

SWARTLAND MUNICIPALITY



Main insights

- Water could significantly constrain Swartland Municipality's (SM) future development due to high urban growth and a large concentration of high-value irrigated crops. By 2040, SM's water deficit may cost R12.8 billion per year, 190% of the current economy, and 68 091 jobs per year, 190% of current employment.
- In the absence of significant new supply options, and with 156% growth in urban water requirements by 2040, SM should decouple population growth and water consumption through water conservation and demand measures.

POPULATION

133 762

in 2016

3.3%

(Population Growth 2011-2016)

GDP & EMPLOYMENT

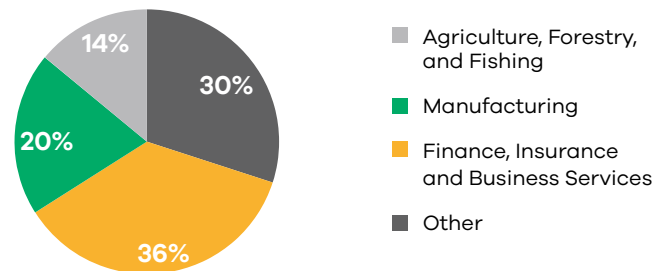
3.7%

GDP growth rate, 2005-2013

-1,8%

employment growth rate, 2005-2013

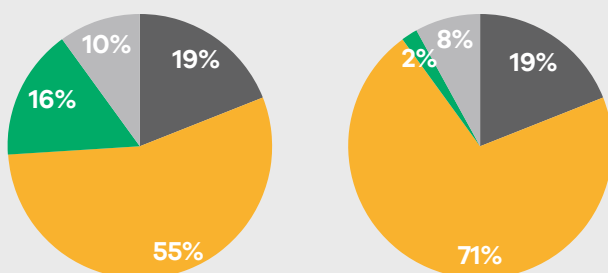
LARGEST 3 SECTORS (2013)



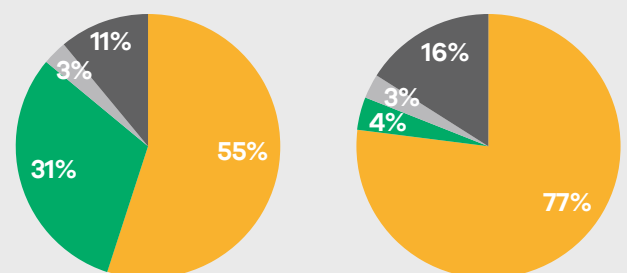
What is the water intensity of the Swartland economy?

Water intensity is the volumes of water used per unit of value added to the economy, with some sectors in an economy using more water than others to produce goods and services of the same value. SM is the Berg WMA municipality second most reliant on high and moderate water intense sectors, including agriculture and agri-processing, comprising 50% of municipal Gross Value Add (GVA) and 40% of employment. The municipality has a large concentration of high-value irrigated crops, with grapes consuming 92% of all irrigated water in SM. SM, Drakenstein and Stellenbosch are the highest irrigated water users in the region.

GVA by water intensity of sectors



Employment by water intensity of sectors



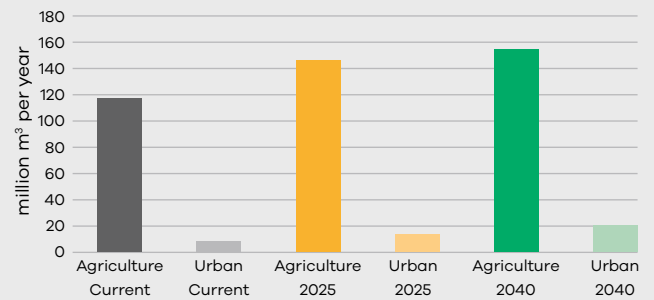
■ Low water intense sectors
 ■ Agriculture
 ■ Other heavily water intense sectors
 ■ Moderately water intense sectors

How will water demand change in the future?

Climate change is expected to increase SM's agricultural water requirements by 32% in 2040. The water needed for grapes, the most important crop in the region, will increase by 34% by 2040. Primarily driven by the grape industry, SM, Drakenstein and Stellenbosch will continue to need the most irrigated water in the Berg WMA in 2025 and 2040.

SM's population growth is the highest in the region at 3.3% and will significantly increase its water requirements. With 156% growth in urban water demand by 2040, SM will be the municipality with the highest growth in urban water demand.

Irrigated agriculture and urban water requirements per year



What is the expected growth in water demand by 2040?

156% SWARTLAND

59% BERG WMA

URBAN DEMAND

32% SWARTLAND

33% BERG WMA

AGRICULTURAL DEMAND

39% SWARTLAND

45% BERG WMA

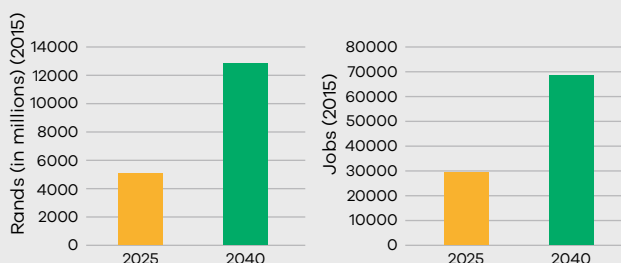
TOTAL DEMAND

How much will the future supply deficit cost Swartland?

SM's total water supply deficit is estimated to be 34.4 million m³ per year by 2025, 25% of the Berg WMA's entire water deficit. By 2040, the water deficit may increase to ~50 million m³ per year, 16% of Berg WMA's total water deficit. Swartland, Drakenstein and Stellenbosch will be significant contributors to the regional deficit, driven by irrigated water requirements and high population growth. Constraints on

water supply will have a significant economic impact with significant costs to GVA and employment originating from the opportunity costs of both the agriculture and urban water deficit. By 2040, the water deficit could cost the local economy ~R12.8 billion per year, 190% of the local economy's current size, and 68 091 jobs per year, 190% of the current local employment.

Value of water supply deficit



GVA deficit

	SWARTLAND	BERG WMA
2025	76%	33%
2040	190%	7%

Employment deficit

	SWARTLAND	BERG WMA
2025	83%	7%
2040	190%	38%

For more information and support, call GreenCape's water team on 021 811 0250 or email water@greencape.co.za



This municipal snapshot is the result of a broader study and can be read in conjunction with the policy brief; A case for integration: water resource and development planning in the Berg Water Management Area which was funded by the Water Research Commission and The Western Cape Government's Department of Economic Development and Tourism. The policy brief is freely available here: <https://www.greencape.co.za/content/focusarea/water-for-sustainable-development>