
ASPECT°

The Winelands of South Africa

In-depth information & detailed
topographical maps

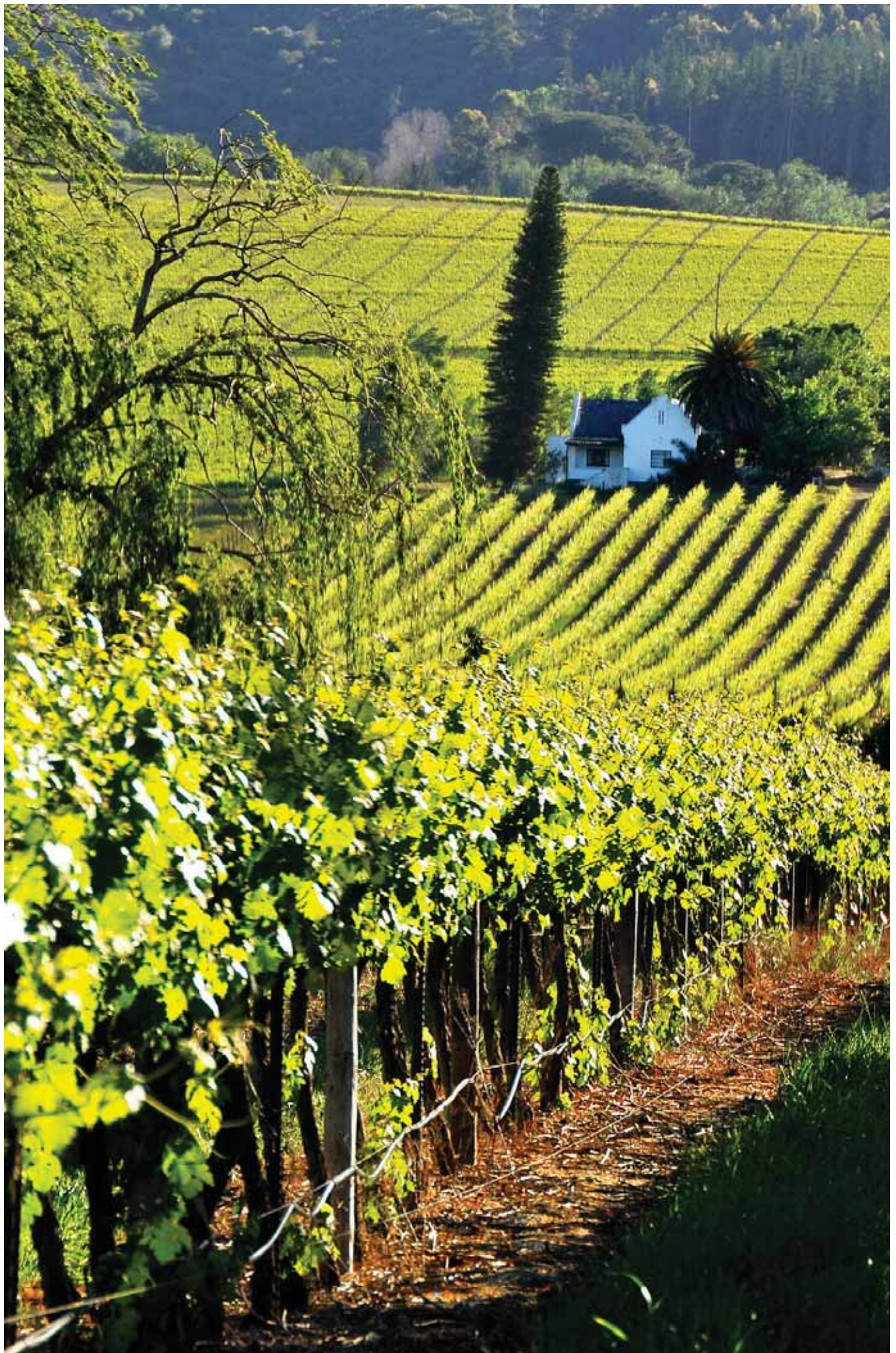
Coastal Region

Breede River Valley

CAPE TOWN

Cape South Coast

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ASPECT°

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A Vineyard in the Fynbos

These valleys with their vineyards, farms,
home of merlot, chenin blanc or pinotage;
above them the fold mountains always,
realm of proteas, ericas, our reed grasses.

No other Cape could give you this,
this floral kingdom all its own.
The soils that multiplied its flowers in thousands
have made our wines as various.

Through the length of summers here,
shaped by trade winds hard and dry;
through winters with their clouds
themselves as dark as grapes.

The slopes above, the world of fynbos,
have fed the farms, the world below;
and these two worlds, so long adjacent,
are in our wines made one.

Preserve this, keep it always in mind.
Drinking of these grapes you drink
what other Capes could dream of giving;
the vineyards in the realm of fynbos.

The wines of the Cape floral kingdom.

— *Stephen Watson*

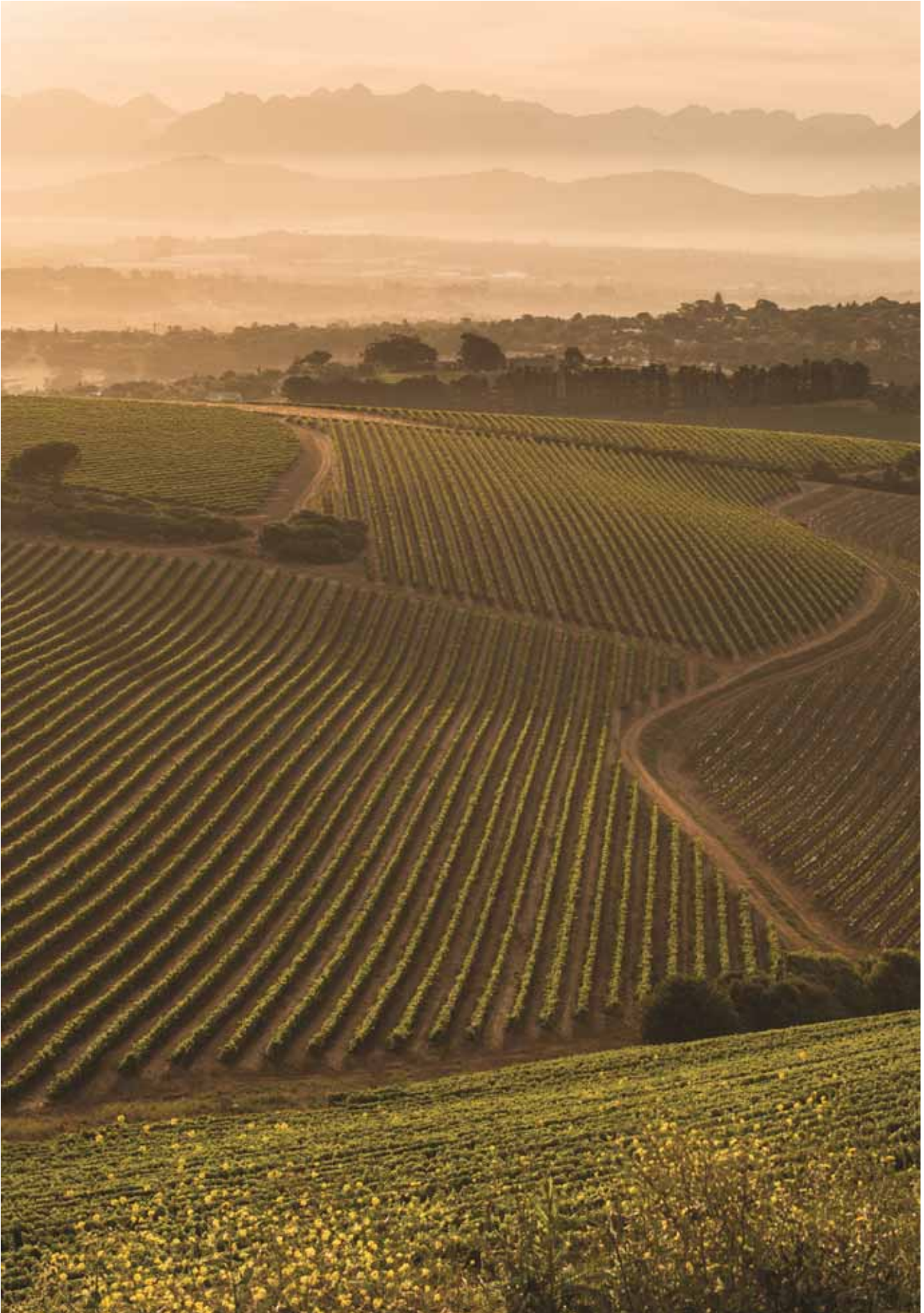
THE CAPE FLORAL KINGDOM IS THE SMALLEST YET RICHEST PLANT KINGDOM ON EARTH. RECENTLY DECLARED A WORLD HERITAGE SITE, IT IS HOME TO SOME 10 000 PLANT SPECIES AND TENS OF THOUSANDS OF ANIMAL SPECIES.

This biodiversity is the result of a complex terroir, which is also the fundamental influence on the unique diversity and quality of wines from the Cape's vineyards.



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FROM VINEYARD TO BOTTLE

In the South African winelands, the constant interplay between ancient geology, valley slopes, soaring mountains and coastal breezes results in an extraordinary biodiversity, which is reflected in our indigenous flora. With more than 10 000 plant species, 70% of which are endemic, the Western Cape is recognised as the smallest and the richest of the world's six great floral kingdoms. The same conditions which support this remarkable biodiversity can in turn support a large spectrum of wine varieties and styles.

Most of the Cape's winegrowing regions are influenced by one of the two mighty oceans which meet at this southernmost tip of Africa: the Atlantic and the Indian oceans. Combine beneficial maritime influences like regular coastal fog and cooling sea breezes with a moderate Mediterranean climate, distinctive and varied topography, and diverse soils, and you have the ideal conditions in which to create wines of unique character and complexity.

Coupled to this, a winemaking tradition and history dating back over 350 years blends the restrained elegance of the Old World with the accessible fruit-driven styles of the New, making for wines that eloquently express the unique terroir of the Cape. No wonder that this extraordinary wealth of natural assets and tradition instils South Africa's wines with a unique sense of place.

The wine industry is committed to conserving this natural heritage and South Africa is a world leader in production integrity.

The Integrated Production of Wine (IPW) is a sustainable farming initiative that was introduced in 1998. Today, over 95% of all South African growers and cellars adhere to the IPW system's guidelines, which cover environmental impact care, monitor water usage, health and safety, and protect our unique biodiversity. These independently audited guidelines are constantly improved.

The Biodiversity & Wine Initiative (BWI), a pioneering partnership between the South African wine industry and the conservation sector, was established in 2004. In the past decade, 223 South African producers have collectively set aside nearly 144 000 hectares

of conservation worthy land on their farms, ensuring the South African wine industry's conservation footprint is now well in excess of its current vineyard footprint of 99 463 hectares.

The Wine of Origin (WO) scheme, which came about in 1973 and is administered by the Wine and Spirit Board (WSB), guarantees the integrity of our wine. Sustainable Wine South Africa (SWSA) is the alliance between the WSB, the IPW scheme, WWF and Wines of South Africa (WOSA).

In 2010, South Africa launched the world's first industry-wide sustainability seal. Issued by the WSB, it guarantees a certified wine's environmental credentials according to measurable, auditable criteria (from minimising chemical usage and cleaning up waste water to introducing the natural predators of vineyard pests). The WO system traces the bottle of wine all the way back to the vineyard and the new seal links to the growing practices in that vineyard, offering a highly sophisticated degree of traceability. By 2025, 100% of certified wines should qualify to carry the new seal.

In May 2012, WIETA, a not-for-profit, voluntary association of many different stakeholders who are committed to the promotion of ethical trade, introduced a new seal to be used alongside the sustainability seal. Also believed to be a world first among wine-producing countries, it testifies to reasonable working conditions, based on rigorous and closely monitored qualification criteria.

The ultimate goal is to have one seal, issued by the WSB, that certifies the WO information (vintage, date, variety), the environmental sustainability (IPW) and the ethical treatment of workers (WIETA).

THE CONCEPT OF TERROIR

While currently topical, terroir is not a new concept. Terroir refers to the natural features of a body of land which interact to create a unique set of conditions that in turn confer specific characteristics on the wines produced there. Key factors include topography, climate, geology and soil. From 200 BC to 200 AD, Georgic authors underlined the role played by the environment in viticulture both at a macro and meso scale, and the importance of choosing the site according to the varieties to be planted. This concept has formed the basis of many geographical indication systems, including the Wine of Origin system in South Africa. The pronounced diversity in South Africa's vineyard and wine landscapes is considered an asset, and zonation and demarcation of areas of origin are rated highly important by the industry.

All around the world, the identification of viticultural terroir is receiving a lot of attention, backed by an increasing demand by the consumer for knowledge and understanding of the origin of each wine produced. Although falling within the warmer winegrowing zones, the Cape is influenced by two oceans, and has a great diversity of topography and mesoclimatic conditions impacting on viticulture. In South Africa, as in much of the New World, wine producers are focused on identifying and selecting sites best suited to particular grape varieties. In addition, new clones and rootstocks which are particularly well adapted to the local soil and climatic conditions are being selected.

ONGOING RESEARCH

South Africa has become a New World leader in terroir research, the basis of a multi-disciplinary programme currently being carried out at the ARC Infruitec-Nietvoorbij Institute of Viticulture and Oenology in Stellenbosch and the University of Stellenbosch. Begun some 21 years ago to identify what constitutes terroir and its effects on grape quality and style, it has already had a significant impact on better matching between varieties and locations in the Cape winelands, as well as on

current viticultural practices such as canopy management and trellising, and unlocking the potential of new winegrowing areas. As the research continues, so does the ongoing debate about which interrelated environmental factors are the most important in influencing the outcome of the wines. This is not simply an academic exercise but a committed attempt to grow better wines, part of a focused shift from grape farming to wine growing.

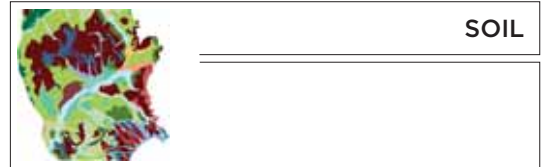
NATURAL TERROIR UNITS

How can they help the wine grower?

A natural terroir unit (NTU) is a unit of the earth's surface characterised by relatively homogenous patterns of topography, climate, geology and soil. It has an agronomic potential which is reflected in the characteristics of its products, resulting finally in the concept of terroir. A terroir is therefore defined as a complex of natural environmental factors which cannot be easily modified by the producer. Aided by various management decisions, this complex is expressed in the final product, resulting in distinctive wines with an identifiable origin. The terroir cannot be viewed in isolation from management and cultivation practices, although they do not form part of the intrinsic definition.

The identification of NTUs forms the first step of any terroir study. To better understand how a map of NTUs can be of use to the wine producer, it is necessary to look at the interaction of each of its components with wine quality and character.

A map of natural terroir units has been compiled for an area of approximately 25 000 ha to the west and southwest of Stellenbosch. The relatively complex topography of this area and its proximity to the Atlantic Ocean, with the resulting interplay of sea and land winds, provides many different environments for viticulture which are well represented by the identified NTUs, yielding a wealth of environmental information, an important basis for studying the environmental effects on the vine phenology, and on production and wine character.



Five terroir components used to create a map of Natural Terroir Units in the Bottelaryberg-Simonsberg-Helderberg winegrowing area. (Carey, 2001)



GEOLOGY

Although viticulture in the Western Cape is relatively young, the geology is not, resulting in some of the most ancient viticultural soils in the world. Massive pressures and upheavals over millions of years resulted in majestic mountain ranges on the southern tip with steep slopes and deep valleys, soft folds and soaring peaks, and created a remarkable variety of mesoclimates and soil types in the process.

In order to understand and appreciate the magnitude of this geological inheritance, it's essential to go way back in time. What can presently be discerned in the landscape is late Precambrian Malmesbury Group shale and schists, deposited some 1 000–550 million years ago in a marine basin, presently occurring at an altitude of 20–200 m. This deposit was folded and uplifted due to tectonic movement of the Pan African event, which ended 550 million years ago, and eroded into rolling hills.

Subsequently, intrusions of Cape Granite Suite plutons (domes) occurred around 600–500 million years ago, before the stage of separation of Gondwanaland into present day Africa, South America, India, Australia and Antarctica. A period of erosion and planation of some 50 million years

followed. The surface then subsided and was covered from the north by deep deposits of the Cape Supergroup (400–300 million years ago) and later by the Karoo Supergroup.

About 250 million years ago, intensive folding and uplifting occurred, creating the distinctive folded sandstone mountain ranges and valleys of the Cape. Erosion removed large areas of the Cape Supergroup deposits, leaving sandstone remnants like Table Mountain and Simonsberg (1 000–1 300 m altitude), often resting on granitic foothills and associated with exposed granite plutons or domes, presently visible as distinctive solitary mountains (Paarl Mountain, Perdeberg: 500–700 m altitude) or ranges of hills (Bottelary, Malmesbury and Darling hills: 200–400 m altitude), usually surrounded by Malmesbury shale landscapes.

WHAT IS A PLUTON?

Plutons are dome-like intrusions of igneous magma into the earth's crust which occurred at great depths and consequently cooled slowly, resulting in a coarse crystalline (granitoid) texture. These plutons have subsequently been exposed by erosion, resulting in dome-like mountains or hills such as the Paarl and Perdeberg mountains and Darling hills, or the exposed domes have been 'flat-topped' by erosion and then covered by sandstone deposits, and have then again been eroded, resulting in sandstone on a granitic base mountains, such as Table and Simonsberg mountains.

“If terroir is important, then the age of that soil and the way the soil is constructed is important. Age and the weathered character of that soil are essential to the eventual wine, whose journey started at the hair root tips of the vine. Our geology is like a craggy old sun-etched wild west gunslinger in Hollywood — it would be impossible to cram more evidence of character and age into one face, that’s us — and it makes our wines different. We call it the energy of memory. And when you can capture that spirit of place in a wine you strike something that resonates with authentic brilliance. It’s something extra in the wine that you sense, rather than taste.”

— Bruce Jack, South African winemaker



TOPOGRAPHY

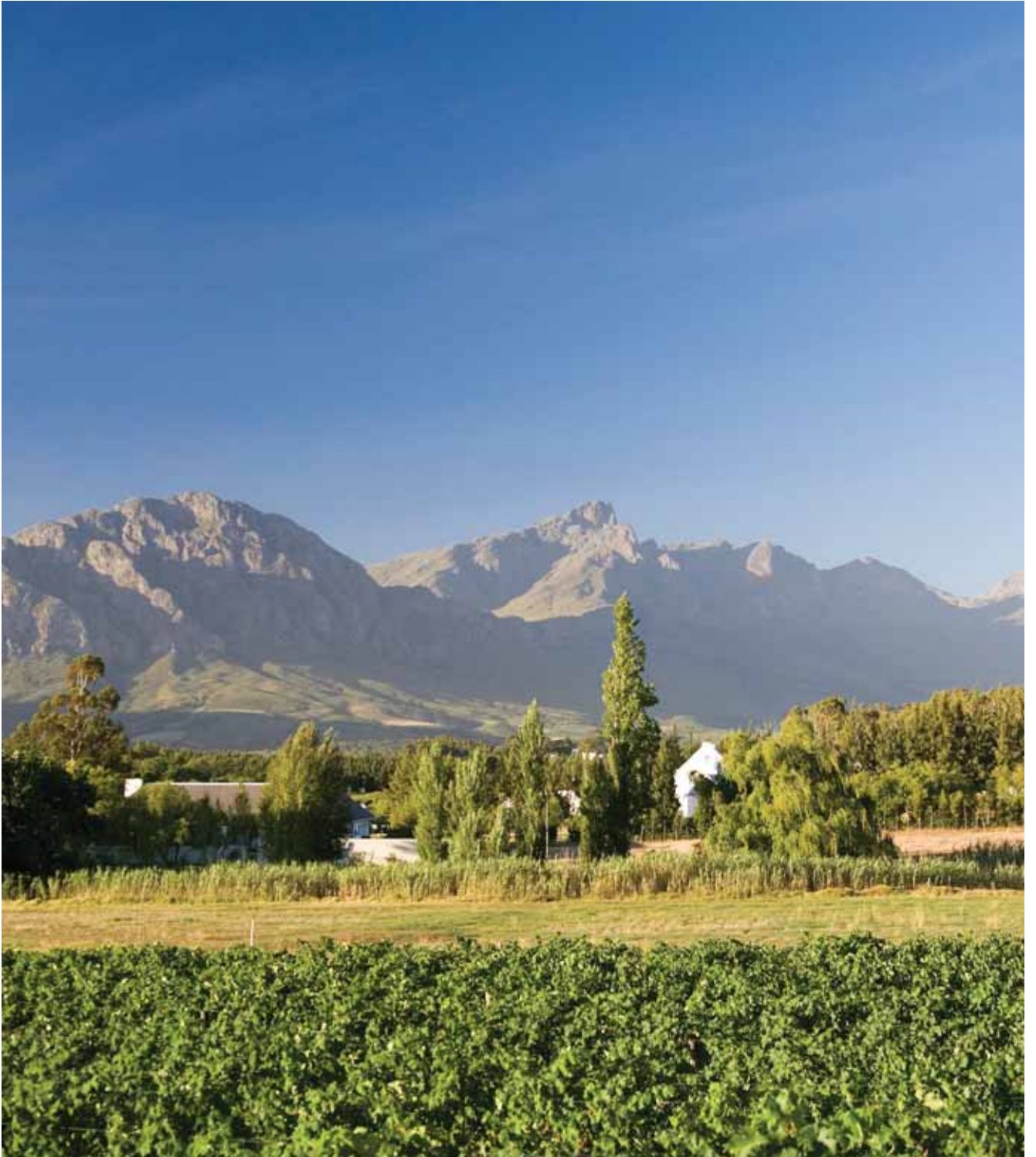
One of the outstanding natural features of the South African vineyard and wine landscapes is the distinctive and diverse topography, characterised by magnificent sandstone mountains, often resting on granitic foothill bases which merge into undulating shale substrata hills. Closely linked to geology, topography forms an important part of the terroir concept, and has a strong interaction with the environmental components of climate and soil. Its effect, both below and above the ground, is considered to be one of the major factors when it comes to the quality of the grapes, with altitude, aspect and inclination of the slope the three most important attributes affecting viticulture. Topographic effects can be indirect, due to soil types, exposure to wind and ventilation, or direct, due to the immediate effects of the incidence of the sun's rays on the earth's surface.

The vineyards of the Cape are planted in a wide variety of locations – hugging valley floors, clambering over hills, climbing steep mountain slopes, or tucked beneath high peaks. This varied terrain offers not only a wide range of locations but also many different mesoclimates and soils in which to grow the various varieties. With increased knowledge of the vines' needs, many farmers have extended their plantings upwards to benefit from better drainage and cooler temperatures. Vineyards may be located from a mere 50 m above sea level to over 600 m in the mountains. A vast difference

in height above sea level between the lowest altitude vineyards and the highest can often be found on one single farm. This is often used to differentiate between styles for the same variety or to plant several varieties with different climate requirements on the same farm.

When it comes to aspect, in the southern hemisphere preference is given to the cooler southern and eastern slopes, especially for the more delicate varieties like Sauvignon Blanc and Pinot Noir. Changes in altitude result in different slopes and aspects, with resulting changes in solar radiation interception, temperature and wind exposure. Northern and western slopes are warmer than southern and eastern due to their higher inception of sunlight. Eastern slopes will, however, warm up faster than western slopes and cool earlier.

During the summer months, the sun rises late and sets early behind the peaks in the prime wine-producing vineyards in the mountainous terrain of the Cape, casting deep shadows over the vineyards on the mountain slopes in the early morning and late afternoon, and thus restricting the amount of sunlight hours. Some vineyards only see the sun rising as late as 10:00 in the morning. On the longest day of the year in mid-summer the prime Cape vineyards seldom receive a maximum of more than 10 hours of sunlight.



SOIL

South Africa is widely recognised as the cradle of mankind. Still older are the parent materials of the Cape wine regions. The soils that developed from this are very diverse, mainly due to pronounced differences in topography and geology, greatly impacting on mesoclimate and vine performance.

Various weather cycles and several periods of inundation by the sea, together with the pronounced and varied geography of the Western Cape, gave rise to great soil diversity over short distances. In the coastal zone, the general pattern is sandstone mountains, often resting on granite intrusions, surrounded by shale at lower altitudes, whereas further inland shale parent material and river deposits usually predominate.

The highly regarded reddish and yellowish brown soils are usually associated with granitic hills, for example the Bottelary, Malmesbury and Darling hills, and the granitic foot slopes of the sandstone mountains, including Table Mountain, Stellenbosch Mountain, and the Hottentots Holland, Helderberg and Simonsberg mountains. These soils, at altitudes of 150–400 m, often on steep slopes, are relics of a past, high rainfall, tropical era. They are highly weathered and acid, very stable and well drained, with a good water-holding capacity. Other soils that formed on granite occur on gently undulating hills between the mountains and the sea at 20–150 m altitude. This zone was invaded several times by the sea due to land recession and uplifting. The soils are generally duplex in character, consisting of coarse bleached sand and often also yellow-brown gravel or ferricrete, on wet (gleyed) clay. Extremes in wetness and drought in these soils curtail vigour. The generally consistent performance of vines on these soils over seasons, especially when coupled with good exposure to prevailing cool sea breezes, ensures good quality wines.

The gently undulating Malmesbury shale landscapes usually surround granite plutons (domes) and are adjacent to the sandstone on granite mountain ranges. Here, soil types typically vary from stony, weathered rock residual soils on hill crests, to strongly structured soils on mid and foot slopes but with the weathered shale substrata usually still within reach to be exploited by vine roots.

