlands Hotel is one example of many businesses that have embarked on the water resilience journey through water use behavioural changes, implementation of water efficiency interventions, and the installation of alternative water sources.

The waterskloof Dam during the Cape drought.

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Key insights



- To improve water resilience, hospitality and tourism industries should work collaboratively with their stakeholders.



- Unforeseen pandemics and climate change shocks, such as drought can cause devastating impacts on businesses and livelihoods.



- A systematic approach to implementing water saving interventions should be followed, starting with the easiest, least expensive initiatives, as outlined in Figure 1.



- Stakeholder engagement and collaboration not only across different departments of a company but within a city is important to promote sustainability and water resilience.



- Simple, low-cost interventions such as awareness raising, water monitoring and metering, and implementing water efficiency interventions can reduce water consumption by 40% in a hotel.



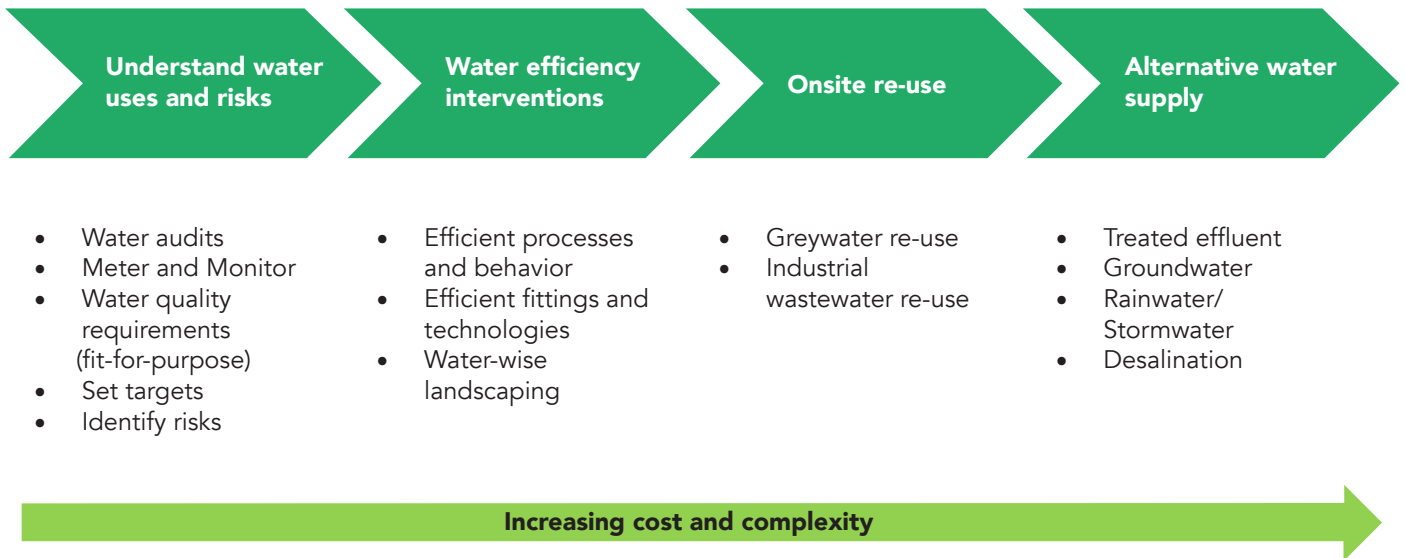
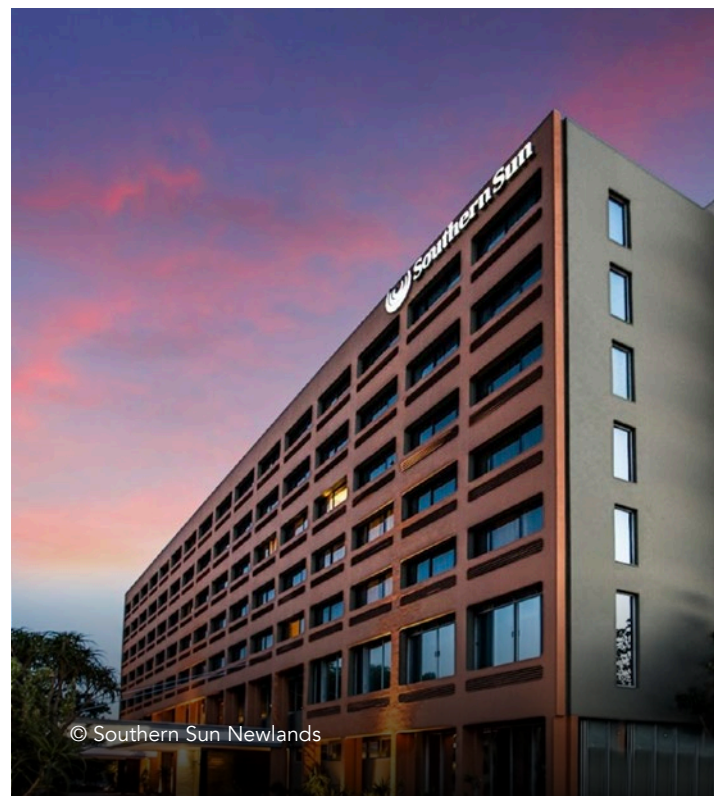


Figure 1: Water Resilience Journey

4 Business overview

Southern Sun is the leading hospitality company in southern Africa. Combining an established 50-year heritage with a professional and energised approach, the group proudly encompasses over 100 hotels across all sectors of the market in South Africa, Africa, the Seychelles and the Middle East. This case study focuses on the Southern Sun Newlands hotel which comprises of 162 rooms, 9 conference venues and a restaurant, with an average of 150 to 250 guests on a daily basis.

