South African Weather Service

WESTERN CAPE ANNUAL RAINFALL ANALYSIS
2017 - 2025

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1. EXECUTIVE SUMMARY

This report presents an analysis of observed annual rainfall for selected stations across the Western Cape province for the period 2017 – 2025, based on rainfall observations from the South African Weather Service (SAWS).

The analysis indicates marked inter-annual variability in rainfall across the province, with a sequence of below-average years interspersed with occasional wetter years. While years such as 2020, 2021, 2023, and 2024 provided partial relief in some areas, rainfall received during 2024 and 2025 was generally below the long-term average across most stations.

The persistence of reduced rainfall in recent years, particularly following the peak rainfall year of 2023 suggests limited hydrological recovery and increased vulnerability to water-related impacts in certain areas. These findings are relevant to provincial rainfall monitoring, disaster risk management, and water resource planning.

2. BACKGROUND

The Western Cape experienced one of the most severe droughts on record during the period 2015 – 2018, which had significant impacts on water resources, agriculture, economic activity, and livelihoods. Although rainfall conditions improved in subsequent years, recovery has remained uneven and highly dependent on the performance of the winter rainfall season.

Given the province's reliance on winter rainfall systems, sustained below-normal rainfall over multiple years poses a risk of possible hydrological drought, even when isolated wet years occur. Continuous monitoring of rainfall trends is therefore essential to inform early warning, preparedness, and response measures.

This report contributes to ongoing rainfall monitoring efforts by providing a station-based assessment of annual rainfall trends over the period 2017 – 2025.

3. ANNUAL RAINFALL ANALYSIS

3.1 Data Overview

Annul rainfall totals were analysed for selected SAWS rainfall stations representing both interior and coastal regions of the Western Cape. The stations included are:

- Beaufort West
- Oudtshoorn
- George
- Swellendam
- Overberg
- Riversdale
- Mossel Bay

Table 1 summarises annual rainfall totals (mm) for the period 2017 – 2025, together with the long-term average of each station.

Table 1: Observed Rainfall Totals (mm)

	Beaufort West	**Oudtshoorn**	**George**	**Swellendam**	**Overberg**	**Riversdale**	**Mossel Bay**
2017	177.6	141.2	486.4	459.4	304.0	310.0	364.2
2018	152.2	147.8	513.6	417.8	351.8	318.8	334.8
2019	124.2	103.2	425.9	409.8	388.8	393.0	304.0
2020	309.2	130.4	608.1	603.0	465.4	490.0	434.6
2021	237.0	328.8	722.7	641.0	443.8	531.0	491.6
2022	414.4	147.0	481.4	459.4	N/A	327.4	362.4
2023	337.4	359.2	929.3	802.0	714.8	645.2	621.8
2024	273.0	314.4	610.4	629.8	558.4	504.6	427.2
2025	200.0	160.2	407.4	427.8	298.2	261.4	224.4
Long-Term Average	**253.1**	**209.0**	**597.2**	**552.8**	**440.7**	**440.0**	**417.6**

3.2 Key Observations

- ✓ Interior stations such as Beaufort West consistently recorded rainfall below their long-term average, particularly during 2017 – 2019, and again in 2025.
- ✓ Southern Cape stations (George, Swellendam, Mossel Bay, and Riversdale) experienced above average rainfall during 2021 and especially 2023, contributing to short-term recovery.
- ✓ 2024 and 2025 show a clear decline in rainfall across almost all stations, with totals generally below the long-term average, indicating a return to drier conditions.
- ✓ The Overberg region also reflects a notable decrease in rainfall during 2025, reinforcing provincial wide drying signals.

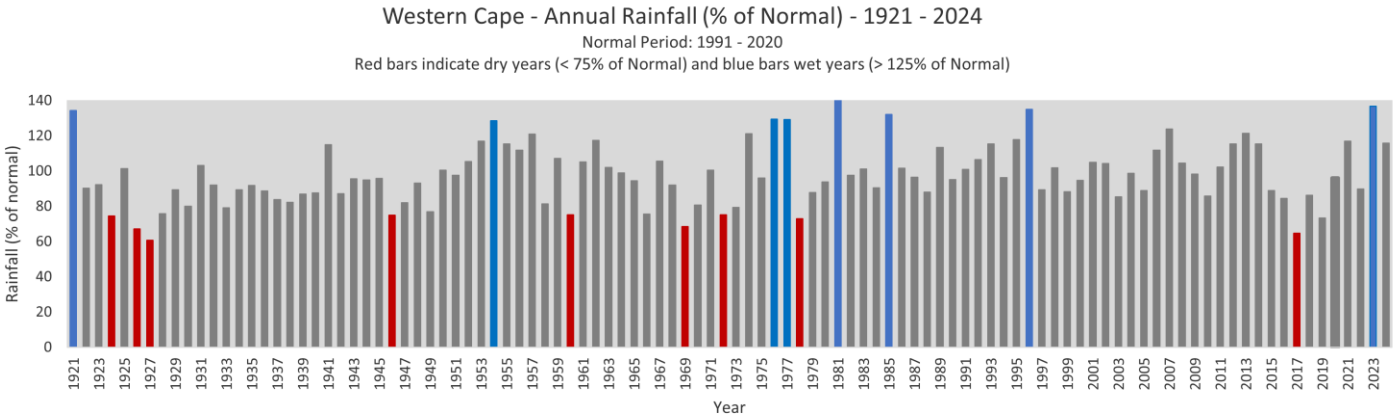

Figure 1: Western Cape Annual Rainfall Analysis from 1921 – 2024, source: South African Weather Service.

4. SUMMARY

The station-based analysis confirms that rainfall across the Western Cape province over the period 2017 – 2025 has been characterized by high inter-annual variability. While 2023 stands out as a particularly wet year at many stations, the subsequent decline in rainfall during 2024 and 2025 presents an increased risk, particularly if drier conditions persist across the province.

Based on observed rainfall data, it is therefore important to maintain continuous monitoring of rainfall conditions in the province, and for relevant stakeholders to proactively implement appropriate preparedness and mitigation measures.

**********End of Report **********