GROUPING OF SOIL FORMS



1 Calcic



2 Duplex



3 Podzolic



4 Plinthic



5 Oxidic



6 Gleyic



7 Cumulic



8 Lithic

SOIL GROUP	OCCURRENCE	SOIL CONCEPT	IDENTIFICATION	LOCAL SOIL FORMS*
1 Calcic	In Robertson and Klein Karoo	Carbonate or gypsum enrichment; arid	Soft or hardpan carbonated or gypsic horizon	Molopo, Askham, Kimberley, Plooyburg, Etosha, Gamoep, Addo, Prieska, Brandvlei, Coega
2 Duplex	On older landscapes such as the Swartland district	Marked clay enrichment (duplex)	Pedocutanic or prismaeutanic B	Estcourt, Klapmuts, Sterkspruit, Sepane, Valsrivier, Swartland
3 Podzolic	Derived from Table Mountain sandstone, the annual rainfall must be 600 mm or more, and the vegetation must be fynbos, for eg the Elgin, Walker Bay and Agulhas districts	Metal humate enrichment	Podzol B	Tsitsikamma, Lamotte, Concordia, Houwhoek, Jonkersberg, Witfontein, Pinegrove, Groenkop
4 Plinthic	Iron accumulation in the lower lying sandy soils of the Stellenbosch and Darling districts	Iron enrichment (absolute); mottling or cementation	Soft or hard plinthic B	Longlands, Westleigh, Avalon, Lichtenburg, Bainsvlei, Wasbank, Glencoe, Dresden
5 Oxidic	In very young transported soils (young landscapes such as Vredendal)	Iron enrichment (residual); uniform colour	Red apedal, yellow-brown apedal or red structured B	Pinedene, Griffin, Clovelly, Bloemdal, Hutton, Shortlands, Constantia
6 Gleyic	In badly-drained soils, lower-lying areas	Reduction (aquic subsoil or wetland)	G	Kroonstad, Katspruit
7 Cumulic	On mountain slopes and alluvial terraces (think mountainous districts such as Breede River Valley)	Young soil in inconsolidated sediment (colluvial, alluvial, aeolian)	Neocutanic or neocarbonate B, regic sand, deep E or stratified alluvium	Tukulu, Oakleaf, Montagu, Augrabies, Namib, Vilafontes, Kinkelbos, Fernwood, Dundee,
8 Lithic	In very young soils formed from partially weathered rock (found everywhere, for example the Riebeeckberg ward)	Young soil on weathered rock	Lithocutanic B or hard rock	Glenrosa, Mispah, Cartref

* According to *Soil Classification: A Taxonomic System for South Africa*.

Source: *Soils of South Africa* by Martin Fey. Cambridge University Press, Cape Town (<http://cambridge.org>). 2010. Additional information – Heinrich Schloms, GIS Soil Scientist, VinPro.

CLIMATE

In South Africa, viticulture originated and still mainly takes place at a latitude of 27–34° south in an area with a Mediterranean climate. The Western Cape is cooler than its position might suggest, with conditions that are ideal for growing a wide range of noble wine varieties. The traditional winegrowing areas along the coastal zone are seldom more than 50 km from the ocean and experience beneficial coastal conditions, especially cool sea breezes. The temperate climate features warm summers and cool winters, with frost rarely a problem.

Rain falls mainly between May and August, and diminishes in a northerly and northwesterly direction, caused by the cold Benguela Current along the west coast and the prominent mountain ranges which follow the coastline, making irrigation essential in these areas. Temperature is probably one of the most important factors affecting the grapevine as it has an effect on almost every aspect of its functioning. Temperatures follow an inverse pattern to rainfall, increasing in a northerly direction and with distance from the sea.

The impressive Cape mountain ranges form a dramatic backdrop to one of the most beautiful

wine-producing areas of the world. The vineyards lie on the valley sides and mountain foothills, benefiting from the many different mesoclimates offered by the mountainous terrain and diverse terroirs. There's constant interaction between the rugged peaks and multi-directional valley slopes, and the proximity of two mighty oceans – in particular the Atlantic, chilled by the icy Benguela Current which flows northwards up the west coast of Africa from Antarctica – moderates the summer warmth. Cooling moisture-laden breezes blow in from the sea during the afternoon, and seasonal fog is prevalent. Adequate sunshine plays an important role too.

Climate is described in viticulture on three levels, namely:

MACROCLIMATE

The climate of a region.

MESOCLIMATE (also named topoclimate)

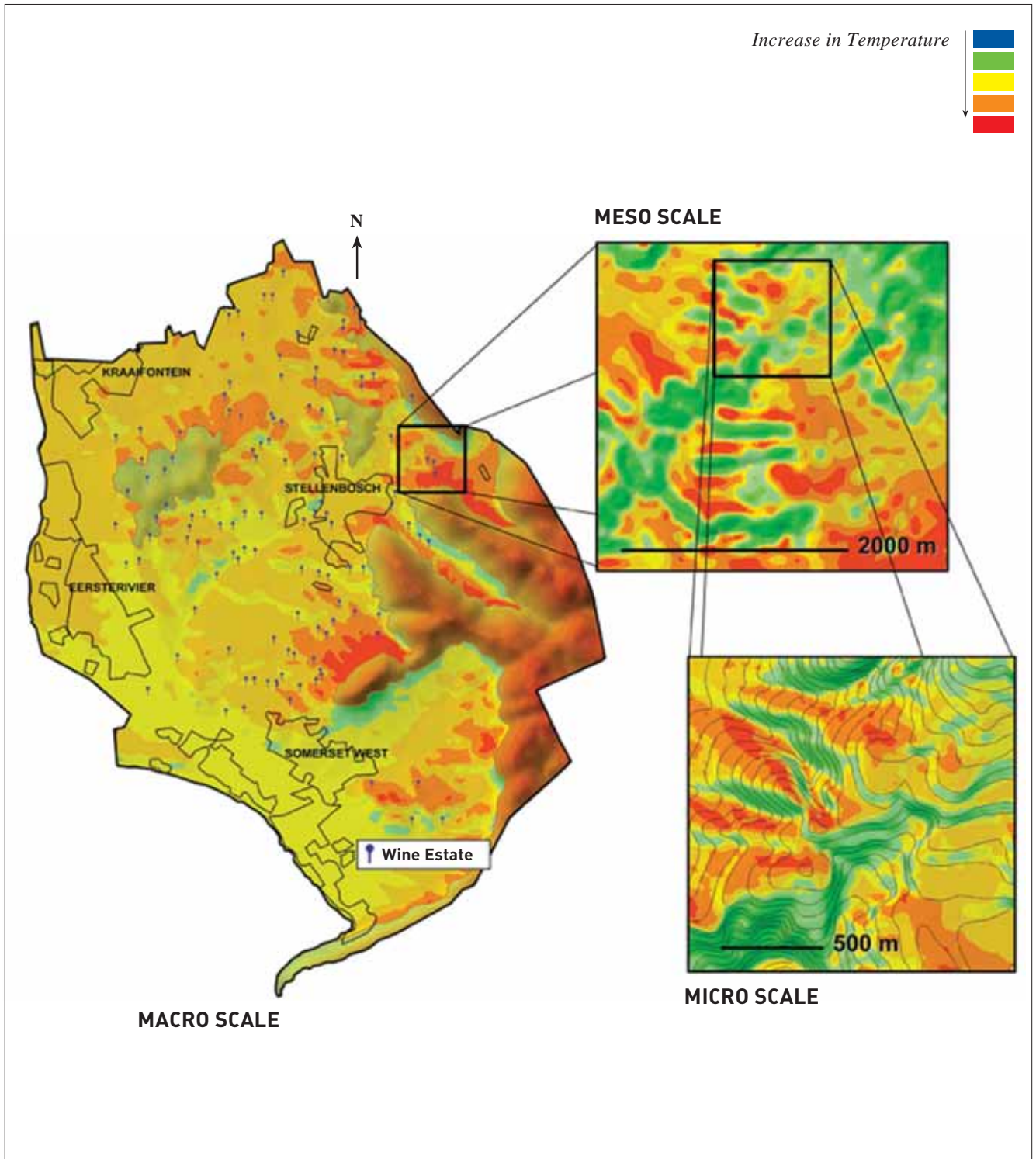
Mesoclimate differs from the macroclimate of the region due to differences in altitude, slope inclination, aspect or distance from large bodies of water; this term usually describes the climate of a particular vineyard.

MICROCLIMATE

Microclimate is the climate surrounding the bunches within the vine canopy as modified by vine and canopy management characteristics, and can differ within a few centimetres.

STELLENBOSCH WINE DISTRICT

Large variation in altitude, slope steepness and slope orientation can contribute significantly to the extent of biodiversity found within a single wine district. Here advanced computer modelling was used to map the variation in solar radiation on a landscape (macro) and vineyard (micro) scale. The use of this technology for vineyard planning purposes is fast becoming a standard practice in the Western Cape.

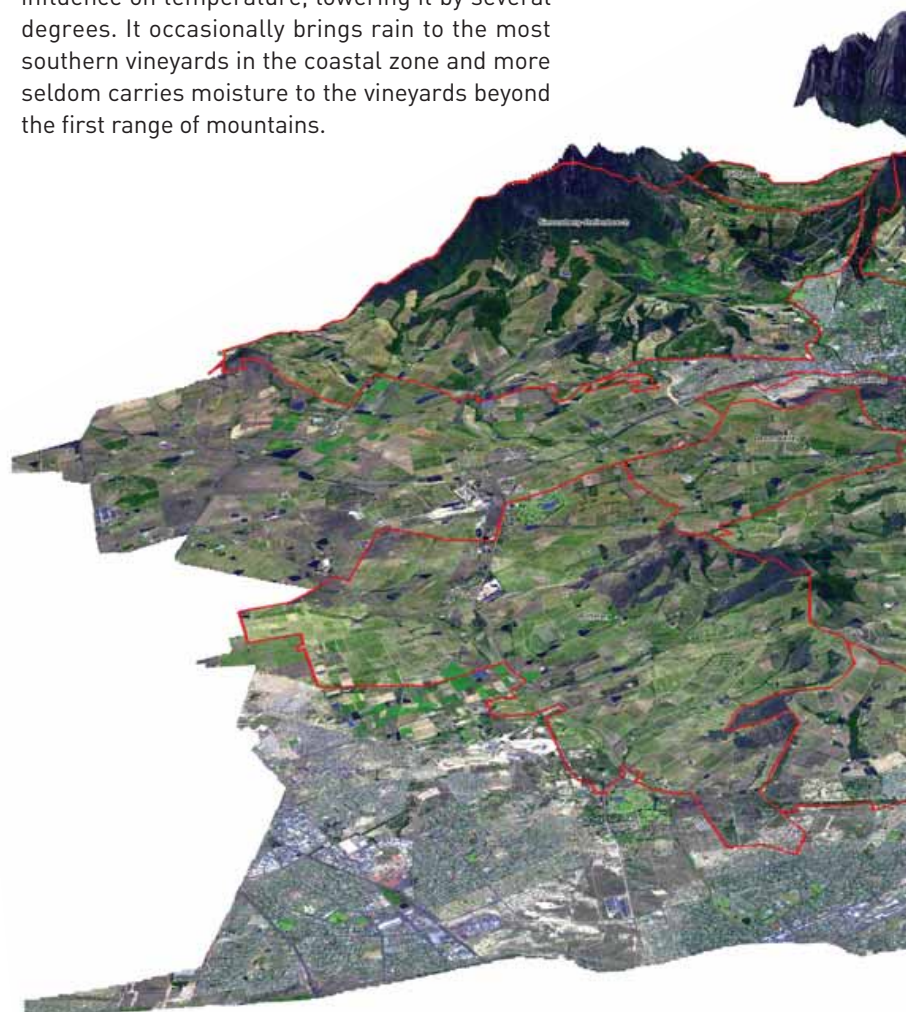


THE EFFECT OF SEA BREEZES

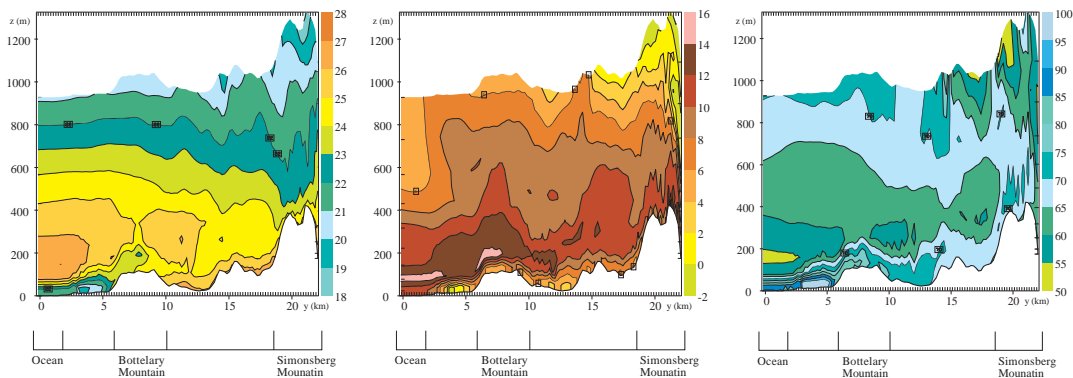
The ARC Infruitec-Nietvoorbij automatic weather station network has been installed in the Cape for a number of years, allowing for climatic investigation with the priority being viticultural terroir identification. In the Western Cape there is a significant contrast between the cool ocean and the warm inland temperatures, as shown on the NOAA Satellites and Information image (below). This results in a frequent occurrence of the sea breeze, especially during the maturation period in February (Bonnardot, 1997; 2000) when land temperatures are high (mean February temperature is 22°C at Cape Town International Airport compared to 23°C past the first mountain range) and the ocean remains cool due to the cold Benguela Current (below 15°C in some places).

THE CAPE DOCTOR

This legendary – and sometimes ferocious – southeasterly wind blows across the southwestern Cape during the spring and summer months. Living up to its name, it inhibits the development of disease in the vineyards. The southeaster has a moderating influence on temperature, lowering it by several degrees. It occasionally brings rain to the most southern vineyards in the coastal zone and more seldom carries moisture to the vineyards beyond the first range of mountains.



Graphical measurement of a sea breeze showing sea surface temperature, wind speed and humidity (from NOAA)



Temperature (°C)

At 17:00 SAST on 3rd February 2000

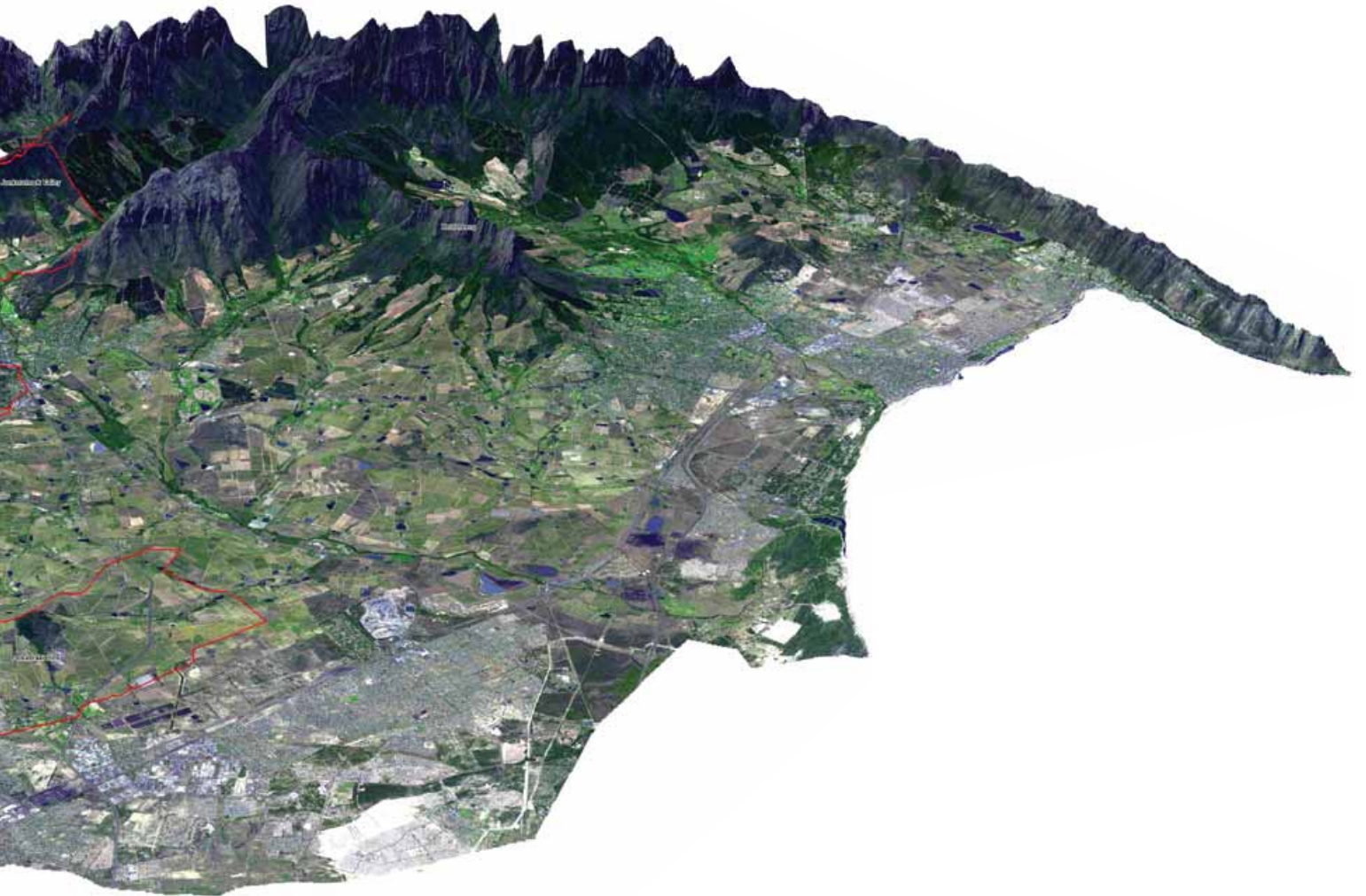
Wind Speed (ms-1)

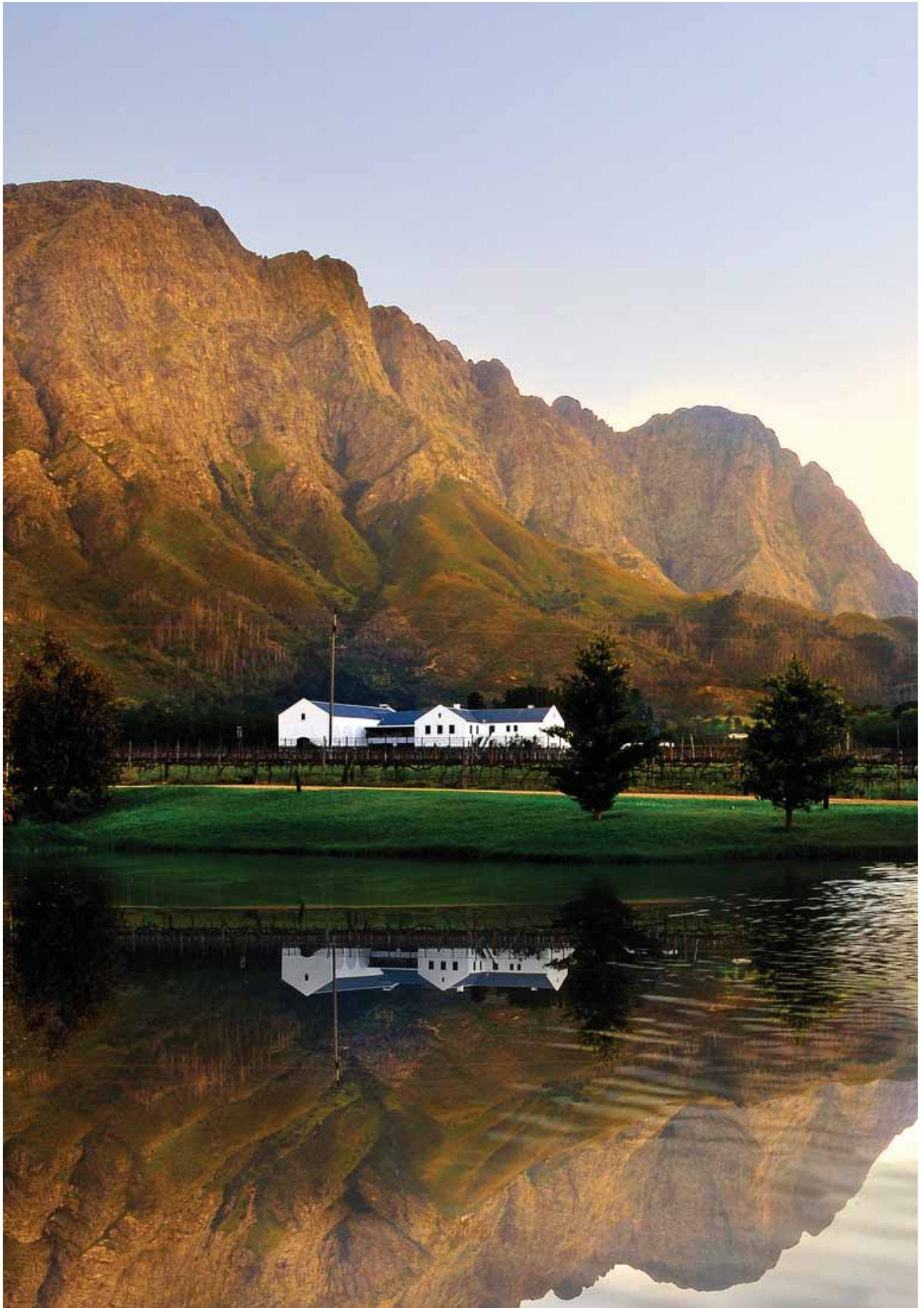
At 17:00 SAST on 3rd February 2000

Relative Humidity (%)

At 17:00 SAST on 3rd February 2000

TOPOGRAPHICAL PROJECTION OF THE STELLENBOSCH WINE DISTRICT





WINEGROWING AREAS

South Africa is the southernmost country in Africa and the Cape winelands are located at the very tip of the continent. The winelands stretch from the rugged mountains and multi-directional slopes of the coastal region to the open plains of the Klein Karoo, where viticulture takes place mainly in the alluvial soils of the riverine valleys. Rainfall on the coastal side, where fynbos and renosterveld vegetation flourish, measures up to 1 000 mm per year. Travel over the mountains and the rainfall decreases dramatically, leaving inland wine producers dependent on irrigation. The vegetation is dominated by hardy succulent plants which survive in these semi-arid conditions.

Currently around 99 463 ha of vines producing wine grapes are under cultivation over an area some 800 km in length. Under the auspices of the Wine of Origin scheme, which came about in 1973 and ensures that South Africa has some of the most intricate and well-established legislation in the New World when it comes to defining wine-producing appellations, production zones in the Cape

winelands are divided into officially demarcated regions, districts and wards. There are five main regions – Breede River Valley, Cape South Coast, Coastal, Klein Karoo and Olifants River – encompassing 27 diverse districts and some 77 smaller wards, including exciting newer ones like Elim near the southernmost tip of Africa, Cape Agulhas and Malgas.

CRITERIA FOR THE DEMARCATION OF AREAS OF ORIGIN

When a **ward** is defined, soil, climate and ecological factors play a very important role as they have a clear influence on the character of the wine. The proposed area name also has to be the real geographical place name and nature has to dictate that the specific area can actually produce wines with a distinctive character.

Districts have to meet the same criteria as wards but with a broader definition of the relevant area using macro geographical characteristics such as mountains and rivers. Naturally, a greater variety of soil types are allowed than in the wards.

Regions are mainly defined according to the encompassing area name which in the case of a river stretches from the source to the mouth thereof. When it comes to an estate, which can consist of one or more farms, it has to be accepted that the natural factors can differ but it is distinctive because in most cases there is only one producer and the farms are run as a unit.

On 2 April 1993, the Wine of Origin Scheme was amended to make provision for the defining of a **geographical unit**. Currently, five geographical units have been demarcated, namely Western Cape, Northern Cape, KwaZulu-Natal, Limpopo and Eastern Cape.

Source: SAWIS

STAND-ALONE DISTRICTS & WARDS

The South African wine industry of today embodies a spirit of discovery as its rapid evolution in recent decades has seen the opening up and demarcating of exciting new winegrowing sites. Interestingly, some of these unique sites, where ideal conditions for winegrowing have been identified, are in areas where wine grapes have never been planted before. Several traditionally fruit-growing areas, for example, have proved perfect for the planting of vineyards. This opening up of new wine production areas is in line with trends across the winegrowing regions of the world.

In South Africa, production areas are demarcated in terms of the Wine of Origin scheme. The concept of terroir coupled with scientific research has indicated three specific stand-alone districts, namely Ceres Plateau, Douglas and Sutherland-Karoo; and 22 stand-alone wards, such as Cederberg, Lamberts Bay, Prince Albert Valley and Swartberg. While these stand-alone appellations are all included within a geographical unit, none of the three districts included in this grouping belong to a region; and all of the stand-alone wards are either part of a region but have no district (for example Bamboes Bay, which is part of the Olifants River region but does not belong within a district) or do not fall within either a region or district (for example, St Francis Bay).

WINEGROWING AREAS MAP

WESTERN CAPE

COASTAL REGION Districts:

- SWARTLAND
- STELLENBOSCH
- CAPE TOWN
- TULBAGH
- PAARL
- FRANSCHHOEK VALLEY
- DARLING
- WELLINGTON

KLEIN KAROO Districts:

- CALITZDORP
- LANGEBERG-GARCIA

CAPE SOUTH COAST Districts:

- OVERBERG
- WALKER BAY
- SWELLENDAM
- CAPE AGULHAS
- PLETTENBERG BAY
- ELGIN

OLIFANTS RIVER Districts:

- LUTZVILLE VALLEY
- CITRUSDAL VALLEY
- CITRUSDAL MOUNTAIN

BREDE RIVER VALLEY Districts:

- BREDEKLOOF
- WORCESTER
- ROBERTSON

NORTHERN CAPE

CENTRAL ORANGE RIVER (Ward)

WARDS NOT PART OF A REGION

- CERES PLATEAU
- CEDERBERG
- PRINCE ALBERT VALLEY
- SWARTBERG
- LAMBERTS BAY

CAPE TOWN

A great wine capital of the world

Region: Coastal

District: Cape Town

Wards: Constantia, Durbanville, Hout Bay, Philadelphia

The historic **Constantia** valley was the cradle of winemaking in South Africa and has a wine history dating back to 1685. The valley was the site of Simon van der Stel's 17th-century wine farm and the source of the legendary Constantia dessert wines, which were famous throughout Europe during the 18th and 19th centuries. There are only a handful of cellars in the ward, and these continue the tradition of crafting excellent wines characterised by complexity and elegance.

The vineyards in this premier cool-climate viticultural ward climb up the east-facing slopes of Constantiaberg, a southern extension of Table Mountain below which the city of Cape Town and its suburbs spread out.

The vines benefit from a mild maritime climate with cool sea breezes blowing in from False Bay, which is some five to 10 km away. The ward receives an average of 1 000 mm of rain annually, making irrigation unnecessary, and has a mean February temperature of 20.6°C. The deep, predominantly yellow-brown and reddish-brown, well-drained soils are mainly derived from granite, which forms the base of the sandstone that constitutes the upper formations of the mountains.