As part of the hotel's efforts to be a good corporation, it encourages their guests and local communities to adopt responsible attitude towards using water. The hotel also champions opportunities to inform people about the importance of reducing their environmental impact by organising clean-ups, tree planting and urban improvement projects through the Southern Sun Volunteers programme. The hotel has a low environmental impact due to the service nature of the hotel industry. However, it is subject to the general impacts of climate change and makes every effort to manage the operations with due care and consideration for the environment. Using natural resources, minimising carbon emissions and conscientiously disposing of waste are important for long term sustainability. Environmental management practices are integrated into its core business strategy. The environmental steering committee assesses and manages climate-related risks and opportunities to ensure the hotel's conduct meets present needs while minimising the cost to future generations.



5 Solution

The hotel improved its water resilience by promoting behavioural change and implementing water efficiency measures. These included:



- Removing all bath plugs to encourage guests to use the showers.



- Each department was involved in efforts to reduce consumption and wastage and good results were recognised.



- Water shortage signage was placed in all public areas and rooms in order to encourage water saving



- Reducing the flow on all outlet taps, shower heads and toilets by installing flow devices



- At one stage buckets were placed in the bathrooms for guests who wanted to reuse shower water to flush the toilet



- Monitoring leaks on a daily basis by conducting inspections and monitoring via smart meters to prevent water loss



Figure 2: The water filtration plant installed at the Southern Sun hotel in Newlands

The 2015 - 2018 drought conditions encouraged the hotel to explore alternative water augmentation strategies. The hotel took advantage of its unique location by using the natural aquifers in and around Newlands, Cape Town. The hotel installed a water treatment plant (Figure 2) in 2018 where groundwater is upgraded to potable standards to be used in the hotel. This plant was installed at a capital cost of ~R2 million and enabled the hotel to function completely off the water grid. Southern Sun Newlands obtained the necessary permissions from the Department of Water and Sanitation and City of Cape Town to legally and safely provide water services to their guests. The hotel sustained its maximum water demand of 40–50kl per day using ground water.

6 Impact

The current climate conditions have brought with it a water shortage challenge across the city. Tourism and Hospitality businesses use a lot of water in their day-to-day operations and should implement good practices to minimise its use for both environmental and financial reasons. Southern Sun hotels are leading the way in this regard for the hospitality industry, and business at large. They have reduced their water consumption by over 40 percent, and have successfully implemented a number of initiatives within their hotels that will continue to have an impact on saving water. By reducing their water-use, they have also noticed a reduction in hot water use and therefore also saving on their energy consumption. Installing aerators and flow restrictors on showers and taps in the hotels has meant that the water flow per tap has drastically reduced from approximately 20 litres of water per minute to less than 9 litres of water per minute, in some cases even less. Removing table cloths from restaurants and

replacing linen serviettes with good quality paper napkins has resulted in saving almost 4 000 litres of water per day. By installing low water use equipment, businesses can reduce water consumption without any negative impact on customer service. This is a key principle in the tourism and hospitality sector. The hotel staff continue to think of and implement innovative ways on how to save water, and everyone in the hotel is tasked with identifying new areas of possible savings. More importantly, with the Southern Sun Newlands hotel going off the grid means that they are taking the water they would ordinarily use and allowing it to remain in the system for the greater Cape Town area, helping the city to use their water where it's needed most. Southern Sun Newlands hotel remains committed to saving water and have a firm focus on implementing measures that will not only have a positive impact in the current situation but will also contribute to long-term sustainable and effective water use.

By continuing to adopt the above mentioned water saving measures, the hotel hopes to influence other businesses and communities to also practice environmental awareness. It is important for the Cape Town business community to be aware of the current and future climate change patterns and the resulting climatic stresses and shocks. This will enable business to make well informed decisions on building their resilience and preparing their businesses for harsher climate events.

The Southern Sun Newlands hotel was nominated amongst 18 companies for the 2022 City of Cape Town's water star rating programme. The programme awards Cape Town based companies with a star rating certificate based on their water saving practices. The hotel was recently rated four-stars at the City of Cape Town's water star rating ceremony for their innovative and consistent water-saving practices. The hotel aims to achieve five stars in the near future and has already begun limiting water pollution by redirecting their effluent for irrigation purposes.

Prospective participants who would like to apply for the Water Star Rating assessment can do so either by using the online application form or by emailing

waterpollution.control@capetown.gov.za.



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Lessons learned and opportunities

🔄 The promotion of behavioural change and investing in low flow devices in hotels can significantly reduce consumption by 10–15%.

🔄 Although installing an alternative water source requires capital investment, it promotes resilience and has a good business case.

🔄 Businesses must continuously invest in building water resilience and not only respond during drought conditions.

🔄 The City of Cape Town water star rating awards encourage and recognise companies who are improving their water resilience.



Refer to: <https://www.greencape.co.za/content/tag/resilience>

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