

DRAKENSTEIN MUNICIPALITY



Main insights

- Water will be a significant constraint to future development in Drakenstein Municipality (DM) due fast urban growth, climate change and the large concentration of high-value irrigated crops, primarily wine grapes and stone fruits.
- The DM's urban water requirements may grow by 129% by 2040 and will put critical pressure on the water supply. In the absence of significant new supply options, DM should decouple population growth and water consumption through water conservation and demand measures.

POPULATION

280 195

in 2016

2.2%

(Population Growth 2011-2016)

GDP & EMPLOYMENT

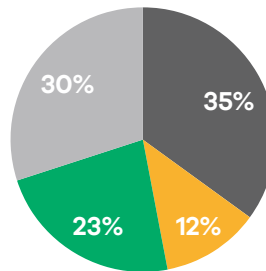
3.0%

GDP growth rate, 2005-2013

-1.0%

employment growth rate, 2005-2013

LARGEST 3 SECTORS (2013)

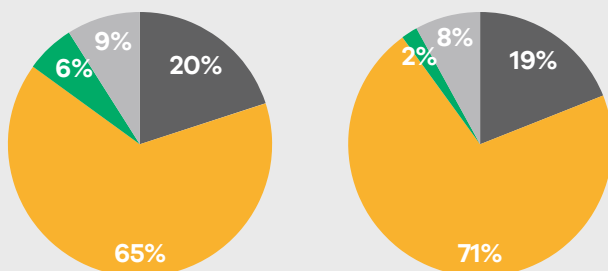


- Finance, Insurance and Business Services
- Manufacturing
- Wholesale and Retail Trade, Catering and Accommodation Services
- Other

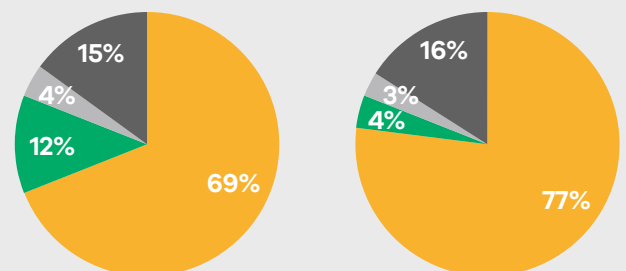
What is the water intensity of the Drakenstein economy?

Water intensity is the volumes of water used per unit of value added to the economy, with some economic sectors using more water than others to produce goods and services of the same value. DM's moderate and heavily water intense sectors, agriculture, agri-processing, transport and construction make significant contributions to DM's Gross Value Add (GVA) and employment. DM has the highest total water requirement outside of Cape Town. It is the biggest irrigated water user with a large concentration of high-value irrigated crops. Grapes consume 80% of all irrigated water in the municipality.

GVA by water intensity of sectors



Employment by water intensity of sectors



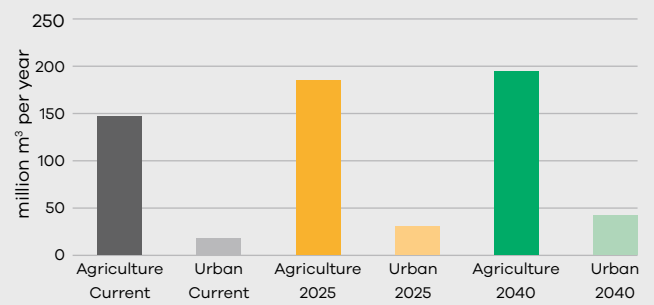
■ Low water intense sectors ■ Agriculture ■ Other heavily water intense sectors ■ Moderately water intense sectors

How will water demand change in the future?

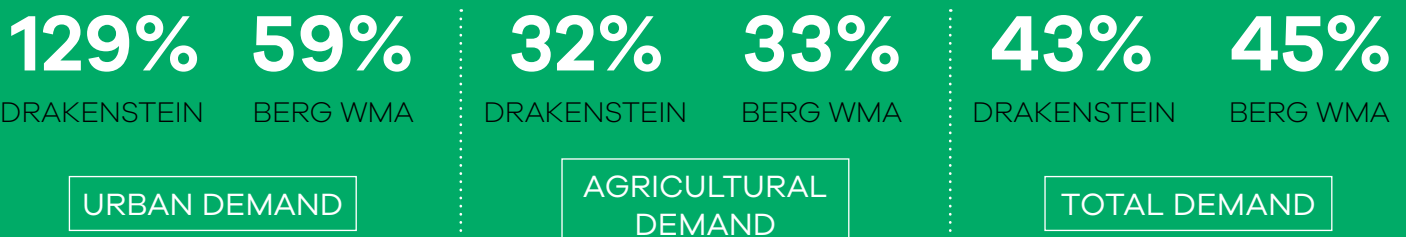
Climate change is expected to increase DM's agricultural water requirements by 32% between 2015 and 2040. By 2040, grape and stone fruit water requirements will increase by 34% and 29%, respectively.

Population growth is among the highest in the region at 2.2% and will significantly increase water requirements. By 2040, DM's urban water requirements will grow by 129% and will be the highest of all Berg WMA municipalities outside of Cape Town.

Irrigated agriculture and urban water requirements per year



What is the expected growth in water demand by 2040?

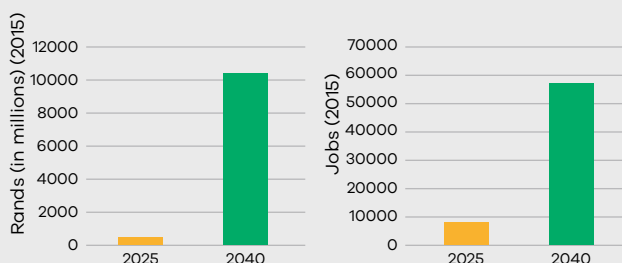


How much will the future supply deficit cost Drakenstein?

DM's total water supply deficit is estimated to be ~34.1 million m³ per year by 2025, 24% of the Berg WMA's entire deficit. By 2040, the water deficit is estimated to increase to ~57.9 million m³ per year. Despite significant population growth, DM will not surpass its urban water allocation by 2025. However, after 2025, when urban growth becomes a major contributor to the water supply deficit, constraints

on water supply will have a significant economic impact with the most significant costs to GVA and employment originating from the opportunity costs of the urban water deficit. By 2040, the water deficit is estimated to cost the local economy ~R10.5 billion per annum, 58% of the current size of the local economy, and 57 218 jobs per annum, 62% of the current size of local employment.

Value of water supply deficit



GVA deficit

	CAPE TOWN	BERG WMA
2025	3%	33%
2040	58%	7%

Employment deficit

	CAPE TOWN	BERG WMA
2025	9%	7%
2040	62%	38%

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