The wines today, highly esteemed by wine connoisseurs, are made from classic European noble varieties (Sauvignon Blanc, Semillon, Chardonnay, Merlot, Cabernet Sauvignon, Cabernet Franc and Shiraz). The tradition of producing luscious sweet Constantia wines was revived in 1986 to worldwide recognition.

The acclaimed Cape Point vineyards, some of them a mere 1.2 km from the sea, are situated on the western edges of the Cape Peninsula. This cool-climate area is recognised mainly for its Sauvignon Blanc and Semillon.

The vineyards of **Durbanville**, like those of Constantia, lie very close to Cape Town and border on the northern suburbs. The Durbanville ward is characterised by a south-north running

range of hills known as Tygerberg, from which the district takes its name, and Kanonkop, open towards the west (10 km) and south (28 km) to the sea. The vineyards are situated mainly on the eastern slopes at altitudes of 100–300 m.

Soils are derived from greywacke and phyllitic shales, and are mainly reddish-brown, deep and well drained. These soils are not acid, unlike typical Western Cape highly weathered soils, and have a good water-holding capacity. This makes dryland production possible, even with an average annual rainfall of only 481 mm on the eastern slopes and even less on the western slopes.

Although the mean February temperature is given as 22.8°C, the duration of high temperatures during the day is short due to cooling by prevailing summer sea breezes from False Bay, which usually take effect at midday. In the early evening, mists roll in from the sea. Research has shown that a temperature variation of up to 5°C can be found in adjoining vineyards where the one directly benefits from these maritime conditions and the other, situated behind the hill, does not.

Some dozen estates and wineries, situated mainly on the rolling hill slopes with their various aspects and altitudes, continue to make a wide variety of wine styles. Wines from this ward attracting attention are made predominantly from Sauvignon Blanc, which is the dominant variety in the valley, Chardonnay, Merlot, Pinotage and Cabernet Sauvignon.

CONSTANTIA

Weather Station	Groot Constantia
Altitude	107 m
Dominant Influence	Proximity of False Bay, easterly aspect, soil
Heat Summation	1 742°C days
MFT	20.6°C
Continentality	8.4°C
Total Rain	1 056 mm
Summer Rain	335 mm
Aridity Index	189 mm
Geology	Sandstone and granite
Dominant Soils	Red- & yellow-brown Tukulu and Oakleaf

DURBANVILLE

Weather Station	Hillcrest
Altitude	319 m
Dominant Influence	Proximity to cold Atlantic Ocean, altitude, soil
Heat Summation	1 728°C days (III)
MFT	22.8°C
Continentality	6.4°C
Total Rain	353 mm
Summer Rain	121 mm
Seasonal Evaporation	910 mm
Aridity Index	243
Geology	Greywacke (Shale)
Dominant Soils	Red- & yellow-brown Tukulu and Oakleaf



CAPE TOWN

18°20'0"E

18°30'0"E

18°40'0"E

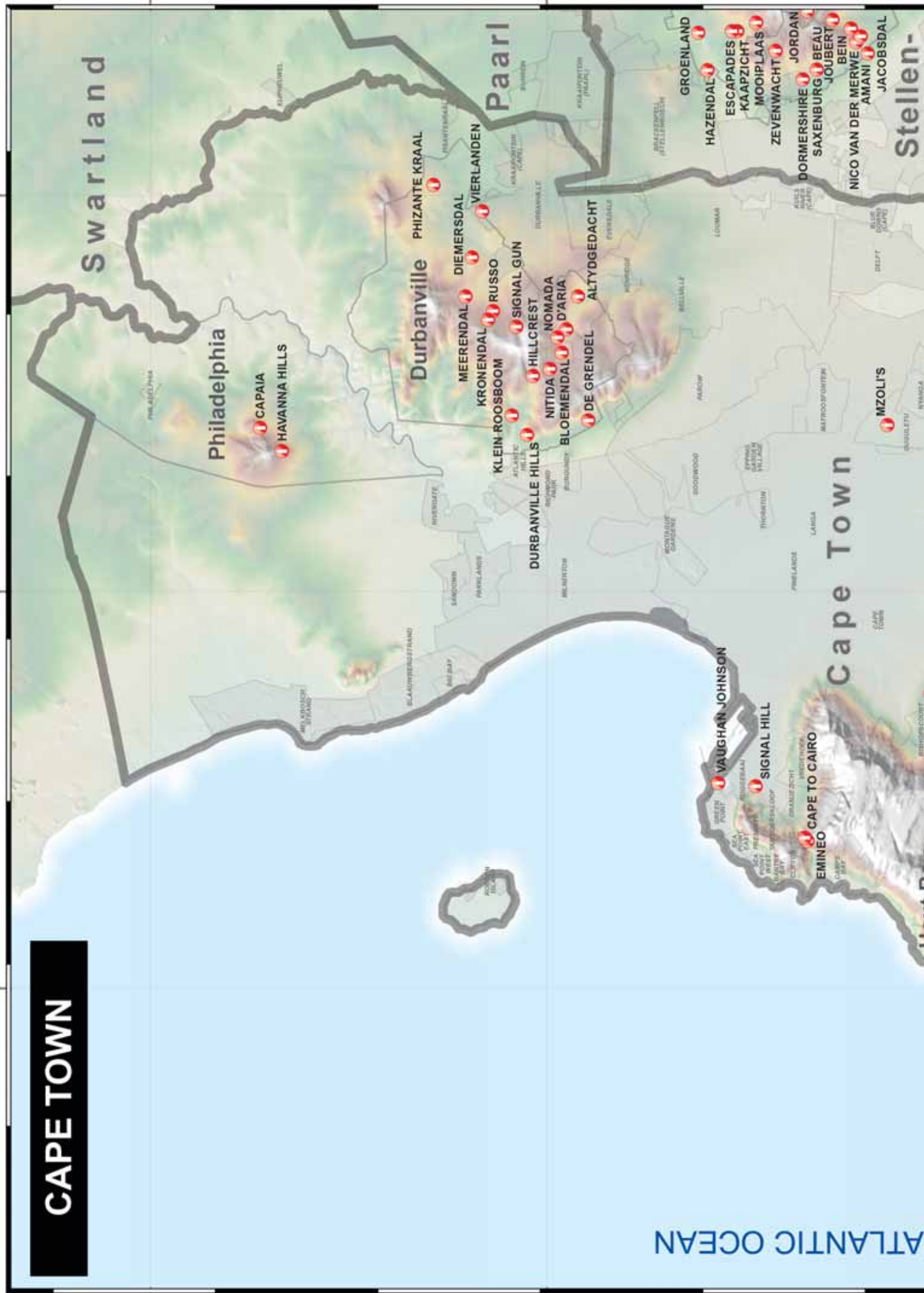
33°40'0"S

33°50'0"S

33°40'0"S

33°50'0"S

ATLANTIC OCEAN



Swartland

Philadelphia

CAPAIA
HAVANNA HILLS

Durbanville

MEERENDAL
KRONENDAL
KLEIN ROOSBOOM
DURBANVILLE HILLS
NITIDA
BLOEMENDAL
DE GRENDAL

PHIZANTE KRAAL
DIEMERSDAL
RUSSO
SIGNAL GUN
HILLCREST
NOMADA
D'ARIA
ALTYDGEDACHT

Paarl

GROENLAND
HAZENDAL

ESCAPADES
KAAPZICHT
MOOIPLAAS
ZEVENWACHT

JORDAN
DORMERSHIRE
SAXENBURG
BEAU JOUBERT
BEIN

NICO VAN DER MERWE
AMANI
JACOBSDAL

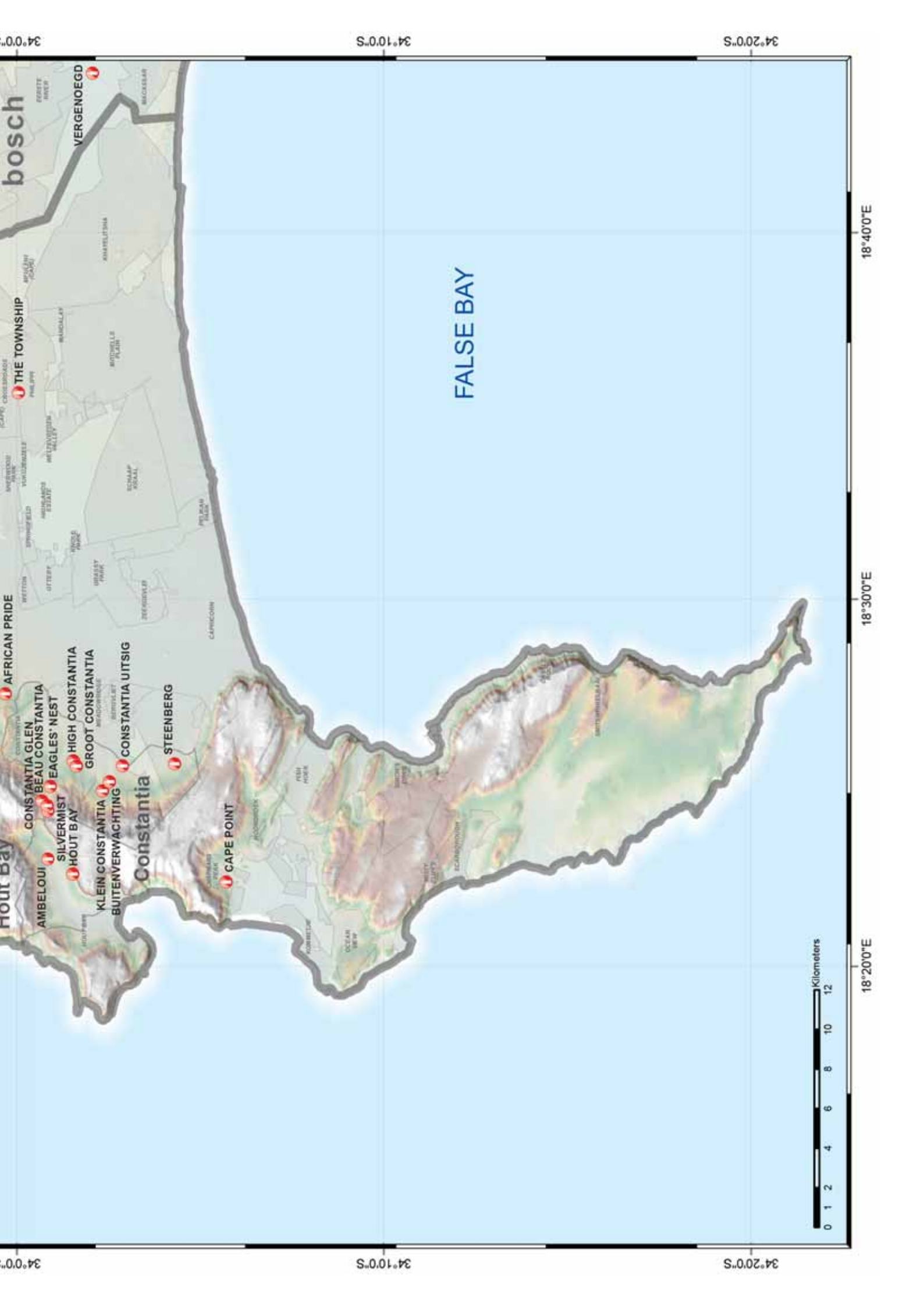
Stellen-

Cape Town

VAUGHAN JOHNSON

SIGNAL HILL

EMINEO
CAPE TO CAIRO







STELLENBOSCH

Educational centre of the winelands

Region: Coastal

District: Stellenbosch

Wards: Banghoek, Bottelary, Devon Valley, Jonkershoek Valley, Papegaaiberg, Polkadraai Hills, Simonsberg-Stellenbosch

The historical town of **Stellenbosch**, the 'town of oaks', boasts a winemaking tradition that stretches back to the mid-17th century. Stellenbosch is the business hub of the South African wine industry. The town is also the educational and research centre of the winelands. Stellenbosch University is the only university in South Africa that offers a degree in viticulture and oenology, and many of the country's most successful winemakers are alumni. The Elsenburg School of Agriculture is also near Stellenbosch, as is the ARC Infruitec-Nietvoorbij Institute for Viticulture and Oenology. This organisation has one of the most modern experimental wineries in the world. At its experimental farms (situated in several winegrowing districts), important research into all aspects of viticulture and oenology is undertaken. South Africa has become a New World leader in terroir research, the basis of a multi-disciplinary programme carried out by the institute and the university.

The original Stellenbosch Wine Route was founded in 1971 and is the oldest in the country. Today the new Stellenbosch American Express® Wine Routes, one of the biggest tourist attractions in the Western Cape, is divided into five manageable sub-routes for tourists: Bottelary Hills, Greater Simonsberg, Helderberg, Stellenbosch Berg and Stellenbosch Valley.

The mountainous terrain, good rainfall, deep well-drained soils and diversity of terroirs are key contributors to making this a premier viticultural area. Stellenbosch has the most vineyard plantings in the winelands. Conditions in this district are particularly well suited to many of the noble grapevine varieties. The sands and alluvial soils of the valley floors give way to predominantly granitic and shale yellow and reddish Oakleaf and Tukulu soils on the slopes. The average rainfall in the district varies from 600–800 mm a year. The rapidly increasing number of wine estates and producers (more than 200) includes some of the most famous names in Cape wine. The district, with its mix of historic estates and contemporary wineries, produces excellent examples of almost all the noble wine grape varieties and is known for its blended reds.

This intensively farmed district, which has been divided up into several smaller viticultural pockets, is a very sought-after address in terms of quality wines, in particular the western, southwestern and southern slopes of Simonsberg, the Bottelary hills, Stellenbosch Mountain and Helderberg. These viticultural zones are again characterised by yellow-brown to reddish-brown, deeply weathered mountain foothill soils with good drainage and water-holding properties, typically situated at altitudes of 150–400 m.

The **Simonsberg-Stellenbosch** ward encompasses several well-known estates and private cellars. Here the mean February temperature is 21.5°C and the average annual rainfall 600–700 mm. This ward has predominantly southwesterly aspects and, because of altitudes commonly higher than 200 m, it is generally open to the cool southwesterly summer breezes originating from False Bay, some 25 km away. The wines from this ward are predominantly red, made from Cabernet Sauvignon, Merlot and Shiraz, with wines made from the locally bred Pinotage variety also regularly reaping awards locally and internationally.

There are four wards already demarcated in the hills of Bottelary in the Stellenbosch district, all of them again benefiting from cooling summer breezes. These are **Papegaaiberg**, **Devon Valley**, **Bottelary** and **Polkadraai Hills**. Several estates and private cellars have distinguished themselves in terms of quality wines in these wards, especially the Bottelary ward, Pinotage again being prominent here.

The scenic **Jonkershoek Valley** is home to several top producers and boutique wineries. The ward has a high annual rainfall in excess of 1 000 mm midway up the valley and the landscape is dominated by the majestic Twin Peaks, which tower up to 1 494 m high. The higher elevations and textured soils make the valley ideal for growing Cabernet Sauvignon and other Bordeaux varieties.

Banghoek is relatively new as a viticultural area with most vineyards planted in the last 20 years. It is mainly known for Sauvignon Blanc and red Bordeaux varieties.

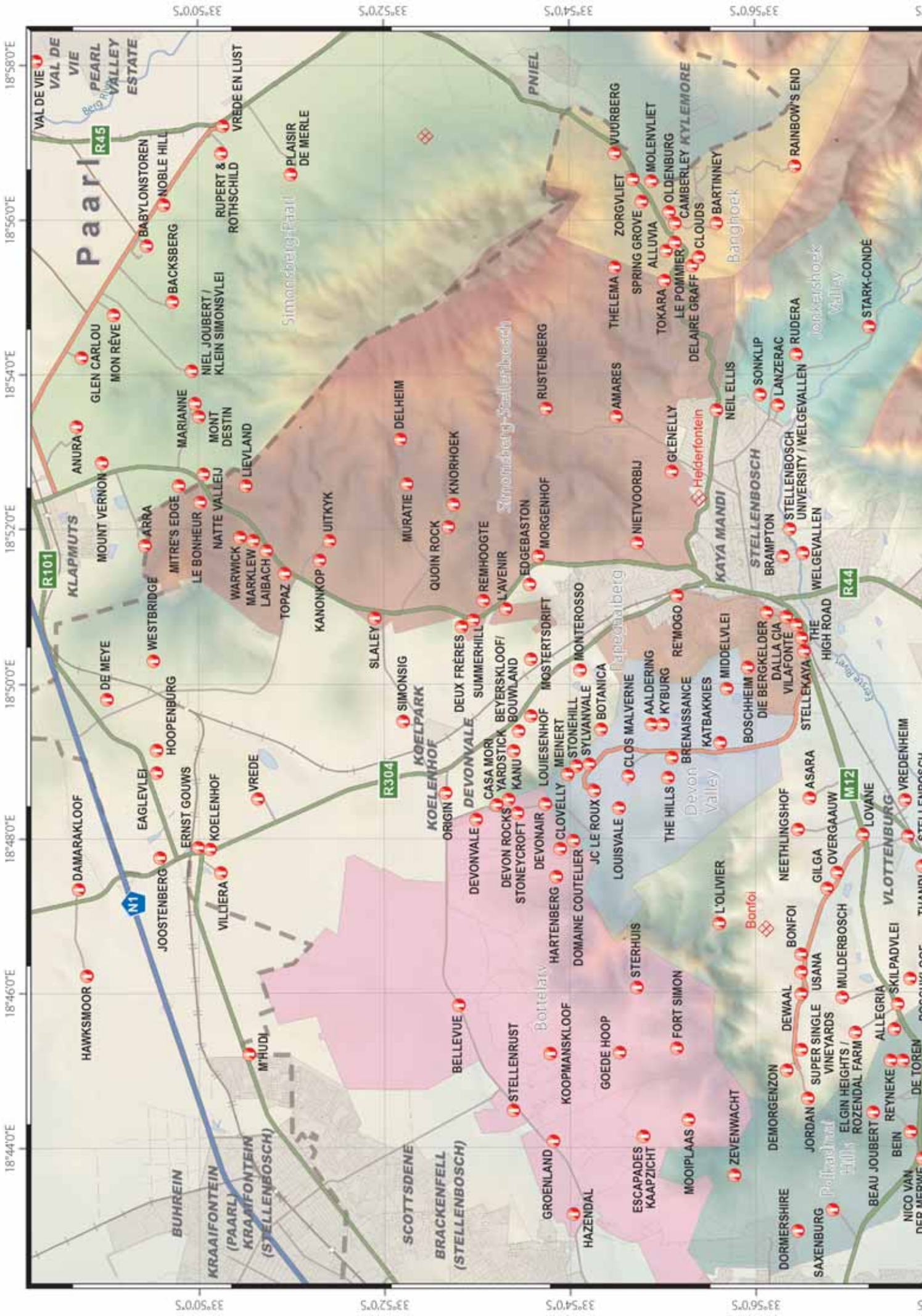
SOMERSET WEST

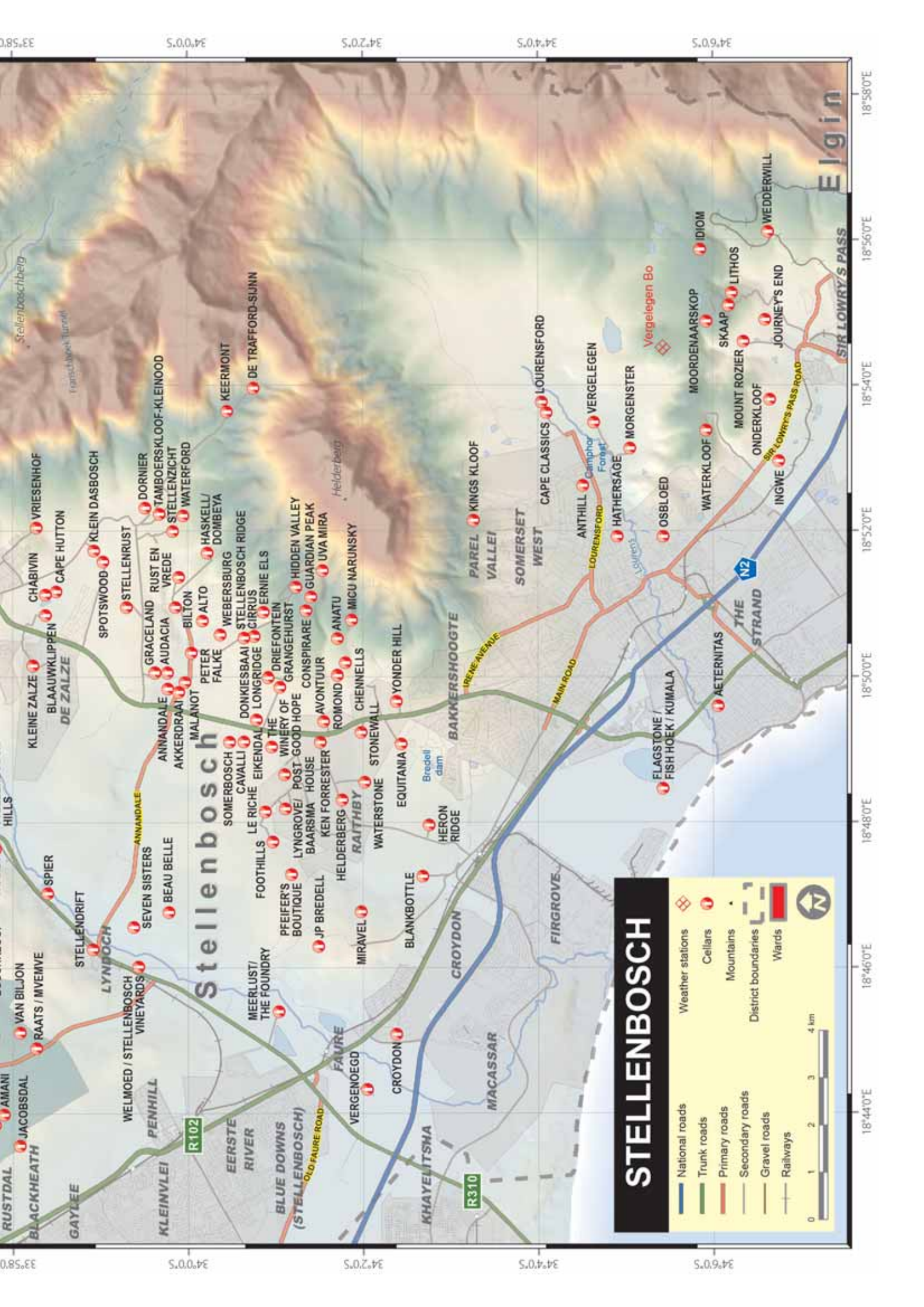
Weather Station	Vergelegen
Altitude	80 m
Dominant Influence	Proximity to False Bay, altitude
Heat Summation	1 718°C (III)
MFT	21.2°C
Continentality	9.8°C
Total Rain	542 mm
Summer Rain	177 mm
Seasonal Evaporation	902 mm
Aridity Index	184 mm
Geology	Granite and Malmesbury shale
Dominant Soils	Red- & yellow-brown Tukulu, Oakleaf, Glenrosa

STELLENBOSCH

Weather Station	Nietvoorbij
Altitude	146 m
Dominant Influence	Openness to False Bay, aspect, soil, altitude
Heat Summation	1 945°C days (III - IV)
MFT	21.5°C
Continentality	9.2°C
Total Rain	713 mm
Summer Rain	229 mm
Seasonal Evaporation	1 540mm
Aridity Index	387 mm
Geology	Granite, Malmesbury shale
Dominant Soils	Red- & yellow-brown Tukulu and Oakleaf, structured Swartland and Klappmuts, duplex Kroonstad







PAARL

Valley of the pearl rock

Region: Coastal
District: Paarl
Wards: Simonsberg-Paarl, Voor Paardeberg

Paarl, a scenic town some 50 km from Cape Town, is situated beneath a large granite outcrop, which is the second largest in the world, the biggest being Uluru (previously Ayers Rock) in Australia. It is formed by three rounded domes, the most prominent of which is named Paarl Rock (which means pearl rock) as it gleams in the early morning light, especially after it has rained.

Paarl is South Africa's third-oldest European settlement. In 1687, Cape Governor Simon van der Stel granted 21 farms along the Berg River to Dutch Free Burghers. They were followed in 1688 by the first influx of French Huguenots (Protestant refugees who fled religious persecution in their homeland). The second-oldest wine route in South Africa, it is home to KVV, the first branded wine cellar in the country. The world-renowned Nederburg Auction is held here too. Paarl has several olive farms and boasts some of the most well-known brands of olive-related products in the country. The district encompasses a large area of unspoilt natural beauty and offers several outdoor activities.

The Paarl wine district lies to the north of Stellenbosch and is bordered by the town of Wellington to the northeast, and the mountains of the Groot and Klein Drakenstein and Franschhoek ranges to the southeast. Paarl enjoys a typically Mediterranean climate. The summers are long and warm, and the mean February temperature is 23.2°C. The Berg River flows through the length of the valley and supplies a natural source of irrigation. The average annual rainfall varies between 800–900 mm – not as high as Constantia's,

for example, but enough to make irrigation advantageous only in exceptional circumstances.

Local soils fall into three main types: Table Mountain sandstone-derived soils along the Berg River, granite soils in the vicinity of Paarl itself: and weathered shales to the north. The Paarl district has many different mesoclimates and it thus succeeds with a wide range of styles and varieties. A large variety of grapes are grown in Paarl, which has the second most vineyard plantings in the winelands. These include Chardonnay, Chenin Blanc, Cabernet Sauvignon, Pinotage and Shiraz, which have the best potential, particularly the latter. More recently, typically Mediterranean varieties such as Viognier and Mourvèdre have been planted on warmer slopes.

The Paarl district includes two wards, each with its own characteristics: **Simonsberg-Paarl**, on the northern and eastern foothills of the Simonsberg, prime wine-growing terroir recognised for Chardonnay, Shiraz and red blends; and **Voor Paardeberg**, with its distinctive granite outcrop, long a source of top-quality grapes for top producers and now becoming a star in its own right.



