Secrets of<br/>De Hoop<br/>and EnvironsField notes on the<br/>GEOMORPHOLOGY, HYDROLOGY<br/>and ARCHAEOLOGY<br/>Between CAPE AGULHAS and CAPE INFANTAGeomorphological<br/>Research

## N. DE HOOP VLEI GORGE

Desk Note N8d. Hydrology – De Hoop Vlei – 1960 to 2020



De Hoop Vlei.

Раде



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From 1960 onwards the De Hoop Vlei water level is monitored by the Department of Water and Sanitation at the hydrometry station on the southeast shore of the vlei, close the Die Mond (Figures 1, 2 and 3).



Figure 1. Satellite image of the southern part of the De Hoop Vlei. Arrow points to the location of the hydrometry station. Boxed area enlarged in Figure 2.



Figure 2. Satellite image of a section of the east shore of De Hoop Vlei. Arrow points to the location of the hydrometry station.



Figure 3. The hydrometer on the southeast shore of the De Hoop Vlei. The south shore of Die Mond can be seen at a distance.



The vlei water level fluctuations since 1960 are presented in Figure 4. The water level is dropping since 2014 and in the beginning of 2021, it is as low as it was 30-40 years ago (1983, 1988 and 1992), leaving only little water were the vlei bed is the deepest, along the cliffs between the hotel and Die Mond.





Figure 4. De Hoop Vlei water levels 1960 to 2020. Top – 1960 to 2010; dashed line indicates the start of the bottom graph. Bottom – 2010 to 2020. The water level in the beginning of 2014 was the highest during this period of 60 years. The 'zero' level – the bottom of the hydrometer- is believed to be 3-4 m above mean sealevel; it is unclear why the top graph starts at 0 m and the bottom at 1 m.

Courtesy Department of Water Affairs and Sanitation, Hydrometry, Heatlievale, Worcester, 6849.