PAARL

Weather Station	Bellevue
Altitude	152 m
Dominant Influence	Mountain footslopes, valley landscape
Heat Summation	2 146°C days (IV)
MFT	23.2°C
Continentality	11.1°C
Total Rain	945 mm
Summer Rain	273 mm
Seasonal Evaporation	1 488 mm
Aridity Index	322 mm
Geology	Granite and Malmesbury shale
Dominant Soils	Red- & yellow-brown Tukulu and Oakleaf, structured Swartland and Klapmuts



18°50'0"E

33°40'0"S

33°50'0"S

18°50'0"E



Swartland

Tygerberg

Stellenbosch

BABYLON'S PEAK

STONE RIDGE

DORAN

BERNHEIM

VONDELING

SCALI

AFRICAN TERROIR

AYAMA

OUDE DENNEBOOM

PERDEBERG

NELSON FAMILY

WINDMEUL

DOMAINE BRAHMS

CROWS NEST

RIDGEBACK

RHEBOKSKLOOF

PEARL MOUNTAIN

R302

R44

EENZAAMHEID

BLACK PEARL

RUITERSVLEI

LANDSKROON

SPICE ROUTE

FAIRVIEW / GOATS / LA CAPRA

PAINTE

KLE

DRAAK

WELGEMEEND

WELGELEE

SIMONSVLEI

HAWKSMOOR

DAMARAKLOOF

ANURA

GLEN CARLOU

MON RÉVE

BABY

JOOSTENBERG

HOOPENBURG

DE MEYE

ARRA

MOUNT VERNON

MONT DESTIN

MARIANNE

NIEL JOUBERT / KLEIN SIMONSVLEI

M'HUDI

ERNST GOUWS

VILLIERA

WESTBRIDGE

MITRE'S EDGE

LE BONHEUR

WARWICK

MARKLEW

LAIBACH

KANONKOP

UITKYK

Simonsberg-Stellenbosch

Simonsberg-Paarl

Bottelary

PLAISIR

R312

R304

Durbanville

Joostenberg

LE JO

Paarlberg

Paarl

BERGHEIM

D

PAINTE

KLE

DRAAK

SIMONSVLEI

WELGELEE

ANURA

GLEN CARLOU

MON RÉVE

BABY

NO

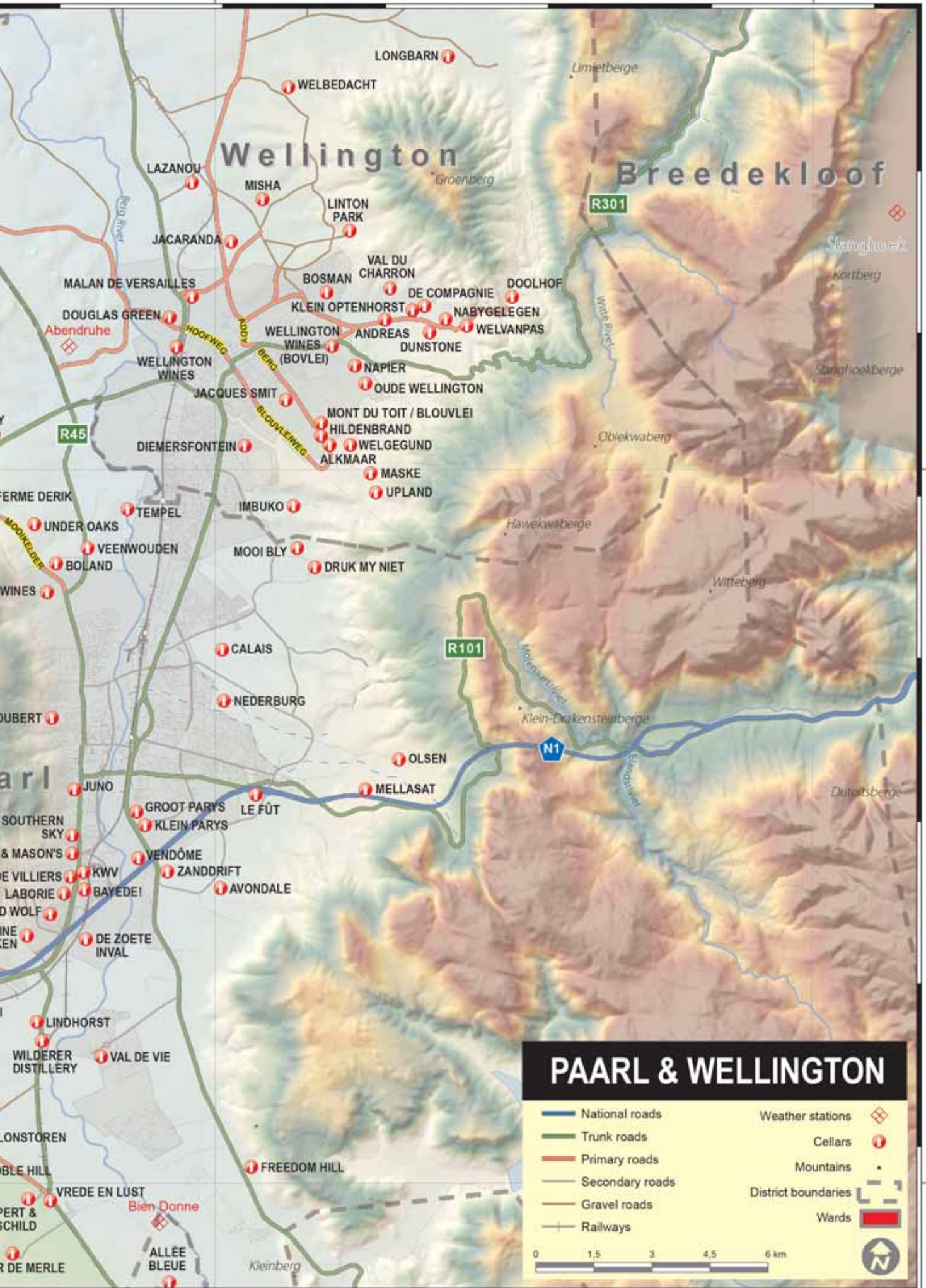
RUP

ROTHS

PLAISIR

19°0'0"E

19°10'0"E



PAARL & WELLINGTON

National roads	Weather stations
Trunk roads	Cellars
Primary roads	Mountains
Secondary roads	District boundaries
Gravel roads	Wards
Railways	

0 1,5 3 4,5 6 km

19°0'0"E

19°10'0"E

33°40'0"S

33°50'0"S

WELLINGTON

Nursery of the vine

Region: Coastal

District: Wellington

Wards: Blouvllei, Bovlei, Groenberg, Limietberg, Mid-Berg River

Wellington, which is a mere 45-minute drive from Cape Town, is a burgeoning wine district producing some promising wines. The valley was initially called Val du Charron (Valley of the Wagonmakers) and was the last outpost before adventurers, pioneers and travellers attempted the arduous journey into the hinterland with their ox-drawn wagons.

There were two attempts to name Wellington but it was only when Sir George Napier suggested that the town should be named after 'England's greatest soldier' that, in 1840, the town of Wellington was proclaimed after the Duke who defeated Napoleon at Waterloo. The Bainskloof Pass, built by the famous Scotsman Andrew Geddes Bain in 1840, was initially the only gateway to the north until the Du Toitskloof Pass was opened in 1949. The warm-hearted valley offers a variety of activities including scenic wine walks, game drives and mountain biking trails.

Some vineyards stretch over alluvial terraces towards the Swartland's rolling hills and wheat fields, while others are found in the foothills of the towering Hawequa and Groenberg mountains, where folds and valleys create unique mesoclimates. Soils here are predominantly derived from granite and Table Mountain sandstone, with Clovelly and Hutton types

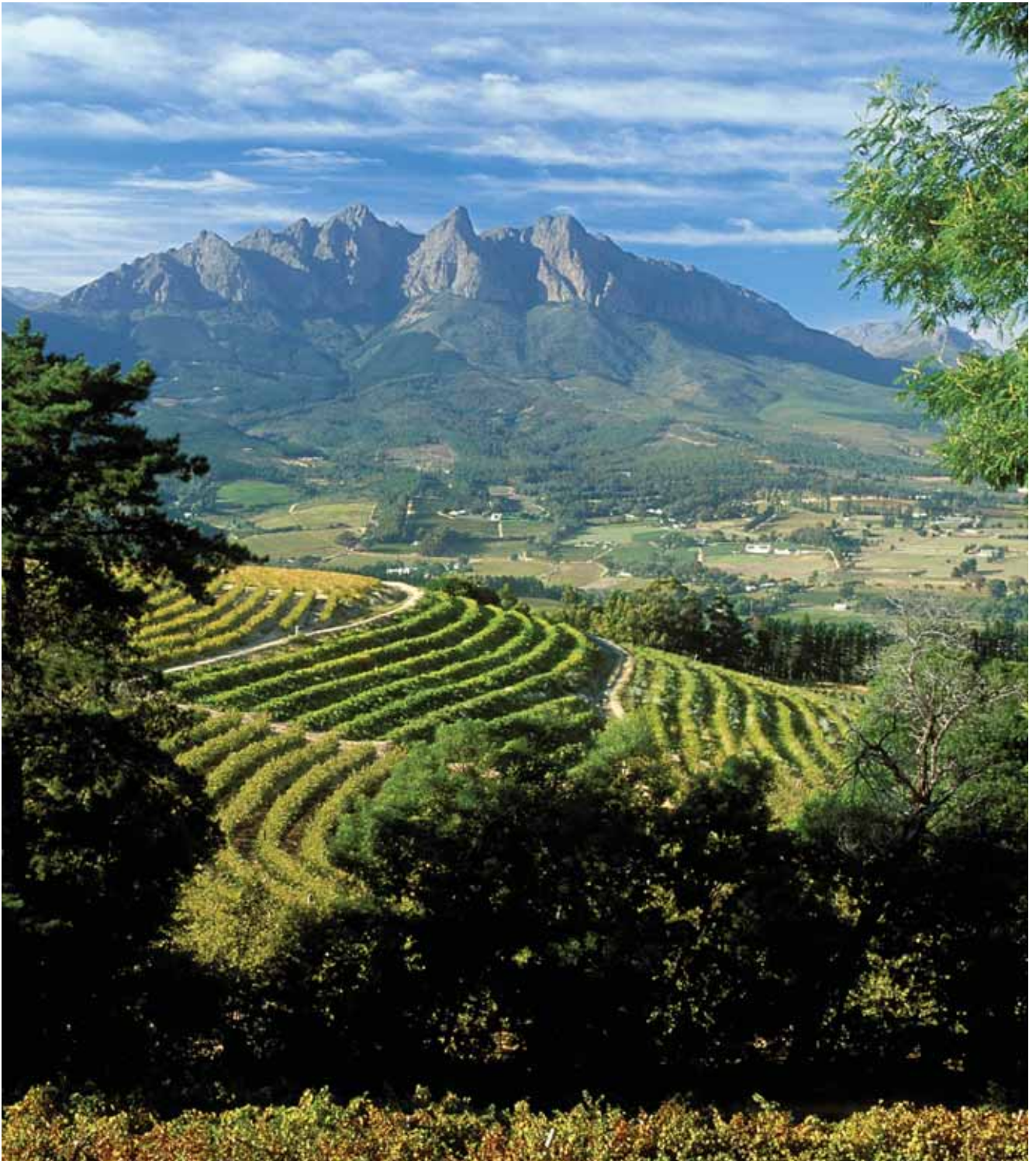
prevalent. Closer to the Berg River, alluvial soils are found, as well as soils derived from Malmesbury shale on the rolling hills landscapes.

Wellington, which supplies over 85% of the South African wine industry with cuttings, has some 30 grapevine nurseries and also boasts wine producers ranging from boutique wineries to historical estates. In winter, snow sometimes covers the mountain tops and night temperatures are generally cooler than at the coast some 60 km away. The average annual rainfall is 741 mm and the mean February temperature is 23.2°C. The most widely planted white-wine variety is Chenin Blanc. When it comes to red-wine varieties, Cabernet Sauvignon leads the way, followed by Shiraz and Pinotage. The Wellington district is increasingly being reputed for the quality of its reds, Shiraz in particular, and red blends.



WELLINGTON

Weather Station	Abenrude
Altitude	100–500 m
Dominant Influence	Mountain slopes, valley landscapes, soils
Heat Summation	2 146°C days (IV)
MFT	23.2°C
Continentality	11.1°C
Total Rain	741 mm
Summer Rain	104 mm
Seasonal Evaporation	1 090 mm
Aridity Index	322 mm
Geology	Malmesbury shale and Granite
Dominant Soils	Structured Swartland and Klapmuts, duplex Kroonstad, stony Glenrosa



S.0.2E.3E

S.0.4E.0S

S.0.6E.3E

19°40'E

19°20'E

19°00'E

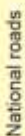



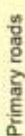



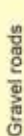



18°58'0"E

S.0.2E.3E

S.0.4E.0S

S.0.6E.3E

WELLINGTON

	National roads		Weather stations
	Trunk roads		Cellars
	Primary roads		Mountains
	Secondary roads		District boundaries
	Gravel roads		Wards
	Railways		

0 0.5 1 1.5 2 2.5 3 km

LONGBARN

WELBEDACHT

Wellington

MISHA

LINTON PARK

JACARANDA

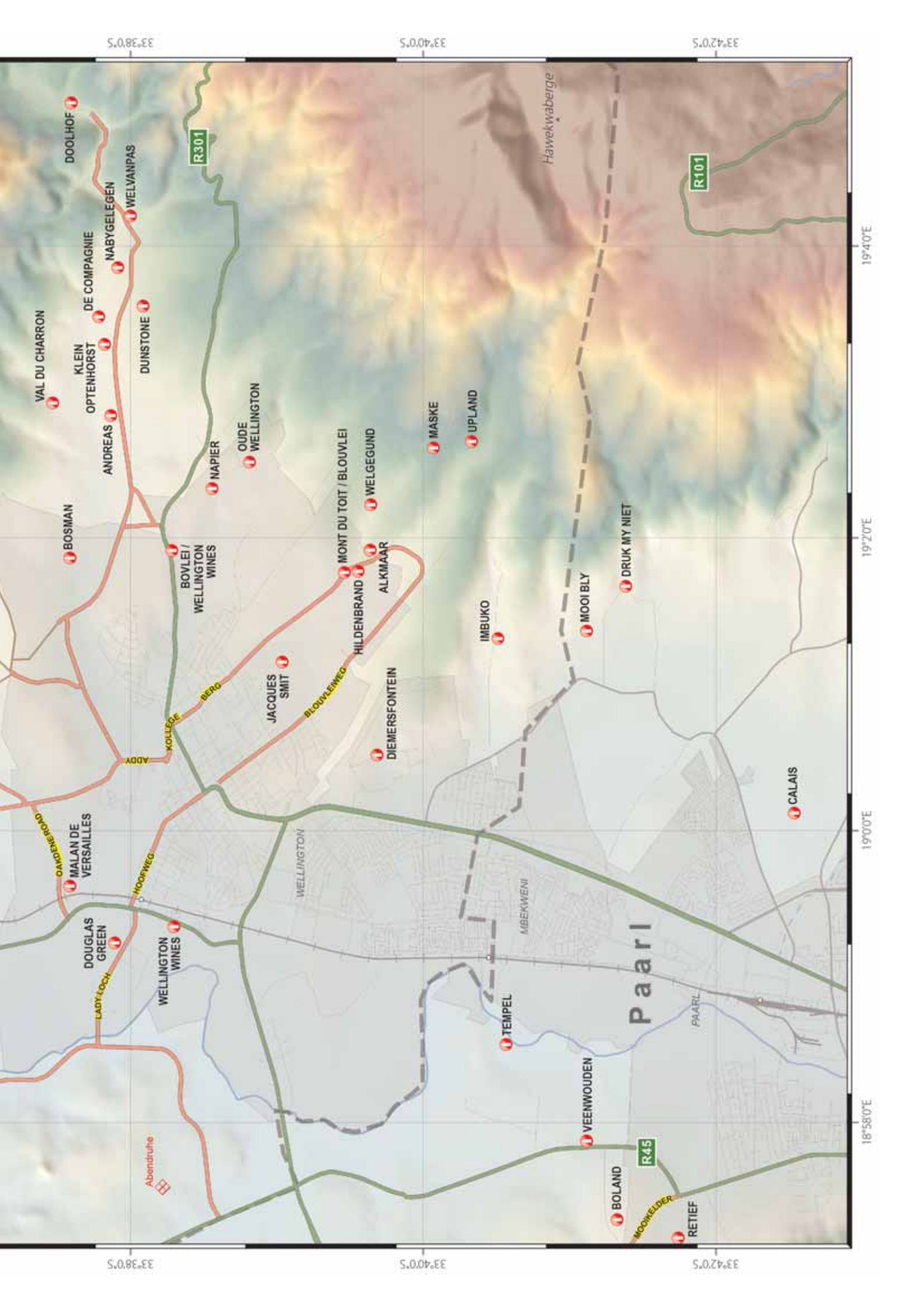
LAZANOU

R44

Groenberg

Berg River

Berg River



FRANSCHHOEK

Valley of romance

Region: Coastal

District: Franschhoek/Franschhoek Valley

The valley of Franschhoek has retained its French Huguenot character, which is reflected in the names of many of the wine farms, guesthouses and restaurants. The valley offers visitors numerous walks and biking trails in the surrounding mountains, and many farms offer trout fishing in streams and dams, as well as horse riding.

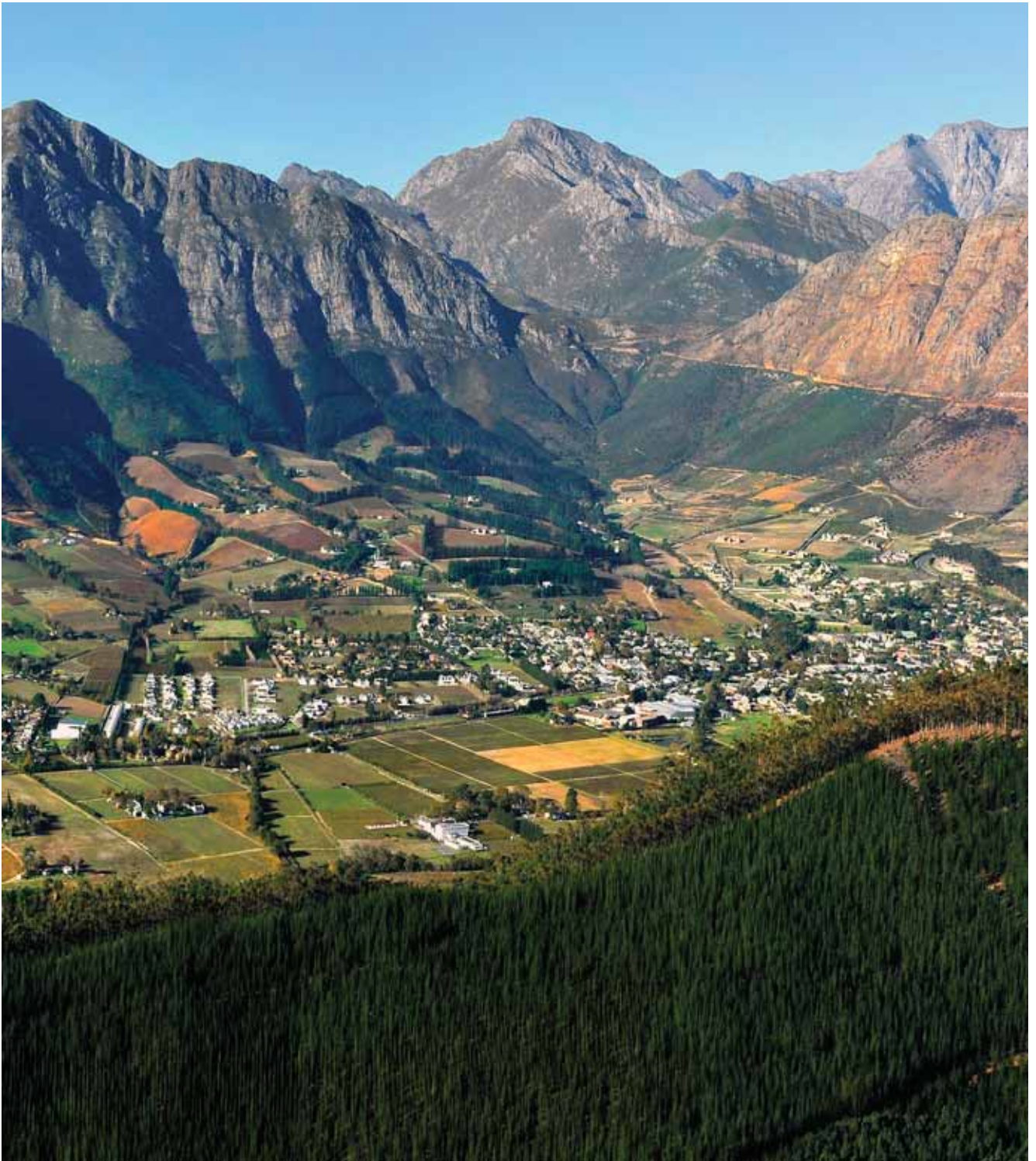
The district lies to the southeast of Paarl and is enclosed on three sides by towering mountains: the Groot Drakenstein and Franschhoek mountains meet at the top of the valley, while the Klein Drakenstein and Simonsberg mountains are found further down towards Paarl. Streams from the higher peaks flow down to the valley floor where they converge to form the Berg River, fast-flowing in winter, when snow regularly covers the mountain tops, and a mere stream fed by the Wemmershoek Dam in summer. The average annual rainfall is between 900–1 050 mm. The mean February temperature is 23°C.

The climate and soil conditions vary considerably. Vines are planted on the banks of rivers and up mountain slopes, resulting in a wide range of wines. The most widely planted white-wine varieties are Sauvignon Blanc, Chardonnay and Semillon. Cabernet Sauvignon, Shiraz and Merlot are the most widely planted red-wine varieties. The valley is mainly recognised for the quality of its Cabernet Sauvignon, Chardonnay and Semillon – there are Semillon vines in the valley which are over 100 years old. Franschhoek is also regarded as one of South Africa's leading Méthode Cap Classique (MCC) producing areas and has its own MCC route.



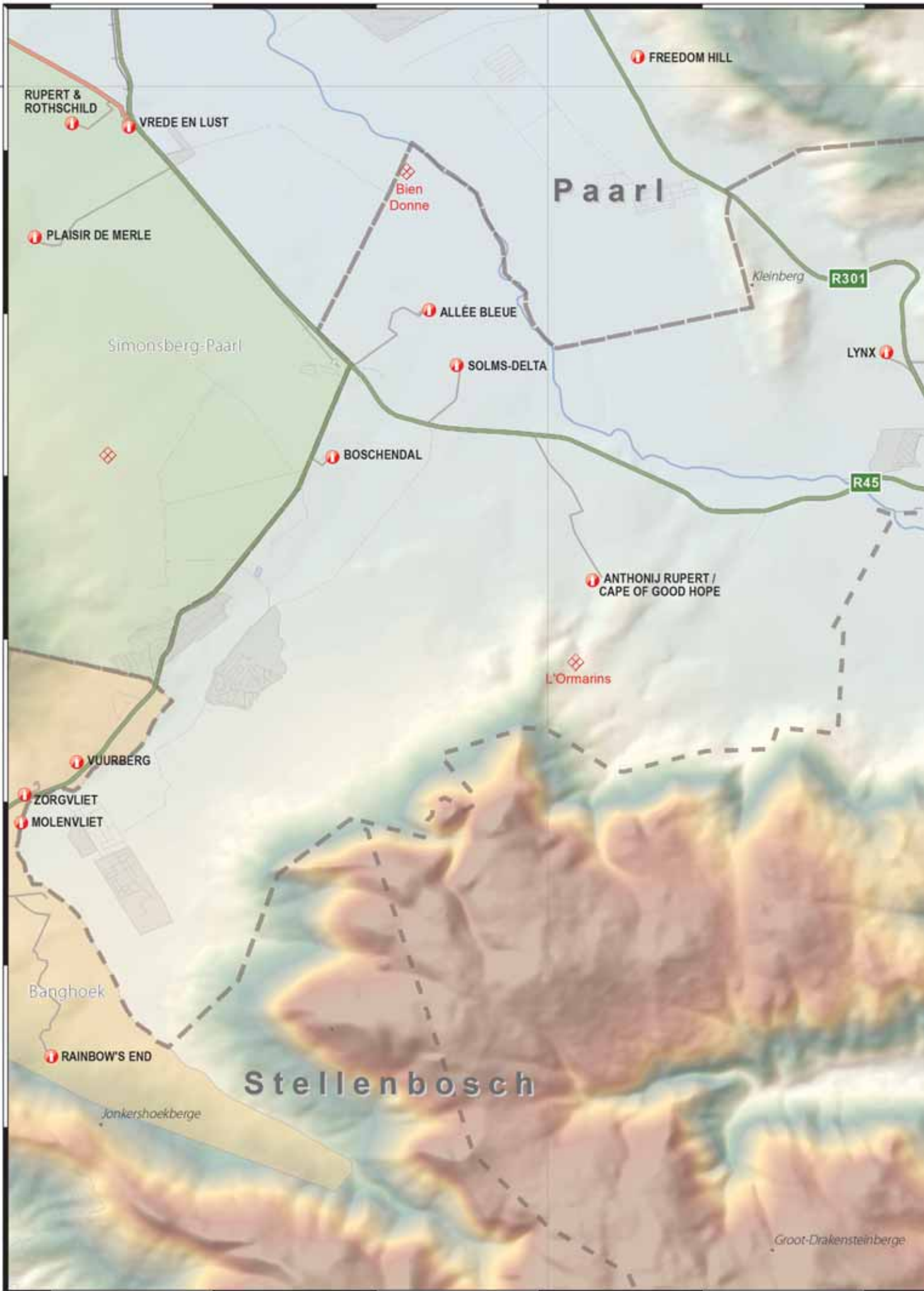
FRANSCHHOEK

Weather Station	La Motte
Altitude	206 m
Dominant Influence	Secluded northwest-southeast orientated valley
Heat Summation	2 123°C days (IV)
MFT	23°C
Continentality	10.7°C
Total Rain	853 mm
Summer Rain	256 mm
Seasonal Evaporation	1 271 mm
Aridity Index	253 mm
Geology	Sandstone
Dominant Soils	Dark to light coloured alluvial Dundee, Red- & yellow-brown Oakleaf and Tukulu



19°00'E










33°50'0"S




19°00'E

33°50'05"

FRANSCHHOEK

 National roads	 Cellars
 Trunk roads	 Weather stations
 Primary roads	 District boundaries
 Secondary roads	 Mountains
 Gravel roads	 Wards
 Railways	

0 0.9 1.8 2.7 3.6 km



Franschhoek



Overberg

Westwards

DARLING & SWARTLAND

Region: Coastal
District: Darling
Ward: Groenekloof

Darling is known for the exceptional quality of its Sauvignon Blanc, the variety which initially spearheaded the viticultural progress of this district, which is just an hour's drive away from Cape Town. At its heart lies the charming West Coast village of Darling, tucked away between vineyard-covered hills and golden wheat fields, which features beautifully restored Victorian houses. The area is famous for its colourful display of wild flowers in spring and boasts several wild flower reserves. The country's biggest eco-friendly music festival, Rocking the Daisies, is held here each year.

Some 10 km from the cold Atlantic Ocean is the Darling range of hills, running parallel to the coast and consisting of erosion exposed granite intrusions. Although regionally part of the Swartland, this range of hills is vastly different in terms of climate, favouring the cultivation of more delicate varieties. The district has a mean February temperature of 22.7°C. Average annual rainfall is 586 mm.

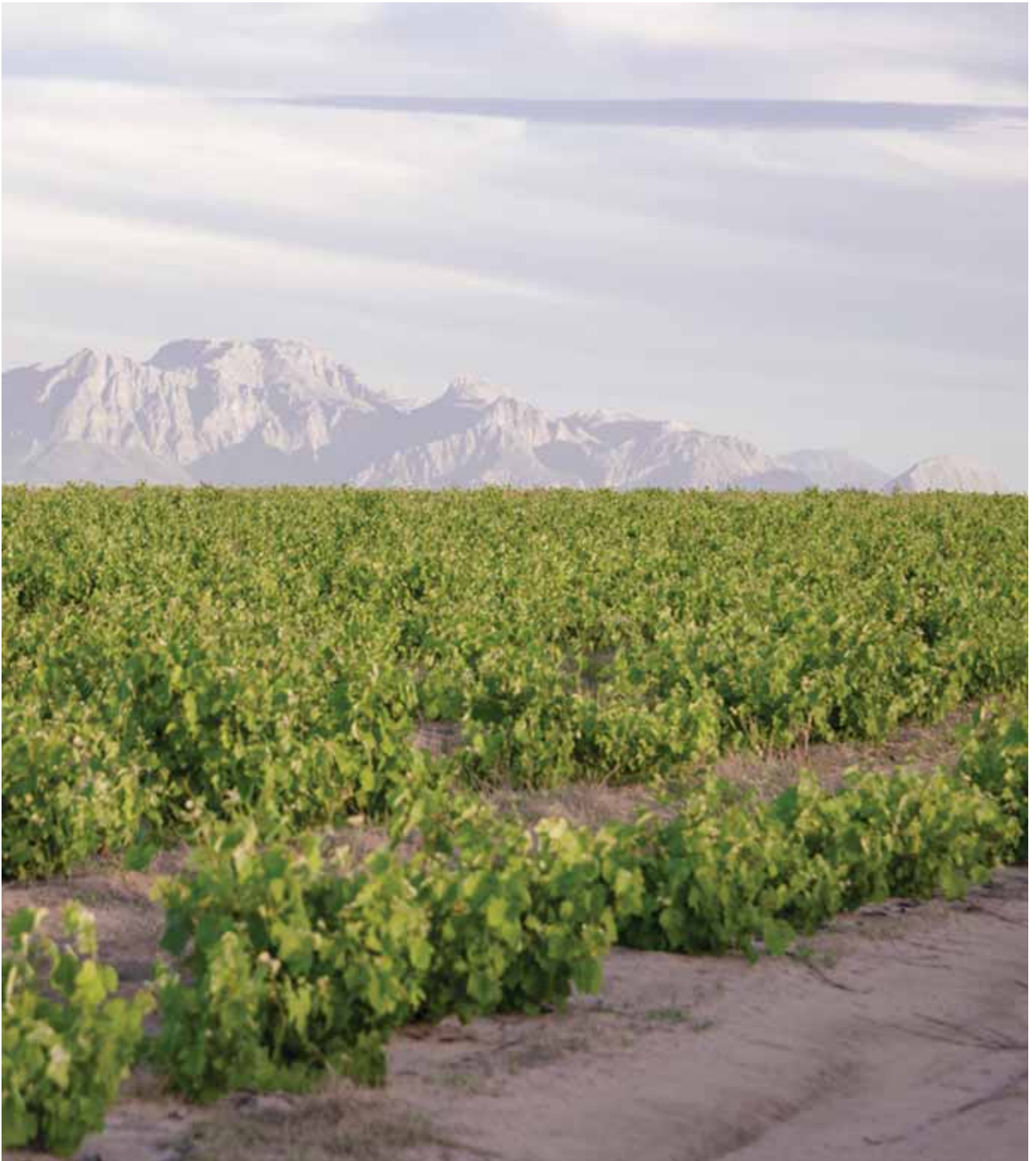
The **Groenekloof** ward, which benefits by being protected from often harsh winds from the ocean by its predominantly eastern aspects, falls within

this district and is known for the exceptional quality of its Sauvignon Blanc. Here the climatic conditions are very similar to those of Durbanville. Again, this ward is characterised by deep reddish-brown soils formed from pre-weathered granite, with a good water-holding capacity, making viticulture without irrigation possible. Grapes from this ward are highly contested for by various cellars and winemakers, proving its merit. The most coveted grapes from this ward are Sauvignon Blanc, Cabernet Sauvignon, Merlot, Shiraz and, to a lesser extent, Pinot Noir.



DARLING

Weather Station	Darling
Altitude	110 m
Dominant Influence	Proximity to cold Atlantic Ocean, altitude, soil
Heat Summation	1 739°C (III)
MFT	22.7°C
Continentality	10.1°C
Total Rain	586 mm
Summer Rain	173 mm
Seasonal Evaporation	1 882 mm
Aridity Index	580 mm
Geology	Granite
Dominant Soils	Red- & yellow-brown Oakleaf and Tukulu















18°30'0"E

18°20'0"E

33°20'5"E

33°20'5"E

DARLING

 National roads	 Weather stations
 Trunk roads	 Cellars
 Primary roads	 Mountains
 Secondary roads	 District boundaries
 Gravel roads	 Wards
 Railways	


0 2 4 6 8 km


Swartland


Darling

 FRANKI'S

 SPEKULASIE

 WITINGTON

 ORMONDE

 LANNER HILL

 NUWELAND

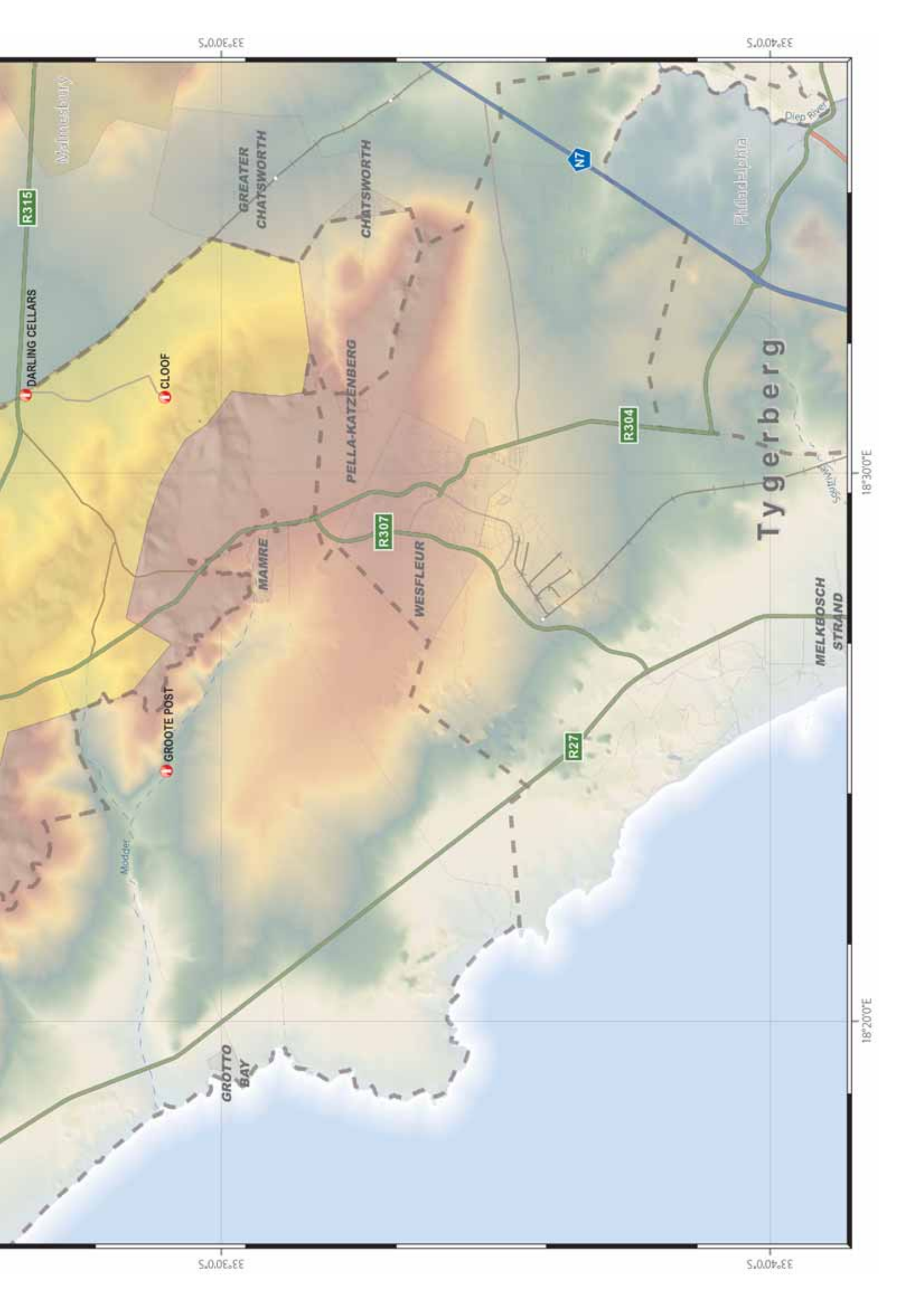
Klipberg

Rondeberg

Groenekloof

Malmesbury

Malmesbury



33°40'S

33°40'S

33°30'S

33°40'S

18°30'E

18°20'E

Tygerberg

R315

DARLING CELLARS

CLOOF

GROOTE POST

GROOTTO BAY

GREATER CHATSWORTH

CHATSWORTH

PELLA-KATZENBERG

MAMRE

WESFLEUR

R304

R307

R27

MELKBOSCH STRAND

Philippolis

Dier River

Middel

Waldmeersburg

Region: Coastal
District: Swartland
Wards: Malmesbury, Riebeekberg, Riebeeksrivier, St Helena Bay

The Swartland literally translated means 'the black land'. The area takes its name from the now endangered indigenous renosterbos (rhino bush) which once turned the landscape a dark colour at certain times of the year. This country wine and olive route is renowned for its warm Swartland hospitality. Walks and hikes are popular, as are 4X4 trails, and for the more adventurous there's hang-gliding, paragliding, canoeing, clay-pigeon shooting and horse riding, to name but a few.

Traditionally a grain-producing area, in summer the Swartland is marked by green pockets of vineyards. These clamber up the foothills of the mountains (Piketberg, Porterville, Riebeekberg and Perdeberg) and spread along the banks of the Berg River, where the soil is deep and water retention is such that dryland cultivation can be practised. Low-yielding bush vines, many of them 30 years and older, can be found mainly in the Malmesbury area.

The average annual rainfall for the largest district in the Western Cape is between 300–500 mm per year, with around 35–40% falling during the growing season. The mean February temperature is 23.3°C. The soils are mainly developed from Malmesbury group shales, a sediment older (1 000–550 million years ago) than the Table Mountain sandstone of the coastal region (400–300 million years ago) and the Bokkeveld shale of the Little Karoo, but soils derived from Cape granite intrusions (600–500 million years ago) also occur. Where material from these granites and Malmesbury shales have mixed with the Table Mountain sandstone found here, particularly in the mountain foothills and

next to rivers, you'll find deeper soils with higher vigour potential, suitable for vineyard plantings. However, the most coveted soils are the deep, well-drained reddish-brown soils developed from pre-weathered granite intrusions north of Malmesbury and along the Darling range of hills. The district of Swartland borders Piketberg to the north, which is not dissimilar in both geography and climate. Malmesbury shale is predominant here.

Increasing percentages of red-wine varieties, including Cabernet Sauvignon, Pinotage and Shiraz, are being grown here, as well as Chardonnay, Chenin Blanc and Sauvignon Blanc. The Swartland was traditionally a source of robust, full-bodied red wines and high quality fortified wines. The district has more recently also become associated with award-winning Chenin Blanc, and Mediterranean-style red and white blends. Bringing fresh energy and recognition to the area is a group of like-minded producers, the Swartland Independent Producers, who are working together to express a true sense of place in the wines of the Swartland.



MALMESBURY

Weather Station	Malmesbury
Altitude	152 m
Dominant Influence	Openness to cold Atlantic Ocean, soils
Heat Summation	2 058°C days (IV)
MFT	23.3°C
Continentality	9.4°C
Total Rain	523 mm
Summer Rain	154 mm
Seasonal Evaporation	1 728mm
Aridity Index	559 mm
Geology	Shale, Granite
Dominant Soils	Structured Klapmuts and Swartland, red- & yellow-brown Oakleaf and Tukulú



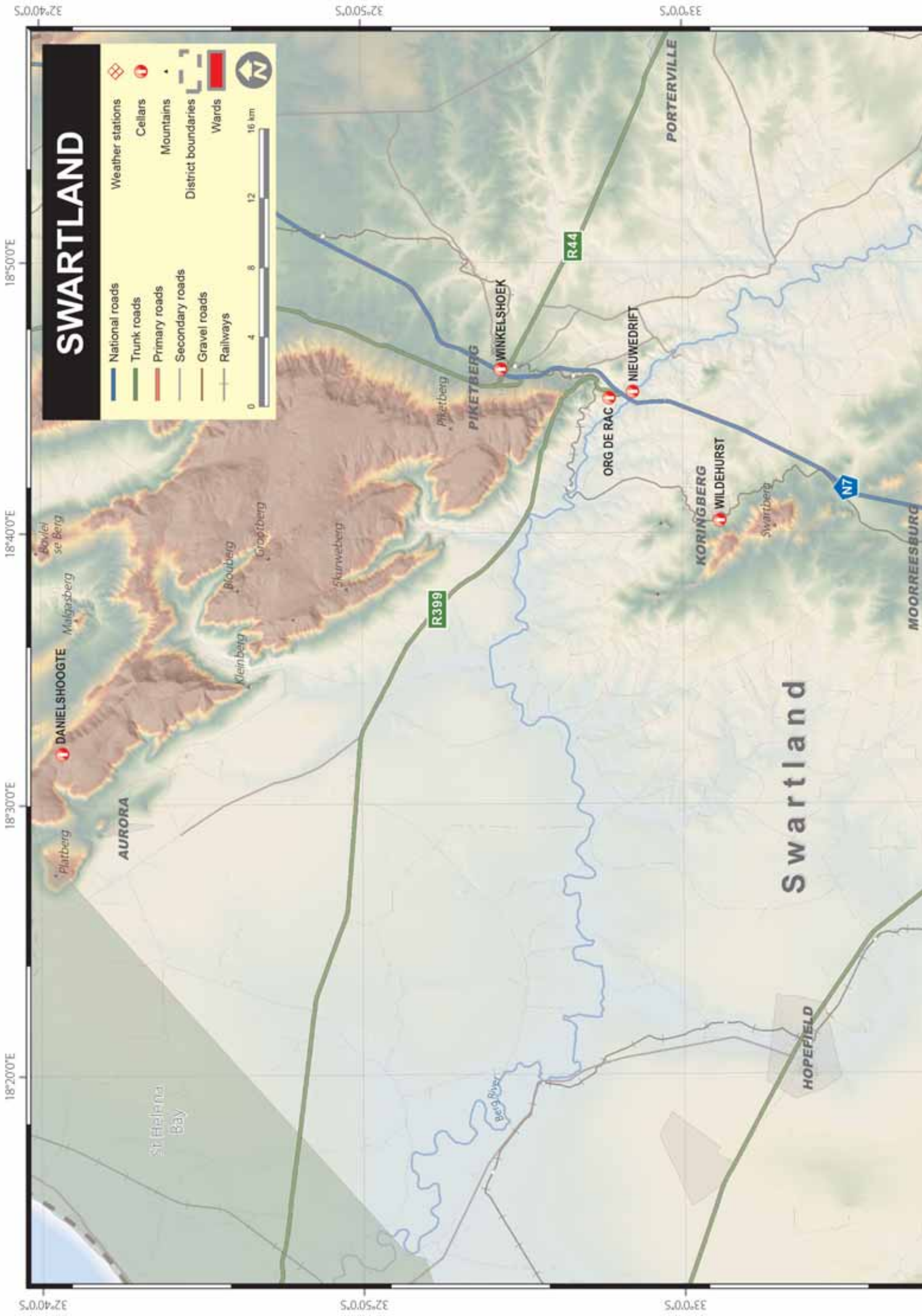
SWARTLAND

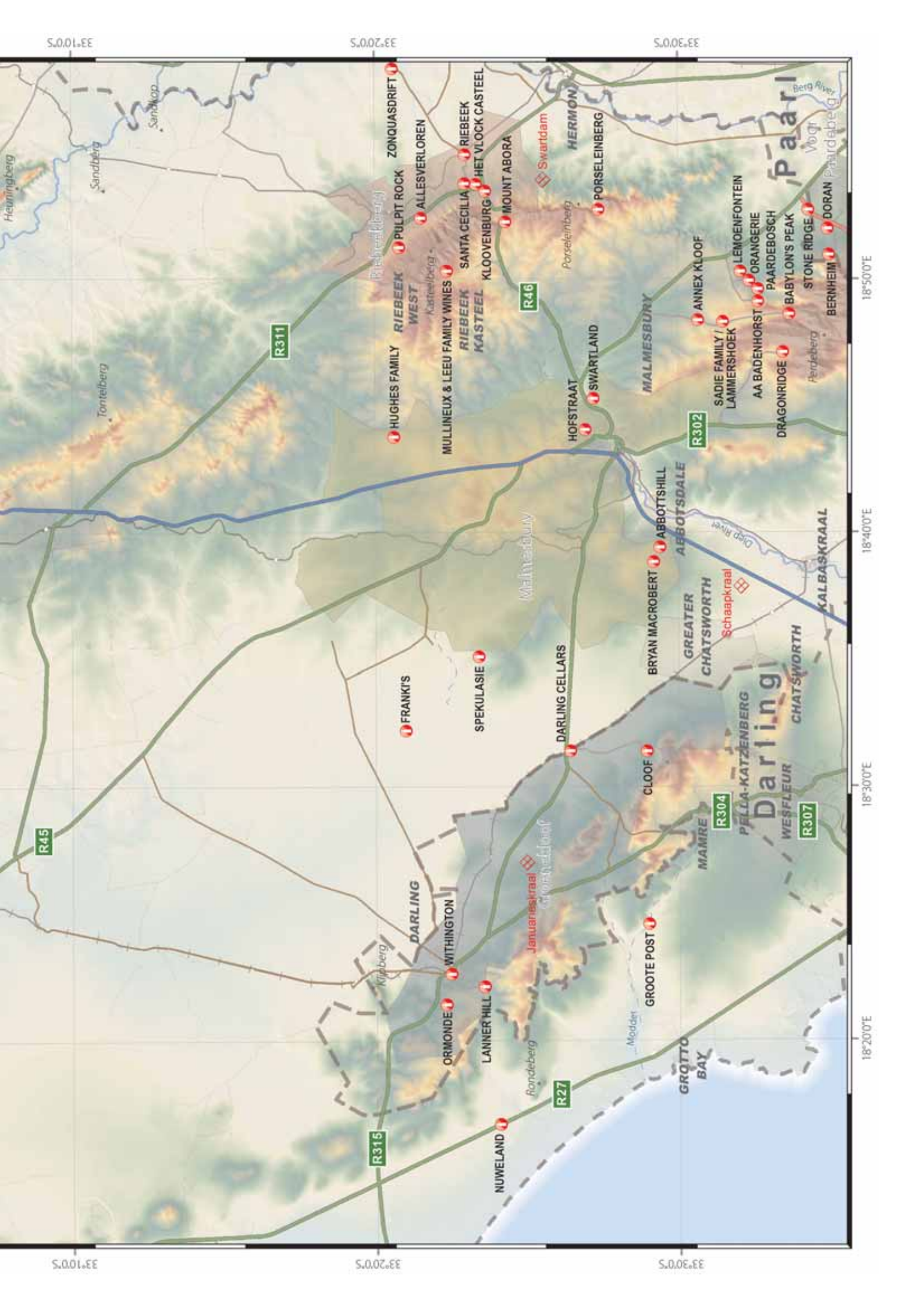
National roads
Trunk roads
Primary roads
Secondary roads
Gravel roads
Railways

Weather stations
Cellars
Mountains

District boundaries
Wards

0 4 8 12 16 km





33°10'0"S

33°20'0"S

33°30'0"S

33°10'0"S

33°20'0"S

33°30'0"S

18°50'0"E

18°40'0"E

18°30'0"E

18°20'0"E

TULBAGH

The secluded valley

Region: Coastal
District: Tulbagh

The secluded **Tulbagh** valley is surrounded on three sides by the Groot Winterhoek, Witzenberg and Obiqua mountains. The town of Tulbagh boasts 32 provincial monuments on one street and the surrounding vineyards grow alongside orchards and fields of wheat. The wine route is dotted with graceful old estates, interspersed with conspicuously new vineyards and architecturally designed state-of-the-art cellars, as well as a handful of micro-producers and boutique wineries. Here history and tradition work hand-in-hand with innovation. Today's high-tech water management and advanced viticultural practices are ensuring that the true potential of this area is starting to be realised.

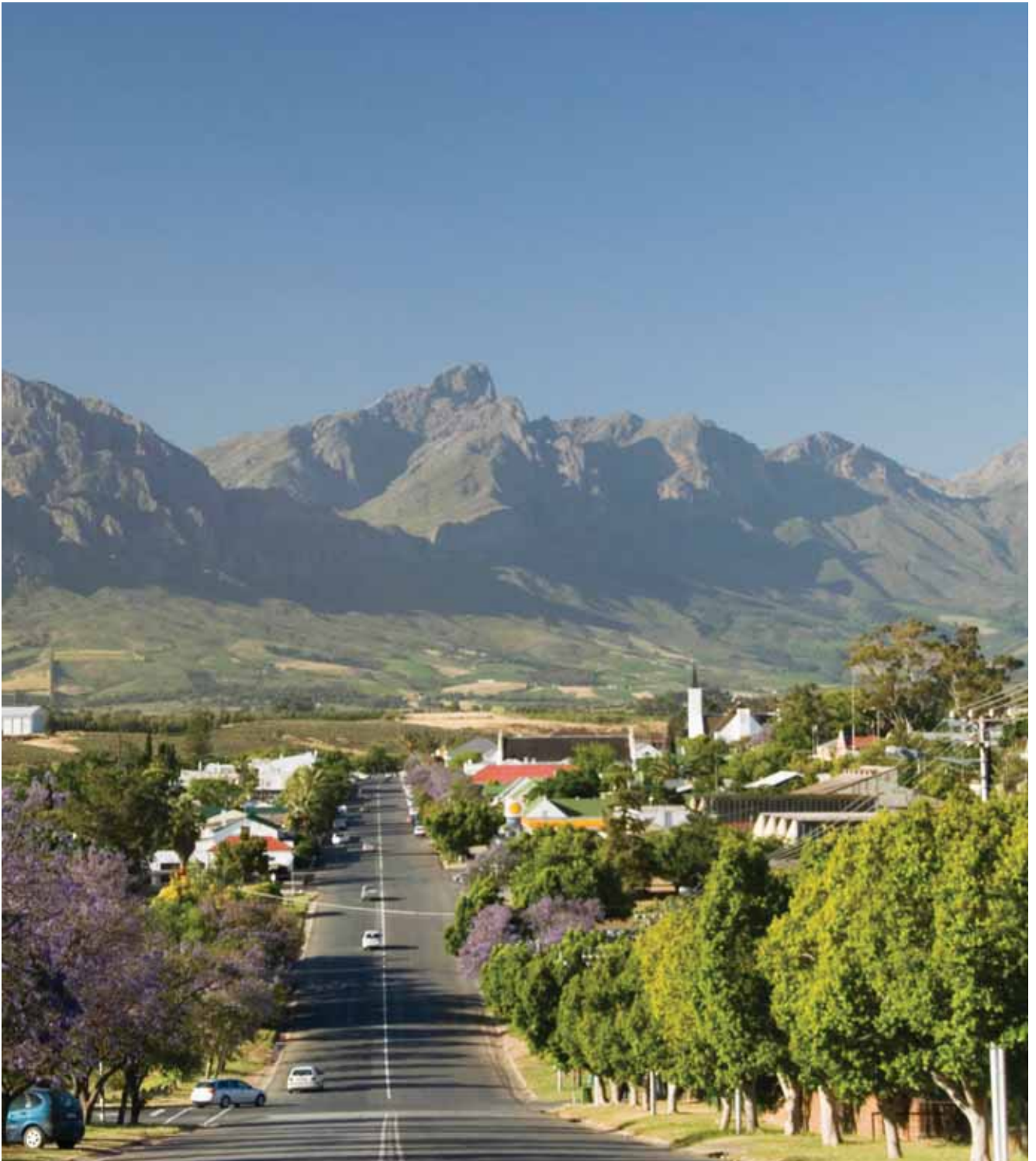
The Tulbagh area is characterised by various combinations of height above sea level, aspect, slopes and soil types. Soils in the valley are extremely variable, from sandy soils on the valley floor to stony soils on the old, higher terraces and mountain slopes. At higher altitudes, soils from the Malmesbury Supergroup schists and phyllites predominate, as well as more recent deep yellow boulder bed deposits which offer medium growing potential. Average rainfall is 551 mm per annum but rainfall varies due to different microclimates. The average rainfall is much higher up against the mountains than lower down in the valley. Summers are warm, with a mean February temperature of 24°C, although the mountainous terrain creates numerous different mesoclimates which can be used to great advantage.

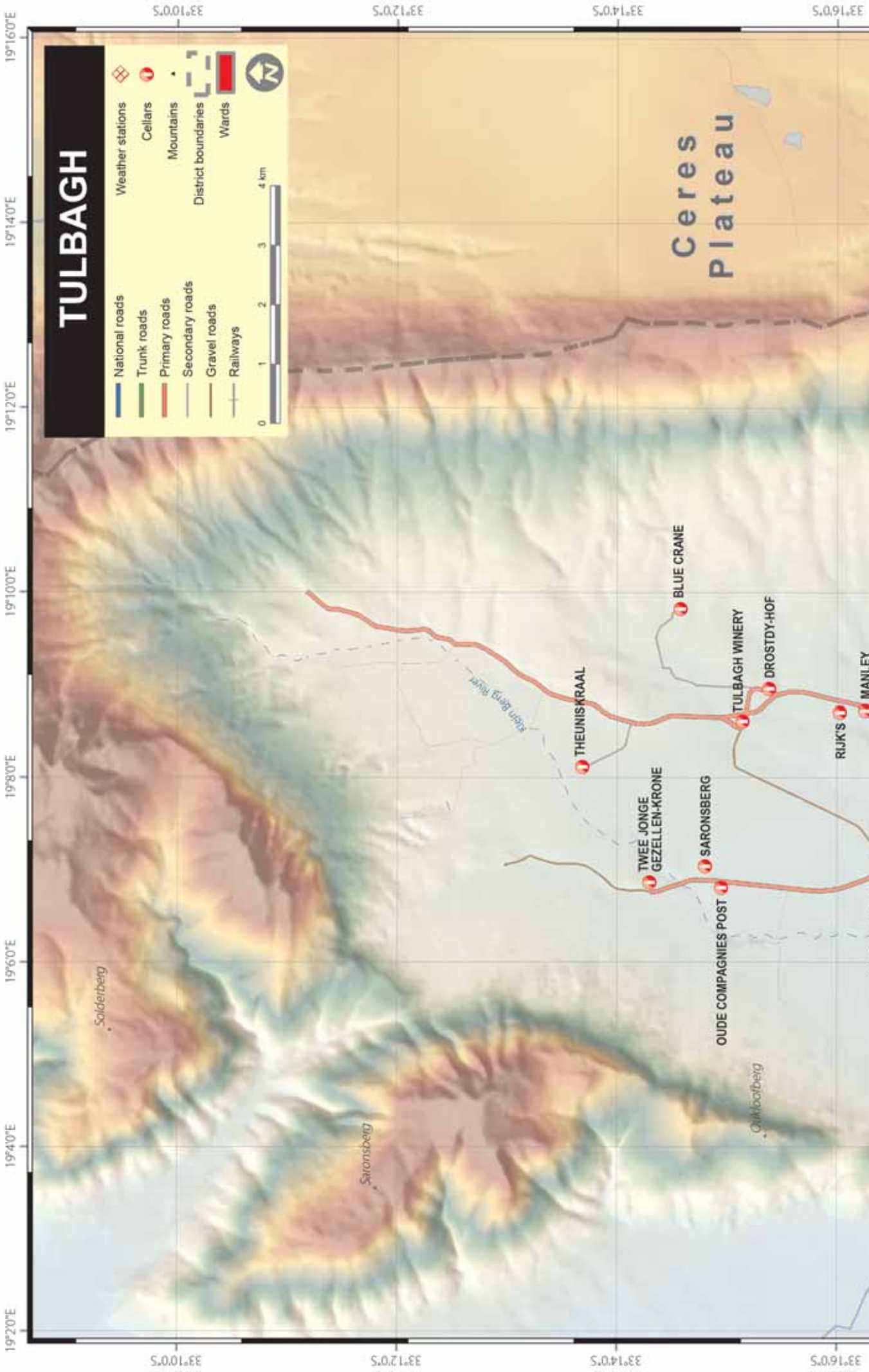
Unique to the valley's geographical composition is the 'cold trap', a phenomenon which occurs as a result of the encapsulating mountains, shaped like a horseshoe, with Tulbagh situated at the northern head of this 'bowl'. Within this bowl, once a prehistoric lake, the cold air of the previous night lies undisturbed. With no air movement from the sides, this cold bubble is trapped under the warming air above as the sun makes its way from east to west. The most planted white-wine variety is Chenin Blanc, followed by Colombard and Chardonnay. Red-wine varieties planted include predominantly Shiraz, Cabernet Sauvignon, Pinotage and Merlot. This inland district is noted for the quality of its Shiraz, which is consistently awarded the highest accolades, and its excellent Méthode Cap Classiques. Tulbagh has also gained a reputation for its top quality Pinotage and red blends.















TULBAGH

Weather Station	Drostdy Wine Cellar
Altitude	190 m
Dominant Influence	Secluded, southorientated valley
Heat Summation	2 249°C days (IV-V)
MFT	24°C
Continentality	11.7°C
Total Rain	551 mm
Summer Rain	175 mm
Seasonal Evaporation	n.a.
Aridity Index	n.a.
Geology	Tertiary boulderbeds (sandstone), Schist (shale)
Dominant Soils	Yellow, stony Clovelly and Avalon, residual Glenrosa, structured Swartland and Klapmuts





TULBAGH

	National roads		Weather stations
	Trunk roads		Cellars
	Primary roads		Mountains
	Secondary roads		District boundaries
	Gravel roads		Wards
	Railways		

0 1 2 3 4 km

Ceres Plateau

Solderberg

Saronsberg

Oukloofberg

Obhekwaberge

BLUE CRANE

THEUNISKRAAL

TWEE JONGE
GEZELLEN-KRONE

SARONSBERG

OUDE COMPAGNIES POST

TULBAGH WINERY

DROSTDY-HOF

RIJK'S

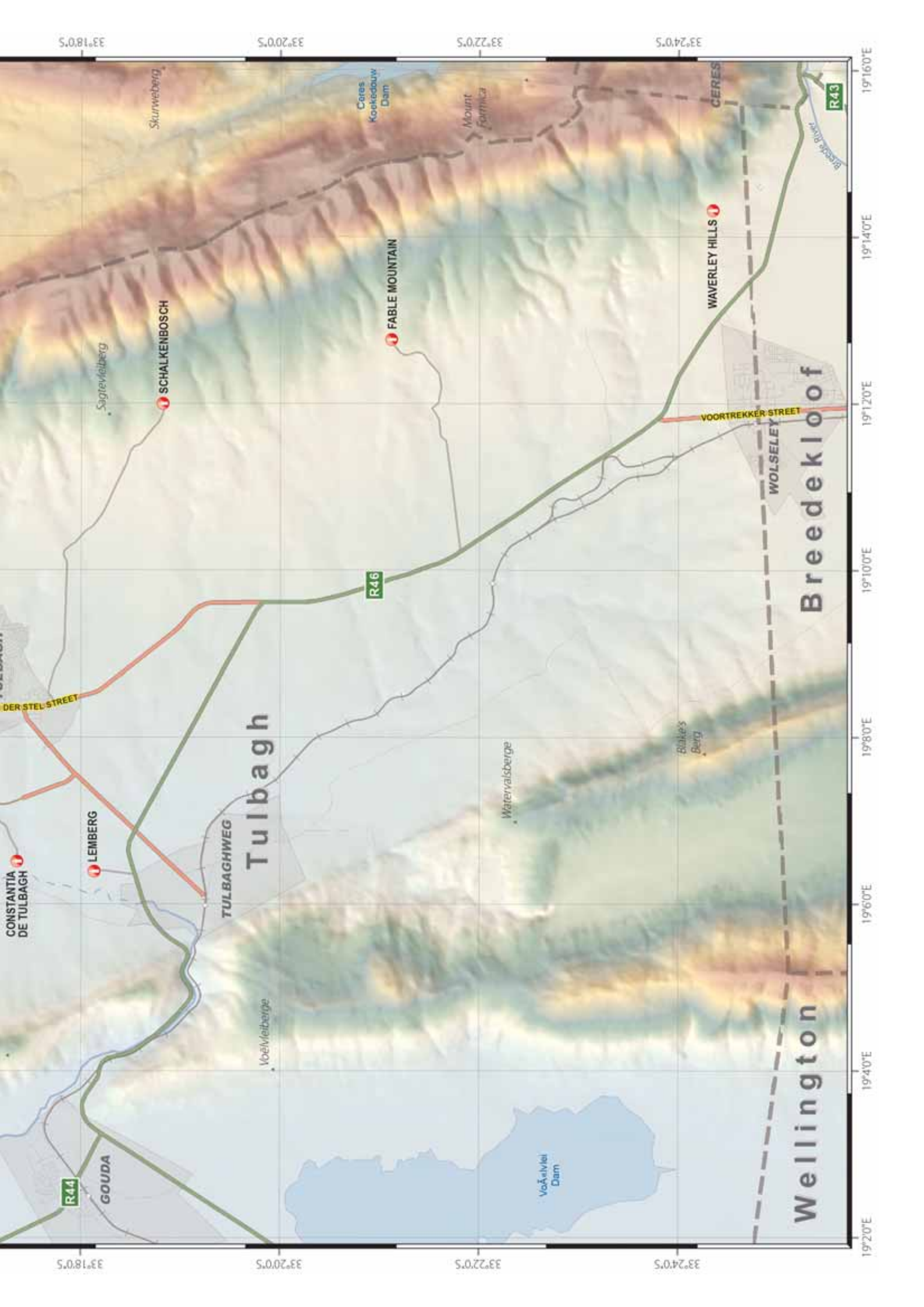
MANLEY

MONTPELLIER

WAVERN STREET

VAN DER BURG

Klein Berg River



33°18'05"

33°20'05"

33°22'05"

33°24'05"

19°16'00"E

19°14'00"E

19°12'00"E

19°10'00"E

19°08'00"E

19°06'00"E

19°04'00"E

19°02'00"E

Skurweberg

Ceres Koekedouw Dam

Mount Formica

CERES

R43

Breede Kloof

WAVERLEY HILLS

VOORTREKKER STREET

WOLSELEY

SCHALKENBOSCH

Sagtevelberg

FABLE MOUNTAIN

R46

DER STEL STREET

LEMBERG

Tulbagh

TULBAGHWEG

Watervalsberge

Balle's Berg

CONSTANTIA DE TULBAGH

R44

GOUDA

Voelvlei Dam

Wellington

33°18'05"

33°20'05"

33°22'05"

33°24'05"

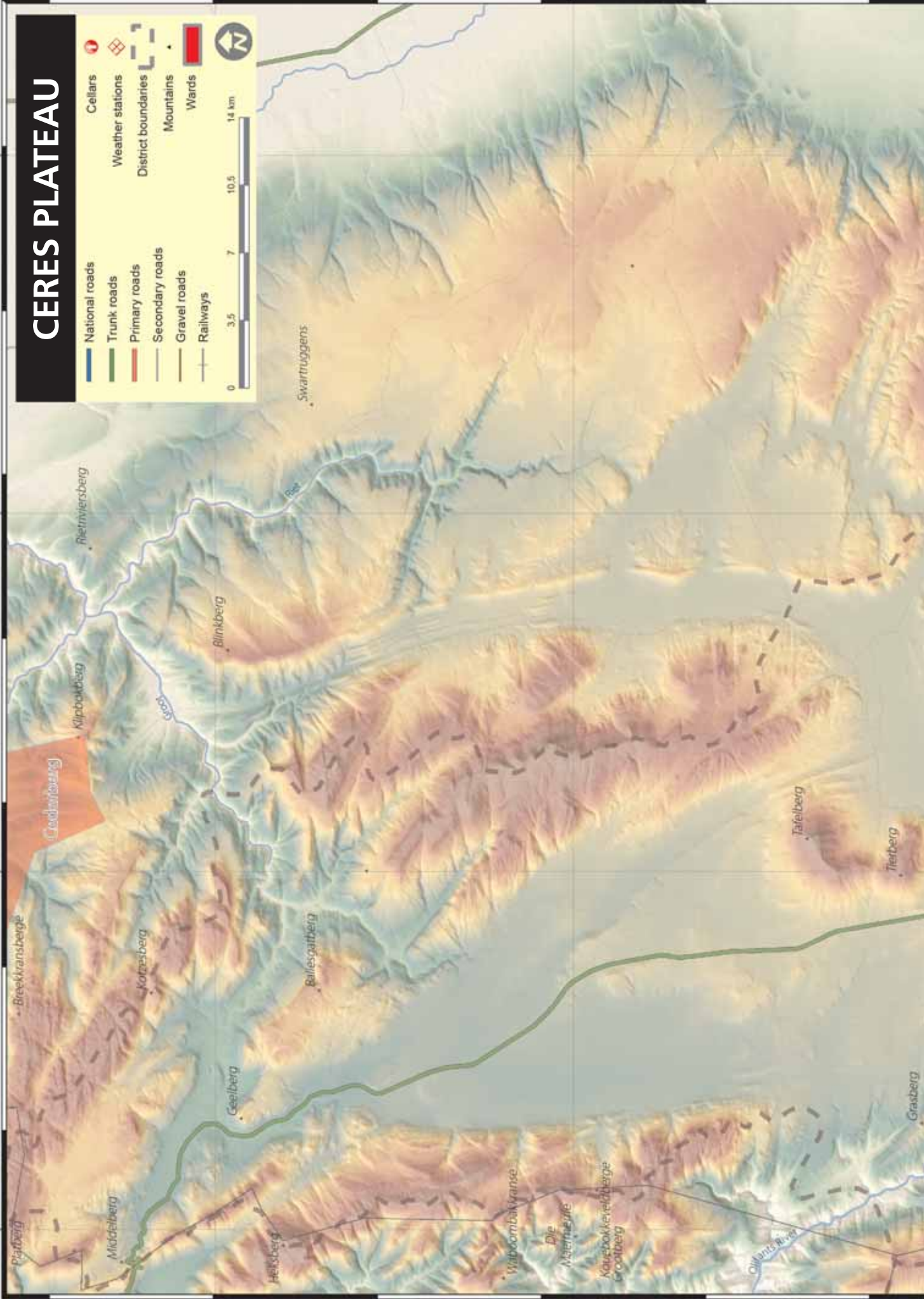
19°10'0"E 19°20'0"E 19°30'0"E 19°40'0"E

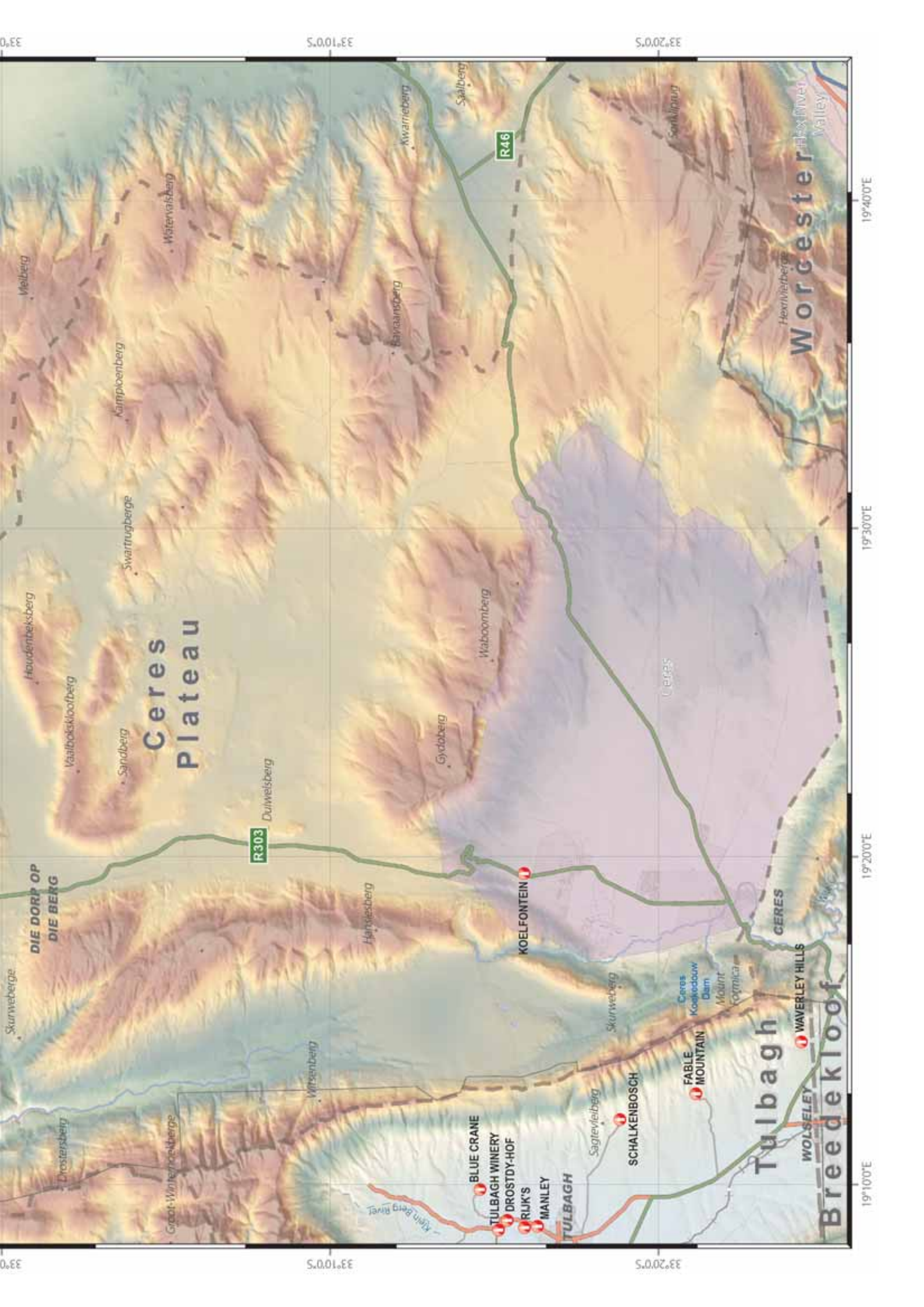
32°40'0"S 32°50'0"S 32°50'0"S 32°40'0"S

CERES PLATEAU

 National roads	 Cellars
 Trunk roads	 Weather stations
 Primary roads	 District boundaries
 Secondary roads	 Mountains
 Gravel roads	 Wards
 Railways	

0 3.5 7 10.5 14 km





Ceres Plateau

Worcester

Tulbagh

DIE DORP OP DIE BERG

- BLUE CRANE
- TULBAGH WINERY
- DROSTDY-HOF
- RIJK'S
- MANLEY
- TULBAGH

SCHALKENBOSCH

FABLE MOUNTAIN

WOLSELEY

WAVERLEY HILLS

CERES

KOELFONTEIN

R303

R46

19°40'0"E

19°30'0"E

19°20'0"E

19°10'0"E

33°00'0"S

33°10'0"S

33°20'0"S

33°00'0"S

33°10'0"S

33°20'0"S

BREEDER RIVER VALLEY

& beyond

Region: Breede River Valley

District: Breedekloof

Wards: Goudini, Slanghoek

At the Breedekloof district's hub is the village of Rawsonville, which is surrounded by vineyards with 24 wineries in a 30 km radius. Many of the farms are family owned and the area is known for its warm, hospitable people.

Breedekloof is home to the first conservancy in the Western Cape winelands, and has partnered with organisations such as WWF, CapeNature and LandCare. Part of the Cape Floral Kingdom, there are 160 endemic plant species in the valley and the mountains still teem with wildlife, including the Cape leopard and endangered geometric tortoise. The mountains, rivers and valleys create a natural playground, attracting hikers, birders, mountain bikers and fishermen.

The Breedekloof district covers the upper reaches of the Breede River and its tributaries, resulting in the purest possible source of water. There are marked variations between the soils and mesoclimates in the different river valleys.

The wards of **Goudini** and **Slanghoek** lie within the rain belt caused by the first range of north-south lying mountains next to the south-western coast, where the rain is still sufficient enough for vineyards to flourish without irrigation. The average annual rainfall is 784 mm. Summers are warm and the mean February temperature is 21.6°C. Snow-capped mountains during winter and into spring result in a later bud break, longer hanging time and later harvest than the continental climate would otherwise suggest. In summer, the prevailing southeasterly wind is funneled through the valley, cooling the vines in the late afternoon, reducing disease pressure and limiting the use of spraying.



RAWSONVILLE

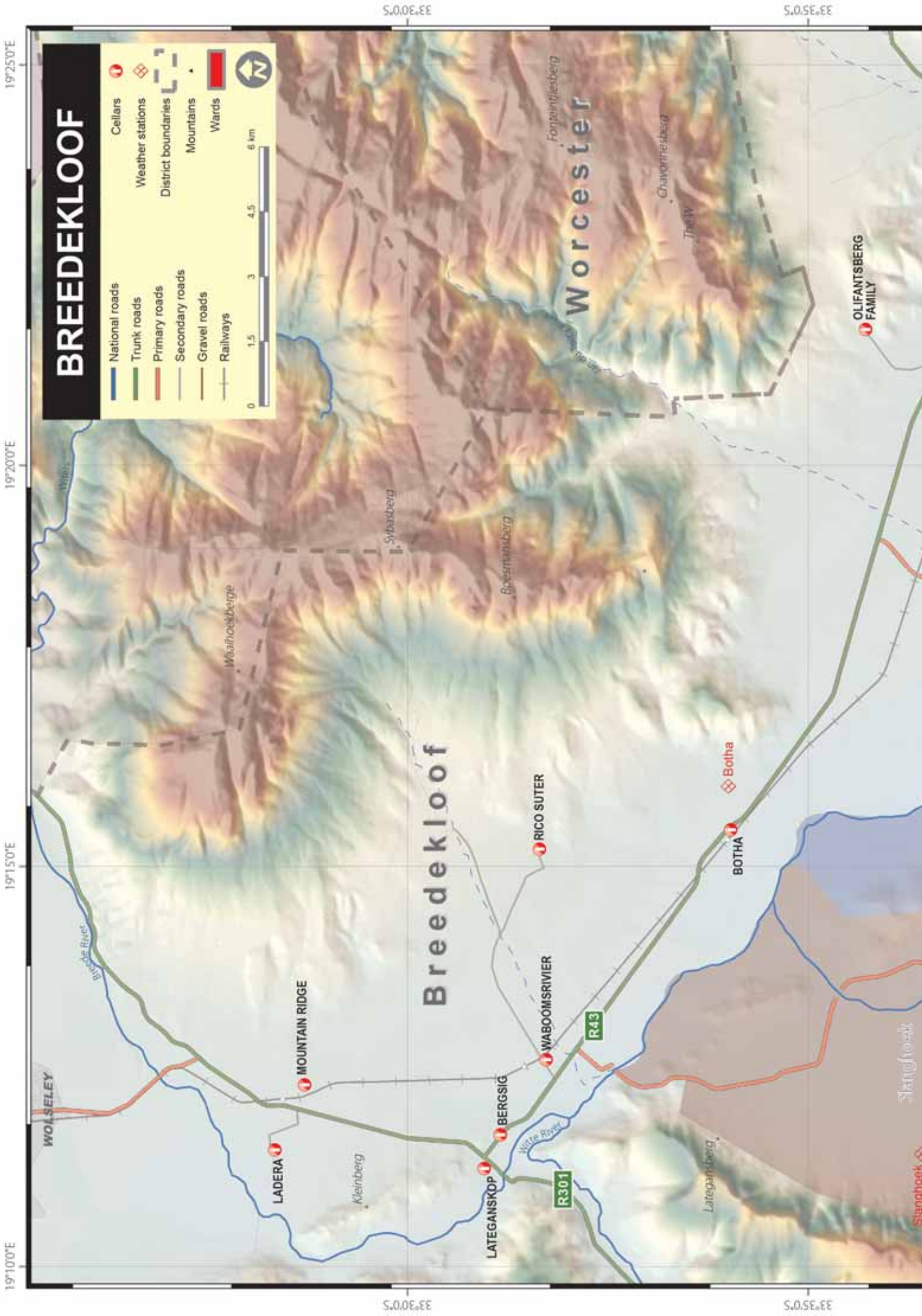
Weather Station	Du Toitskloof Cellar
Altitude	261 m
Dominant Influence	Flat river valley terraces
Heat Summation	2 076°C days (IV)
MFT	22.9°C
Continentality	11.3°C
Total Rain	641 mm
Summer Rain	196 mm
Seasonal Evaporation	1 104 mm
Aridity Index	246 mm
Geology	Sandstone-derived boulderbeds and sandy alluvium
Dominant Soils	Boulderbeds and dark to light coloured Dundee, dark coloured Oakleaf

The Breededkloof is characterised mainly by vineyards which flourish on a flat landscape of alluvial valley soils with adequate drainage as they rest on a bed of river stones. In Goudini and Slanghoek, these soils and boulder beds of mainly alluvial material range from bleached sand to dark, organic rich sand, especially in the vicinity of the Goudini ward. These massive alluvial deposits alternate with mostly Bokkeveld shales in many combinations. Although vineyards were originally only planted alongside the rivers, today they are being planted in an increasingly diverse range of landscapes, on a wider variety of soils.

The most widely planted white-wine varieties are Chenin Blanc, Colombard and Chardonnay, and

the main red-wine varieties are Pinotage, Shiraz and Cabernet Sauvignon. The Breedekloof valley continues to invest in new plantings. Diversity of soils, matched by diversity of climate and topography, allows the Breedekloof to deliver wines across a wide spectrum of styles.





BREEDEKLOOF

National roads	Cells
Trunk roads	Weather stations
Primary roads	District boundaries
Secondary roads	Mountains
Gravel roads	Wards
Railways	

0 1.5 3 4.5 6 km

Breedeekloof

Worcester

WOLSELEY

LADERA

MOUNTAIN RIDGE

Kleinberg

LATEGANSKOP

BERGSIG

WABOOMSRIVIER

RICO SUTER

Lategansrivier

BOTHA

Botha

OLIFANTSBERG FAMILY

Shanghoek

Shanghoek

S,0,0E

S,0,5E

19°25'0"E

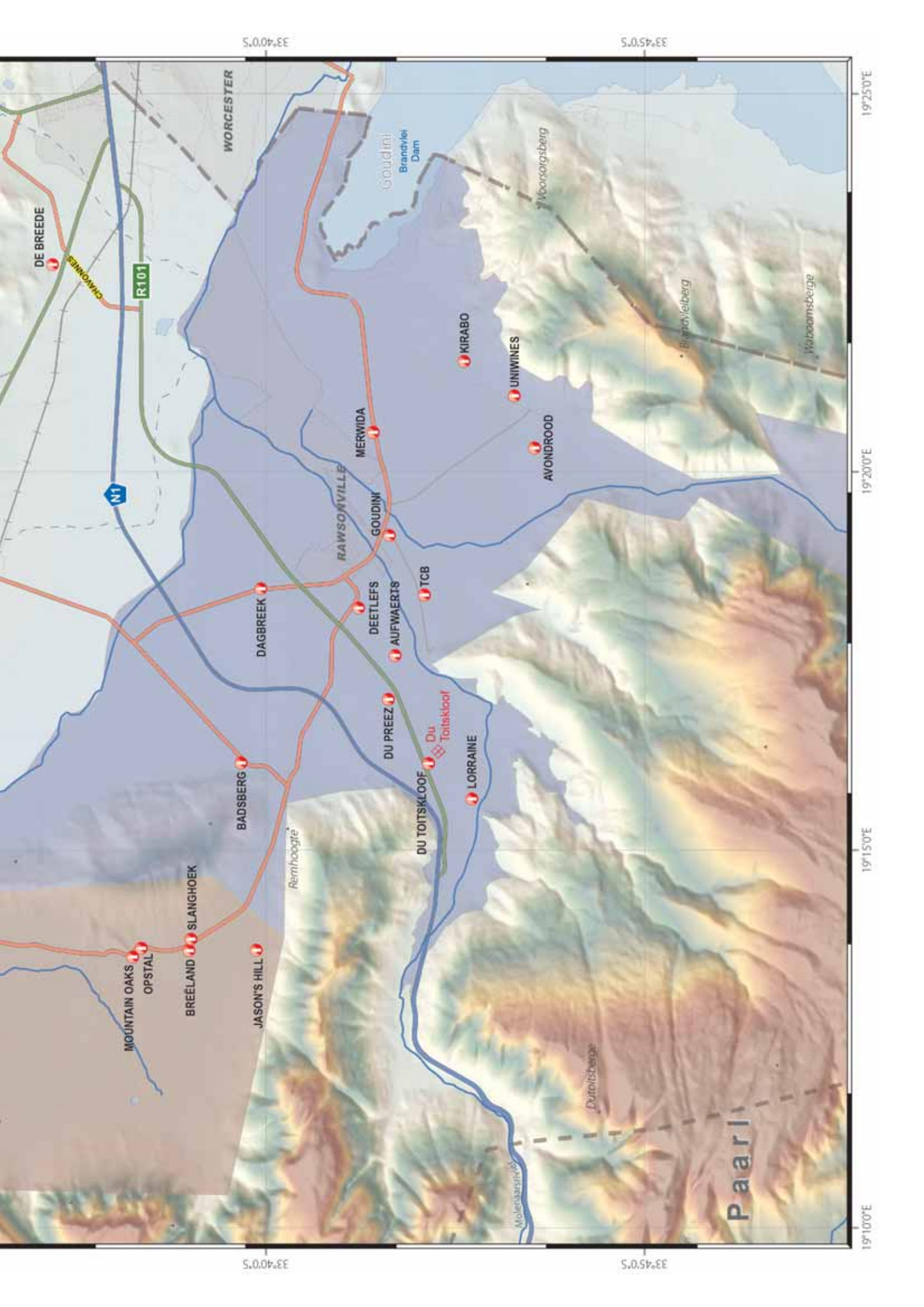
19°20'0"E

19°15'0"E

19°10'0"E

S,0,0E

S,0,5E



Region: Breede River Valley
District: Worcester
Wards: Hex River Valley, Nuy, Scherpenheuvel, Stettyn

The historical town of Worcester, established in 1820, is the hub of this district, which comprises several wards. For outdoor enthusiasts there are several exciting activities on offer, from 4x4 routes and game watching to fishing, canoeing, river boating, hiking and mountain biking.

Between Worcester and Robertson in the Breede River Valley the climate is Mediterranean and the rainfall is low. In winter, nights are cold and there is often snow on the peaks of the mountains. The Worcester fault, a major geological fault, is the most significant feature defining the geology of the area. Soils are predominantly alluvium, loam and sandy loam. In Worcester, more vineyards are currently being planted than pulled out. The most widely planted white-wine variety

is Chenin Blanc. Shiraz is the dominant red-wine variety, followed by Cabernet Sauvignon and Pinotage. There are 11 wine cellars on the Worcester Wine & Olive Route, several of which are bottling quality wines under their own labels. The district is known for its good value-for-money red and white wines, and has also built a reputation for its fortified wines. Worcester is also the most important brandy-producing area in the winelands.



NUY

Weather Station	Nuy
Altitude	328 m
Dominant Influence	Open river valley
Heat Summation	1 980°C days (IV)
MFT	22.2°C
Continentality	10.4°C
Total Rain	201 mm
Summer Rain	87 mm
Seasonal Evaporation	1 330 mm
Aridity Index	445 mm
Geology	Quaternary alluvium and Bokkeveld shale
Dominant Soils	Fertile Dundees, calcareous Etosha and Gamoep, red-brown Oakleaf, stony Glenrosa



19°40'0"E

19°30'0"E

19°20'0"E













33°20'0"S

33°30'0"E

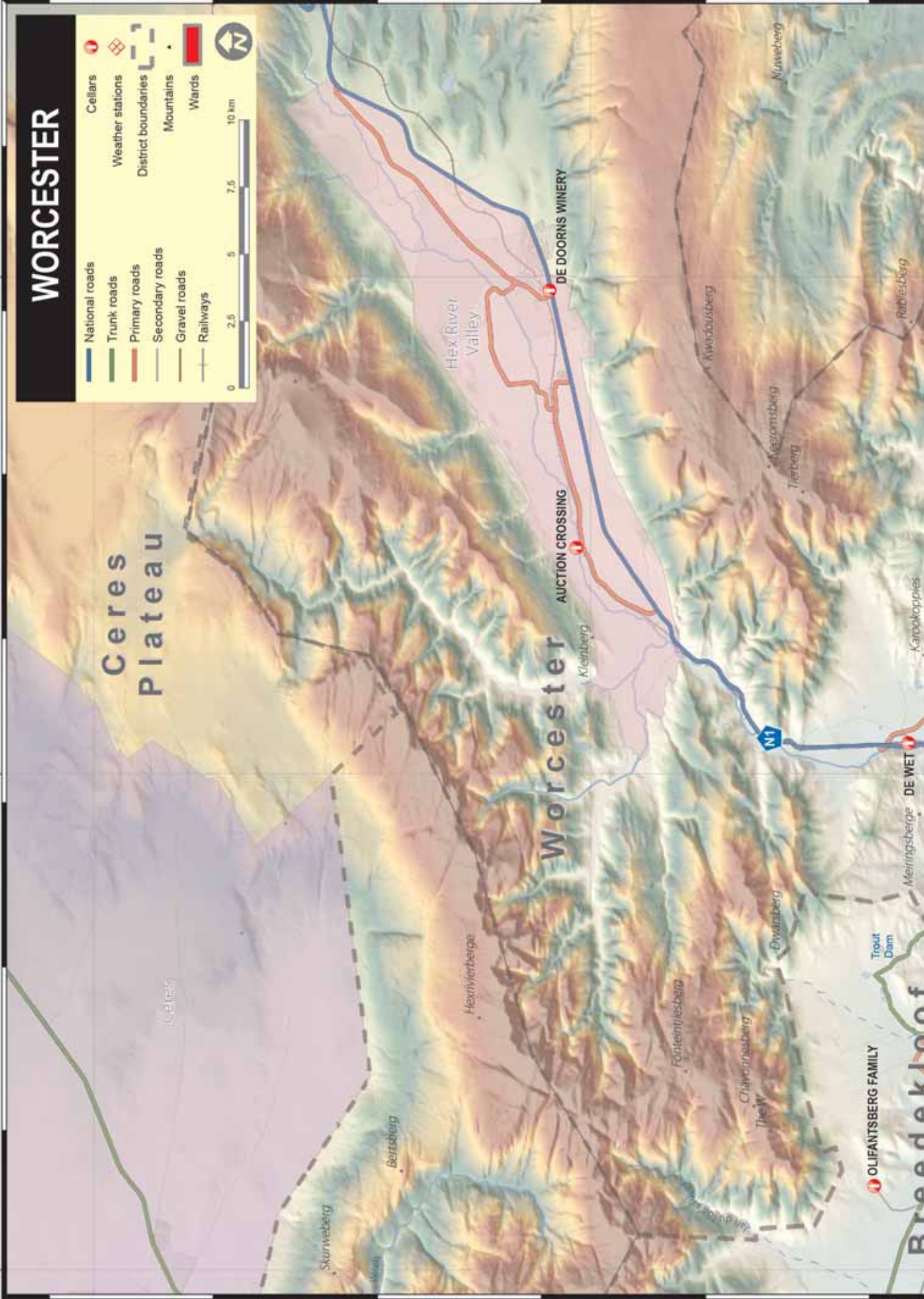
33°20'0"S

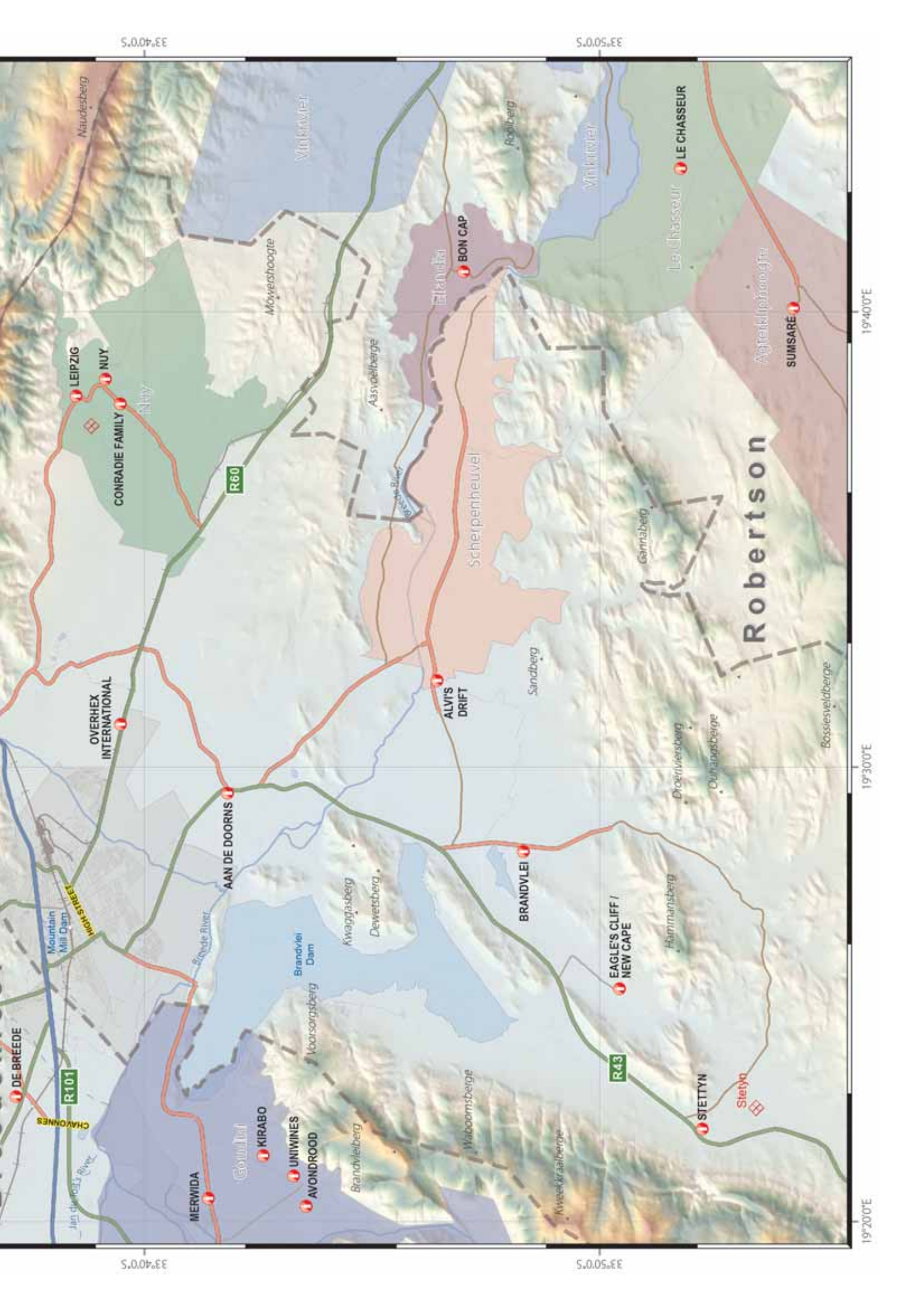
33°30'0"E

WORCESTER

 National roads	 Cellars
 Trunk roads	 Weather stations
 Primary roads	 District boundaries
 Secondary roads	 Mountains
 Gravel roads	 Wards
 Railways	

0 2.5 5 7.5 10 km





S.00P.EE

S.00S.EE

19°40'E

19°30'E

19°20'E

S.040'S

S.05S.EE

Robertson

LEIPZIG

NUY

CONRADIE FAMILY

R60

BON CAP

LE CHASSEUR

SUMSARE

OVERHEX INTERNATIONAL

AAN DE DOORNS

ALVI'S DRIFT

BRANDVLEI

EAGLE'S CLIFF / NEW CAPE

R43

STETTYN

DE BREEDE

R101

KIRABO

UNIWINES

AVONDROOD

MERWIDA

Naudesberg

Middelberg

Robberg

Middelberg

Moyershoogte

Aasvaelberge

Agterkliphoogte

Assebluier

Scherpenheuvel

Gannaberg

Sandberg

Droeniersberg

Ouhansberge

Bossiesveldberge

Kwaggasberg

Dewetsberg

Brandvlei Dam

Voorsorgsberg

Brandvlei

Brandvlei

Walboomsberge

Kweekkraalberge

Hammanberg

Stietja

S.040'S

S.05S.EE

Region: Breede River Valley

District: Robertson

Wards: Agterkliphoogte, Bonnievale, Boesmansrivier, Eilandia, Hoopsrivier, Klaasvoogds, Le Chasseur, Mc Gregor, Vinkrivier

Dubbed the 'valley of vines and roses' and historically known for the breeding of champion racehorses, the Robertson district's lime-rich soils make it eminently suitable for winegrowing. Many of the farms have been owned by the same family for generations. The Robertson district runs along the Breede River between the Langeberg and Riviersonderend mountain ranges. The valley offers many attractions and exciting outdoor activities, from river cruises to rafting, hiking and mountain biking.

The broad river with its early morning mists is the lifeblood of this lower rainfall district. It has an annual average rainfall of around 280–400 mm. The valley is characterised by extreme differences in day and night temperatures. Although summer temperatures can be high, cooling southeasterly winds channel moisture-laden air into the valley. The mean February temperature is 23°C.

The district of Robertson incorporates several wards. These reflect the variety of unique environments, a result of the soil diversity in the valley. This winegrowing area features three main soil types: dark-coloured, light-textured, humid alluvial soils on the lower riverine terraces which induce vigorous growth; reddish-brown, heavy-textured soils, often calcareous, on older, higher terraces which, depending on the salt content and structure, also promote vigorous growth of vines; and relatively

shallow soils on Bokkeveld shale which induce moderate vigour and yields if properly prepared.

Robertson has the third most vineyard plantings in South Africa. Plantings of Colombard account for the most hectareage of white-wine varieties, followed by Chardonnay, Chenin Blanc and Sauvignon Blanc. The most widely planted red-wine varieties are Cabernet Sauvignon, Shiraz and Pinotage. Robertson is renowned for the quality of its wines. Traditionally considered white-wine territory and known mainly for its Chardonnay and more recently for the quality of its Sauvignon blanc, Robertson it is also increasingly being recognised for its fine red wines, particularly Cabernet Sauvignon and Shiraz. The district also produces stand-out Méthode Cap Classiques, as well as the distinctive fortified dessert wines for which it was originally famed.



ROBERTSON

Weather Station	Robertson
Altitude	156 m
Dominant Influence	Open valley, undulating hills, soils
Heat Summation	2 181°C days (IV)
MFT	23°C
Continentality	11°C
Total Rain	280 mm
Summer Rain	116 mm
Seasonal Evaporation	1 405 mm
Aridity Index	446 mm
Geology	Bokkeveld shale, Tertiary/Quaternary alluvial deposits
Dominant Soils	Alluvial fertile Dundee, red-brown calcareous Gamoep and Etosha, structured Swartland, stony Glenrosa

BONNIEVALE

Weather Station	Merwespont
Altitude	110 m
Dominant Influence	Open valley, undulating hills, soils
Heat Summation	1 968°C days (IV)
MFT	21.8°C
Continentality	10.1°C
Total Rain	327 mm
Summer Rain	155 mm
Seasonal Evaporation	1 121 mm
Aridity Index	293 mm
Geology	Bokkeveld shale and Tertiary/Quaternary alluvial deposits
Dominant Soils	Alluvial Dundee, red-brown calcareous Gamoep and Etosha, structured Swartland, stony Glenrosa



19°40'0"E

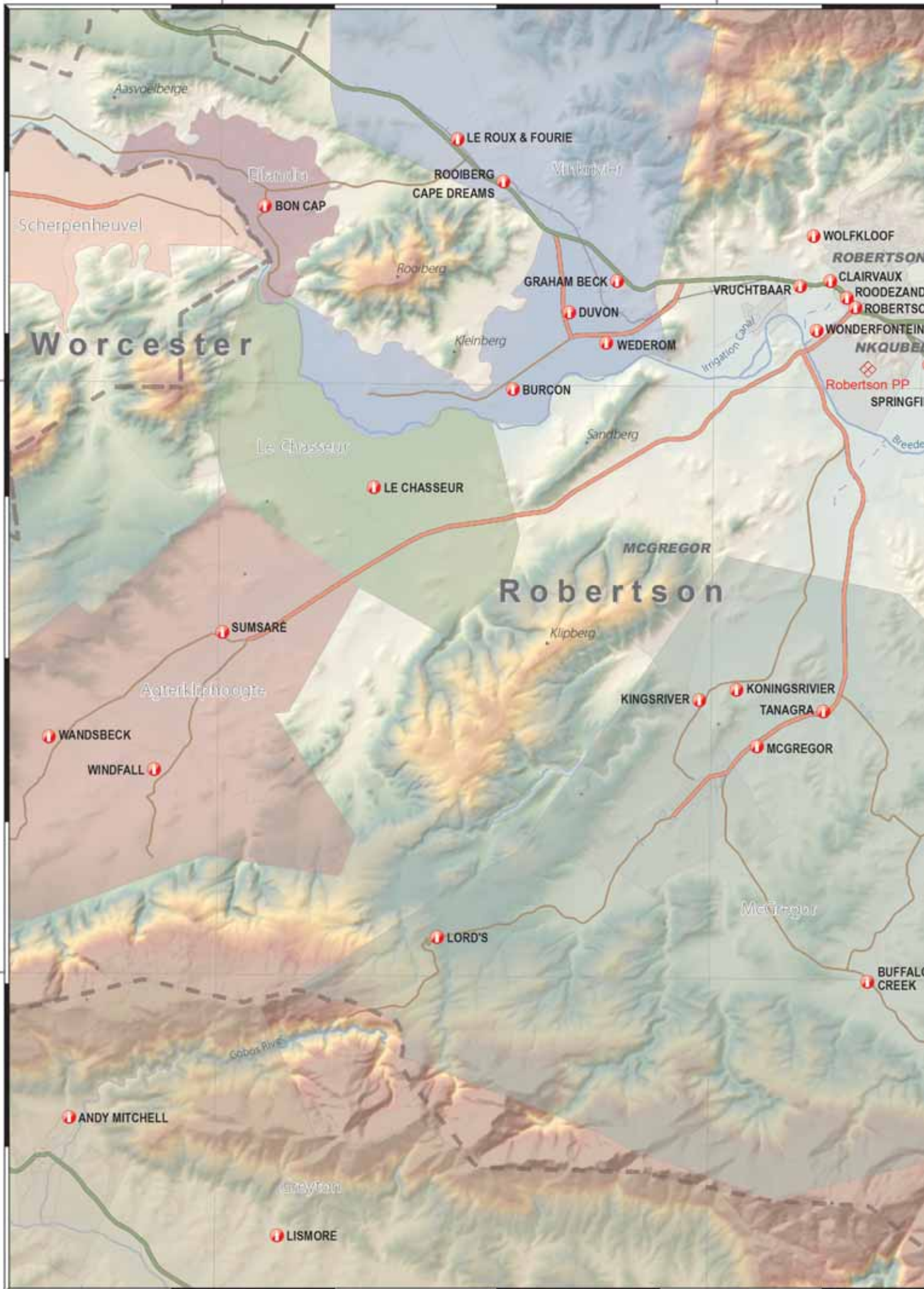
19°50'0"E

33°50'0"S

34°0'0"S

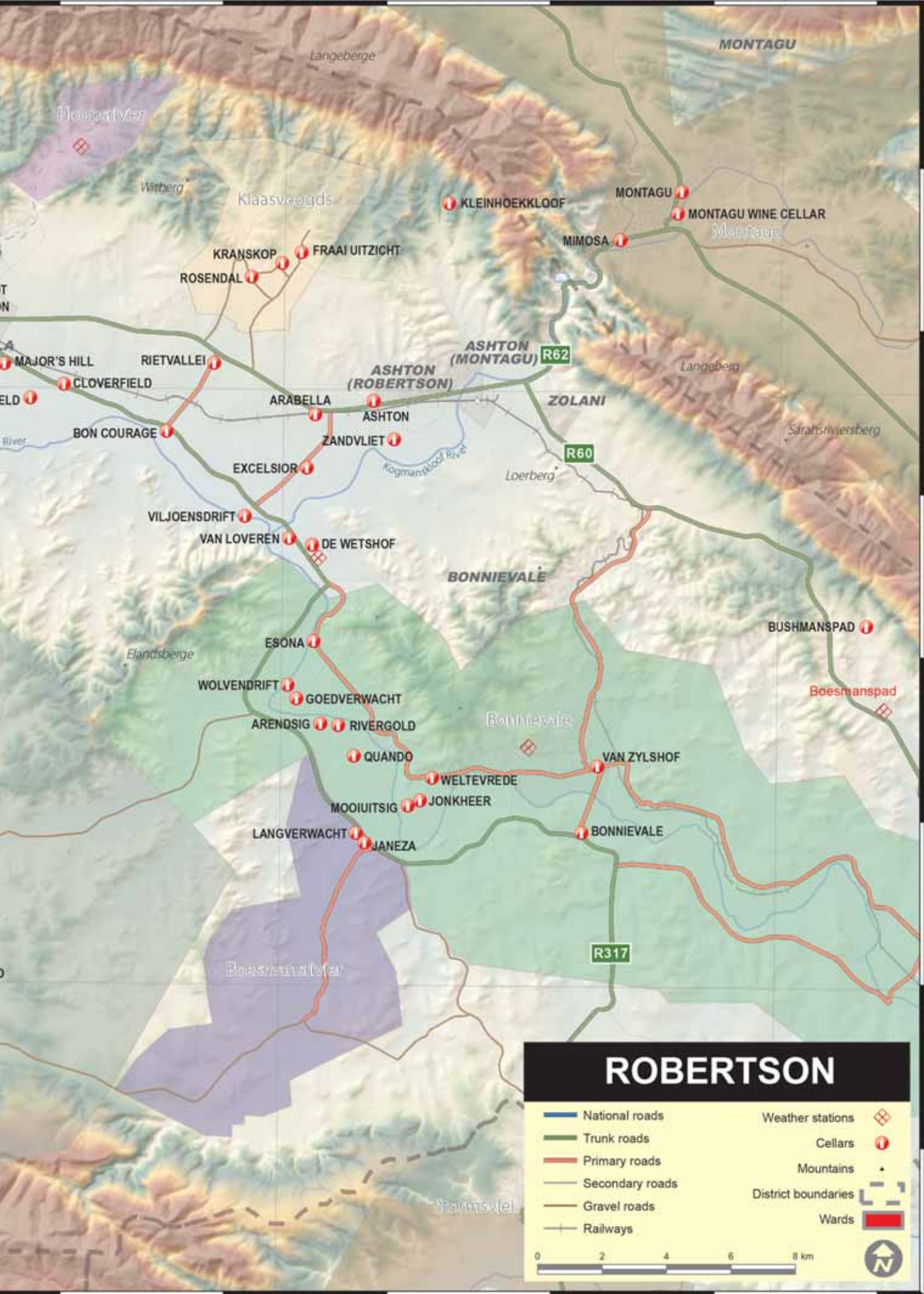
19°40'0"E

19°50'0"E



20°0'0"E

20°10'0"E



33°50'0"S

34°0'0"S

20°0'0"E

20°10'0"E

ROBERTSON

- National roads
- Trunk roads
- Primary roads
- Secondary roads
- Gravel roads
- Railways
- Weather stations
- Cellars
- Mountains
- District boundaries
- Wards

0 2 4 6 8 km



KLEIN KAROO

A vast landscape

Region:	Klein Karoo
District:	Calitzdorp, Langeberg-Garcia
Wards (no district):	Cango Valley, Montagu, Outeniqua, Tradouw, Tradouw Highlands, Upper Langkloof (see page 19)
Wards (no region/district):	Prince Albert Valley, Swartberg (see page 19)

The semi-arid, elongated Klein Karoo region stretches from Montagu, via higher-lying, cooler Barrydale towards Calitzdorp, Oudtshoorn and the Langkloof. This area is known for relative extremes when it comes to soil and climate.

The most recently proclaimed district in the region is **Langeberg-Garcia** – situated north of the Langeberg mountain range between the Brand River in the west and the Gourits River in the east, it encompasses the scenic Garcia Pass. The southern Karoo region is a unique and exceptionally diverse part of the Succulent Karoo Biome, encompassing diverging landscapes, climate, soils, geology, flora and fauna. The vast, untamed wilderness of the Klein Karoo forms an integral part of this region. The different conservation areas form natural corridors between several biomes such as fynbos, succulent and renosterveld. In many places the biomes come together and intertwine as mosaics throughout the region.

The area is marked by a general shortage of water due to the low and unreliable rainfall which averages only 200 mm per year. The drier climate results in healthy vineyards which are grown organically to a large extent. Viticulture takes place as plantings in finger-like kloofs, valleys and

riverine sites in a rugged mountainous landscape. Traditionally plantings took place in valleys on alluvial soils derived from sandstone and/or shale, whereas newer plantings take place on higher lying, cooler positions on skeletal, stony soils, mainly derived from shale. Muscat varieties flourish here and the area is therefore known for its sweet wines. More recent plantings of Sauvignon Blanc and Pinot Noir reflect the diversity of the region. Calitzdorp is famous for its port-style wines and here you'll find plantings of Tinta Barocca, Touriga Nacional and, on a small scale, Souzao. Dry red wines made from these varieties are creating interest. Today, there is an increasing focus on reds such as Merlot made in an easy-drinking style too. Shiraz, made in a more serious and innovative style, is of importance too. The region is also known for its award-winning potstill brandies.

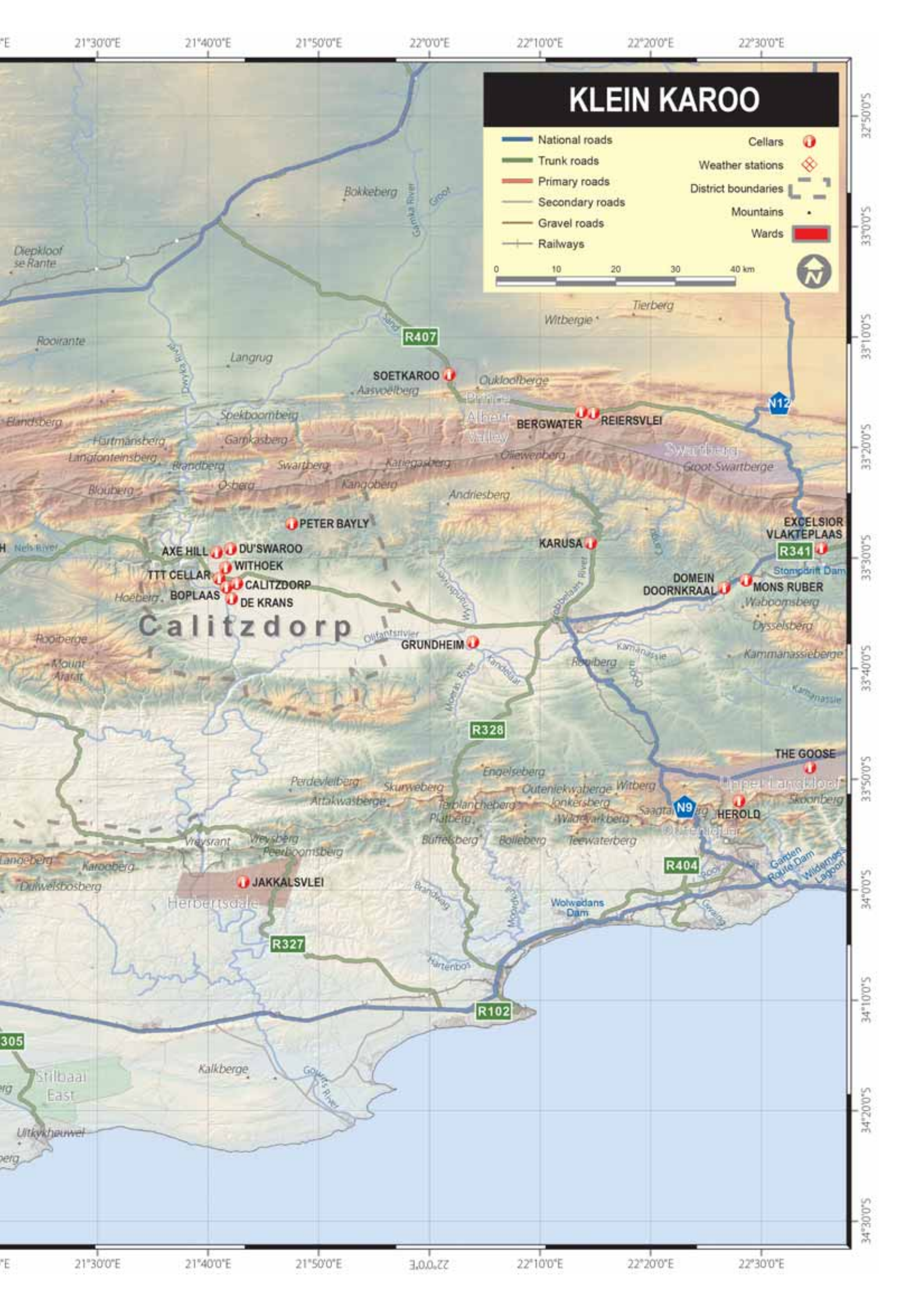
Bordering the Klein Karoo region is the Groot Karoo, which encompasses the stand-alone **Prince Albert Valley** and **Swartberg** wards (see page 19).

KLEIN KAROO

Weather Station	Montagu Polisie (1979-1992)
Altitude	225 m
Dominant Influence	Aridity, soils, altitude
Heat Summation	2 154°C (IV)
MFT	23.1°C
Continentality	11°C
Total Rain	310 mm
Summer Rain	114 mm
Aridity Index	0.15 mm
Dominant Soils	Alluvial, weathered shale, red-brown calcareous





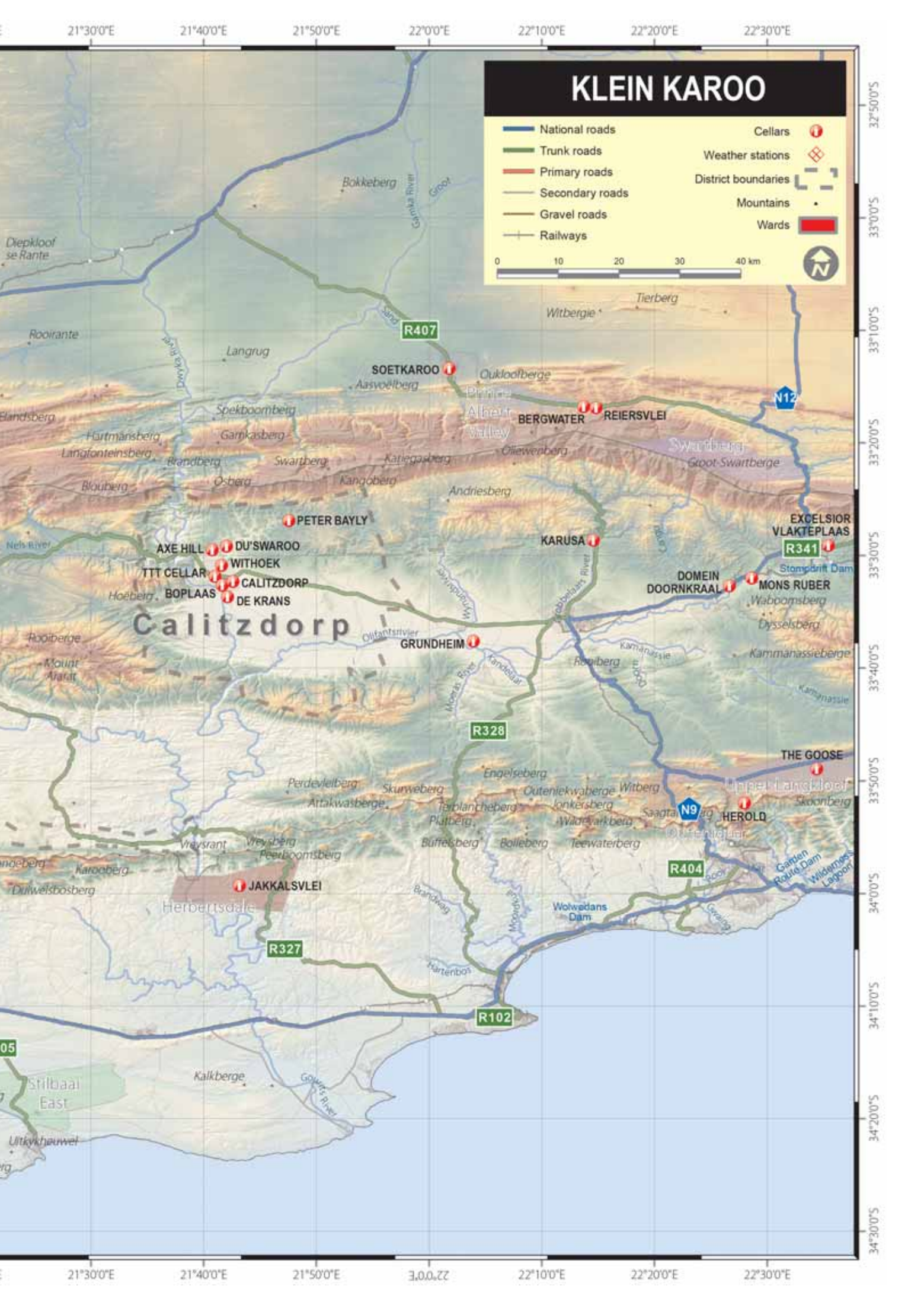


KLEIN KAROO

National roads	Cellars
Trunk roads	Weather stations
Primary roads	District boundaries
Secondary roads	Mountains
Gravel roads	Wards
Railways	

0 10 20 30 40 km

Calitzdorp





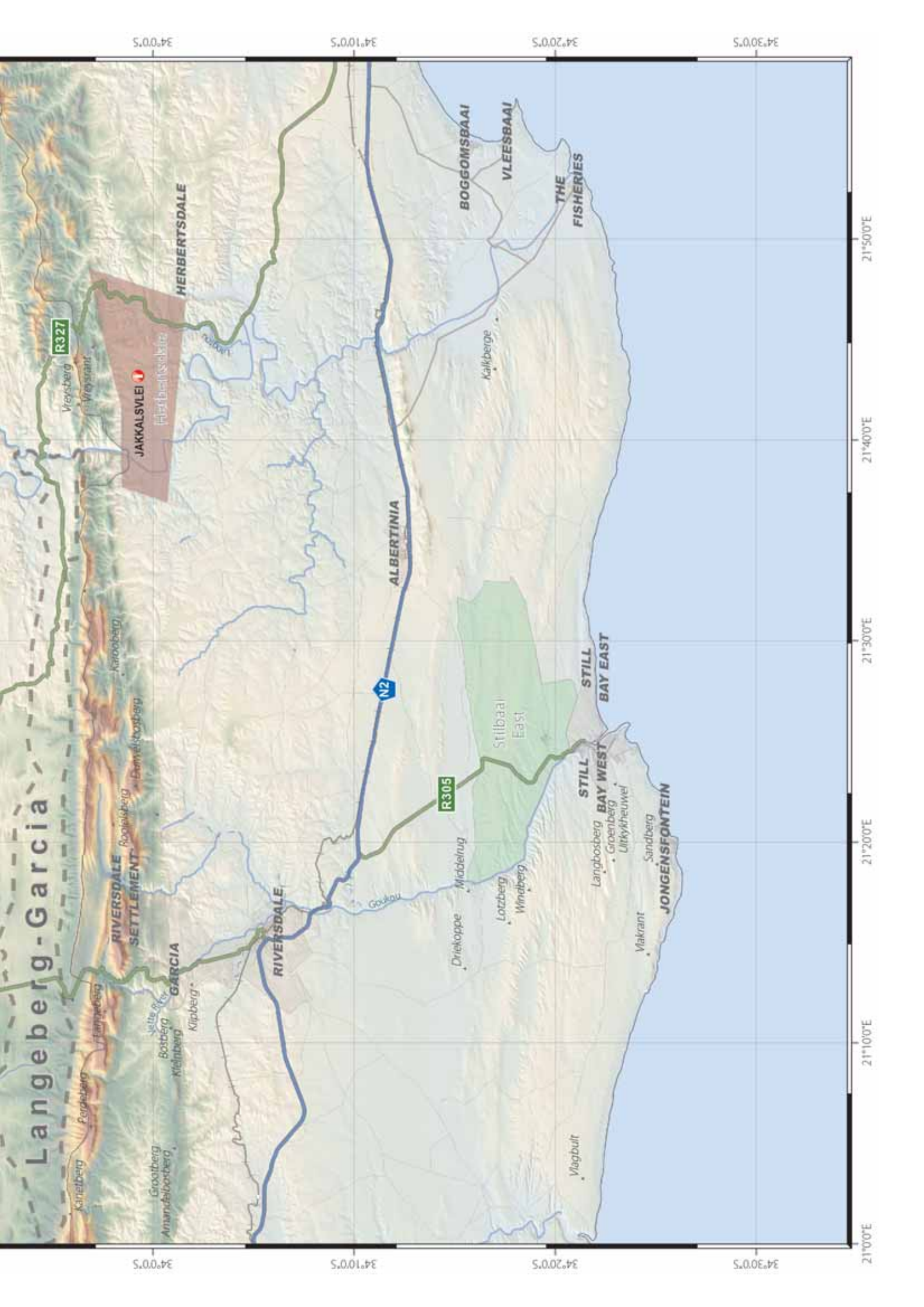
CALITZDORP

- National roads
- Trunk roads
- Primary roads
- Secondary roads
- Gravel roads
- Railways
- Cellars
- Weather stations
- District boundaries
- Mountains
- Wards



Calitzdorp





CAPE SOUTH COAST

New horizons

Region: Cape South Coast

District: Elgin

The main viticultural areas in these cool southerly climes are the districts of **Elgin, Overberg, Walker Bay and Cape Agulhas**, which encompass exciting newer wards such as **Elim, Klein River and Malgas**. The high-lying cool-climate **Elgin** district lies cradled in an inland plateau, situated at an altitude of 200–1 000 m and surrounded by the ancient sandstone Hottentots Holland mountains, where medium-structured, often ferruginous soils developed from Devonian Bokkeveld shale parent material.

Elgin is approximately 70 km southeast of Cape Town and the southern part of the valley is only 4.5 km from the ocean. The valley was traditionally an apple-growing area. In keeping with an ethos of sustainable wine production, vines grow alongside pristine mountain fynbos in the Kogelberg Biosphere, a UNESCO World Heritage Site and part of the spectacular Cape Floral Kingdom. Elgin is also part of the Green Mountain Eco Route, the world's first biodiversity wine route.

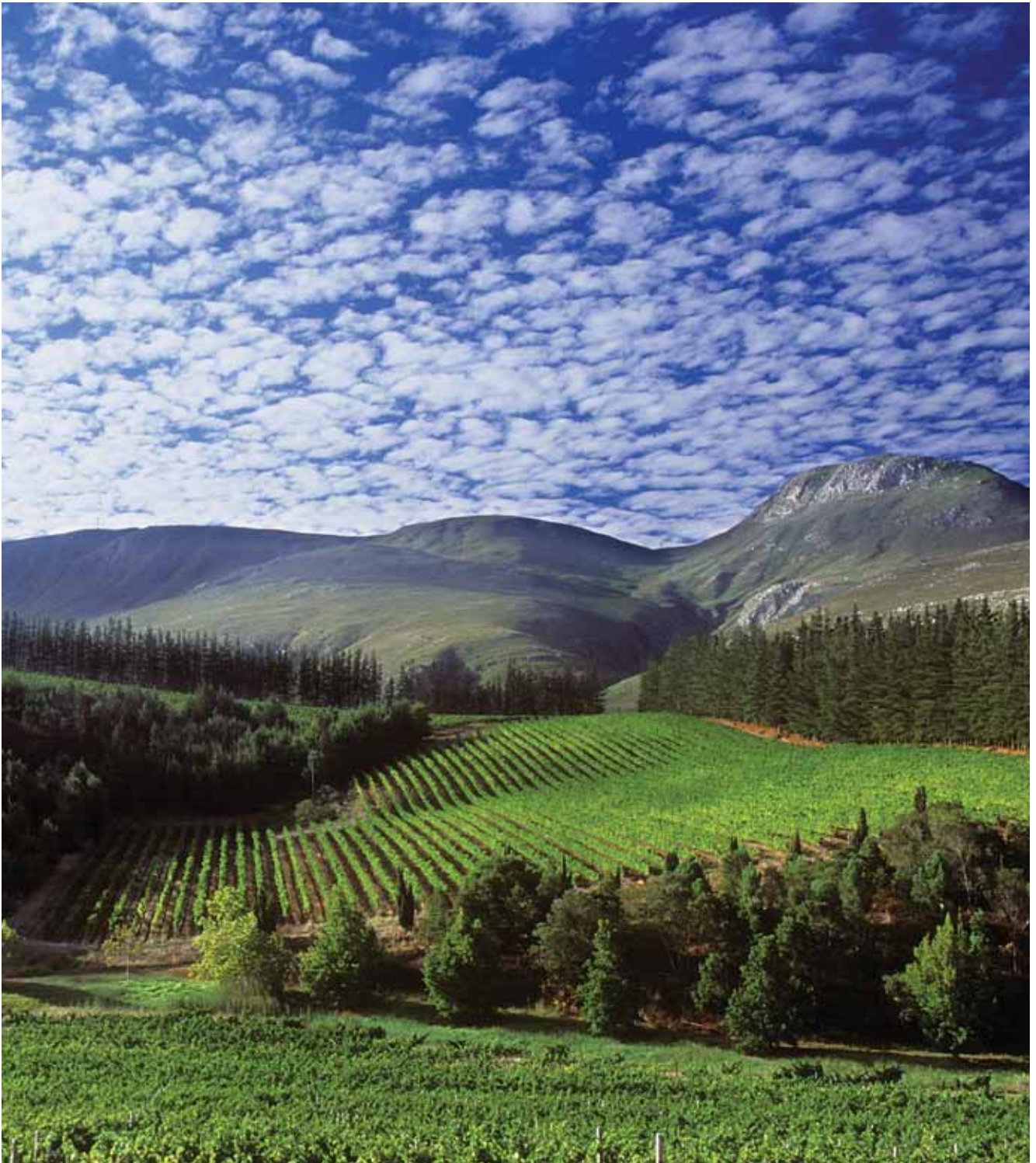
Winters are cold with abundant rain. Average annual rainfall is 1 011 mm. Summers are warm

with cold nights accompanied by southeasterly sea breezes, ideal for the production of premium quality red and white wine. The mean February temperature is 19.7°C. Vineyards benefit from high altitudes, with some lying 400 m and more above sea level. A series of rolling hills set in an undulating countryside present the perfect opportunities for vineyard site selection. Sauvignon Blanc, Chardonnay, Riesling, Pinot Noir, Merlot and Shiraz do particularly well in this late-ripening zone. Longer ripening produces grapes that hold a broad spectrum of flavours which results in wines of character showing exceptional purity and density of fruit, complexity and elegance.



ELGIN/OVERBERG

Weather Station	Elgin
Altitude	305 m
Dominant Influence	Ocean proximity, mountain basin, soil, altitude
Heat Summation	1 502°C days (II)
MFT	19.7°C
Continentality	8.9°C
Total Rain	1 011 mm
Summer Rain	366 mm
Seasonal Evaporation	1 103 mm
Aridity Index	75 mm
Geology	Bokkeveld shale and sandstone
Dominant Soils	Ferruginous gravel Tukulu and Pinedene, structured Klapmuts



ELGIN

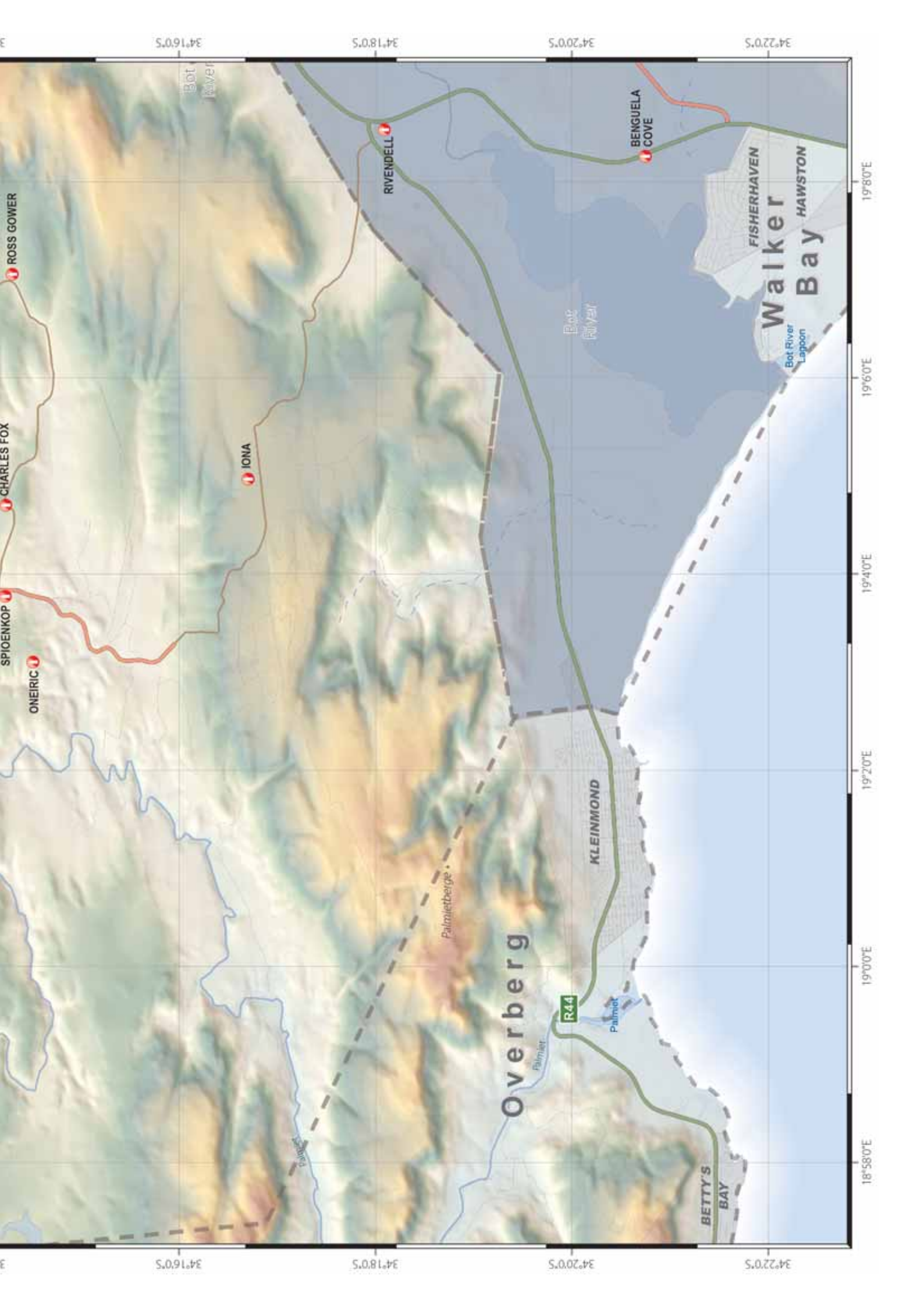
Legend

- National roads
- Trunk roads
- Primary roads
- Secondary roads
- Gravel roads
- Railways
- Weather stations
- Cellars
- Mountains
- District boundaries
- Wards

Scale: 0 1 2 3 4 km

North arrow





Region:	Cape South Coast
District:	Walker Bay
Wards:	Bot River, Hemel-en-Aarde Ridge, Hemel-en-Aarde Valley, Stanford Foothills, Sunday's Glen, Upper Hemel-en-Aarde Valley
District:	Overberg
Wards:	Elandskloof, Greyton, Klein River, Theewater
Ward (no district):	Napier (see page 19)

The Walker Bay district, comprising three river valleys and the coastline, surrounds the villages of Bot River, Hermanus and Stanford.

The **Bot River** ward, with its vast landscape of rolling wheat lands, vineyards and mountains, is the gateway to Walker Bay. The Bot River was known by the San people as the 'Gouga' (meaning 'abundance of fat'). The same word was used for butter, a commodity produced in abundance by the Khoi-San who lived on the banks of the river where pastures were good. Merchants who travelled from the Cape to trade a variety of wares for full casks of butter named the river Botter (meaning butter) as early as 1672. The ward encompasses the Bot River village and valley. It stretches from the Bot River lagoon up into the foothills of the Groenlandberg and Babylonstoren mountain ranges. The wineries are centred within a 10 km radius around the village. This rustic wine route with its boutique wineries offers real country hospitality and handcrafted wines. The ward borders the Kogelberg Biosphere. It is part of the Green Mountain Eco Route, the world's first biodiversity wine route. The area is renowned for its cool maritime microclimate, which is influenced by its proximity to the nearby lagoon and Walker Bay. Cooling afternoon winds blow up the valley off the ocean. The mean February temperature is 21.2°C and the average annual rainfall is 653 mm (US Climate Grids). Soils are mainly homogenous Bokkeveld shale (predominantly Glenrosa and Klapmuts) and Table Mountain sandstone. Chenin Blanc, Sauvignon Blanc, Pinotage, Shiraz and other Rhône varieties fare particularly well here.

The Hemel-en-Aarde Valley also lies within the highly regarded Walker Bay district, which surrounds the seaside town of Hermanus. Both the Groenlandberg and Kogelberg reserves with their wealth of indigenous flora and fauna lie within this area. Hermanus also boasts some of the best land-based whale watching in the world in season (June to November). The valley encompasses three wards: **Hemel-en-Aarde Valley, Upper Hemel-en-Aarde Valley** and

Hemel-en-Aarde Ridge. Hemel-en-Aarde Valley is the first appellation as you enter the valley, the closest to the Atlantic Ocean and home to the first vineyard planted in the area. Upper Hemel-en-Aarde Valley is the second ward as you proceed up the valley and the largest of the three. Hemel-en-Aarde Ridge is the third and smallest ward, and the furthest from the sea. Ripening generally occurs later than for the other two Hemel-en-Aarde appellations. The cool climate is the sought-after attribute here. Cooling persistent winds from the ocean not only ensure favourable ripening conditions but also curtail excessive vigour, thus adding another dimension recognised as conducive to high quality. The average mean February temperature is 20.3°C and the average annual rainfall is 722 mm. In these parts, the soils are generally extremely variable and derived from sandstone, shale or granite intrusions. The overwhelming majority of the vineyards in this appellation are planted on northeast-, north- and northwest-facing slopes of Bokkeveld shale-derived soil on the southern side of the Onrust River. This soil has an unusually high clay content, which varies from 25% to 55%. The clay contents of these soils approximate the clay contents of those of the Côte d'Or in Burgundy, although they tend to be shallower and far stonier. Recommended varieties are Chardonnay, Chenin Blanc, Sauvignon Blanc, Merlot, Pinotage, Pinot Noir and Shiraz on the coolest landscape positions. The Hemel-en-Aarde Valley is reputed for its benchmark Chardonnay and Pinot Noir wines. Fine examples of Sauvignon Blanc, Merlot and Shiraz are also being produced here. The area is also being noticed for the outstanding and consistent quality of its Pinotage.

A short distance from Hermanus lies the cool-climate ward of **Stanford Foothills** with its varying terroir. A number of wineries surround the charming town and vineyards are set on sandy dunes, rocky mountain slopes and fertile plains.

WALKER BAY

Weather Station	Oude Hemel-en-Aarde
Altitude	243 m
Dominant Influence	Proximity of Walker Bay, southern latitude
Heat Summation	1 660°C days (II)
MFT	20.3°C
Continentality	6.4°C
Total Rain	722 mm
Summer Rain	322 mm
Seasonal Evaporation	n.a.
Aridity Index	n.a.
Geology	Shale, granite and sandstone
Dominant Soils	Sandy Lamotte, structured Klapmuts and Estcourt

KLEIN RIVER

Weather Station	Springfontein, Stanford
Altitude	34 m
Dominant Influence	Proximity to Walker Bay, soil
Heat Summation	1 849°C days (III)
MFT	22.0°C
Continentality	9.1°C
Total Rain	564 mm
Summer Rain	236 mm
Seasonal Evaporation	978 mm
Aridity Index	155 mm
Geology	Tertiary/Quaternary consolidated calcareous dunes
Dominant Soils	Calcareous Coega



19°10'0"E

19°20'0"E

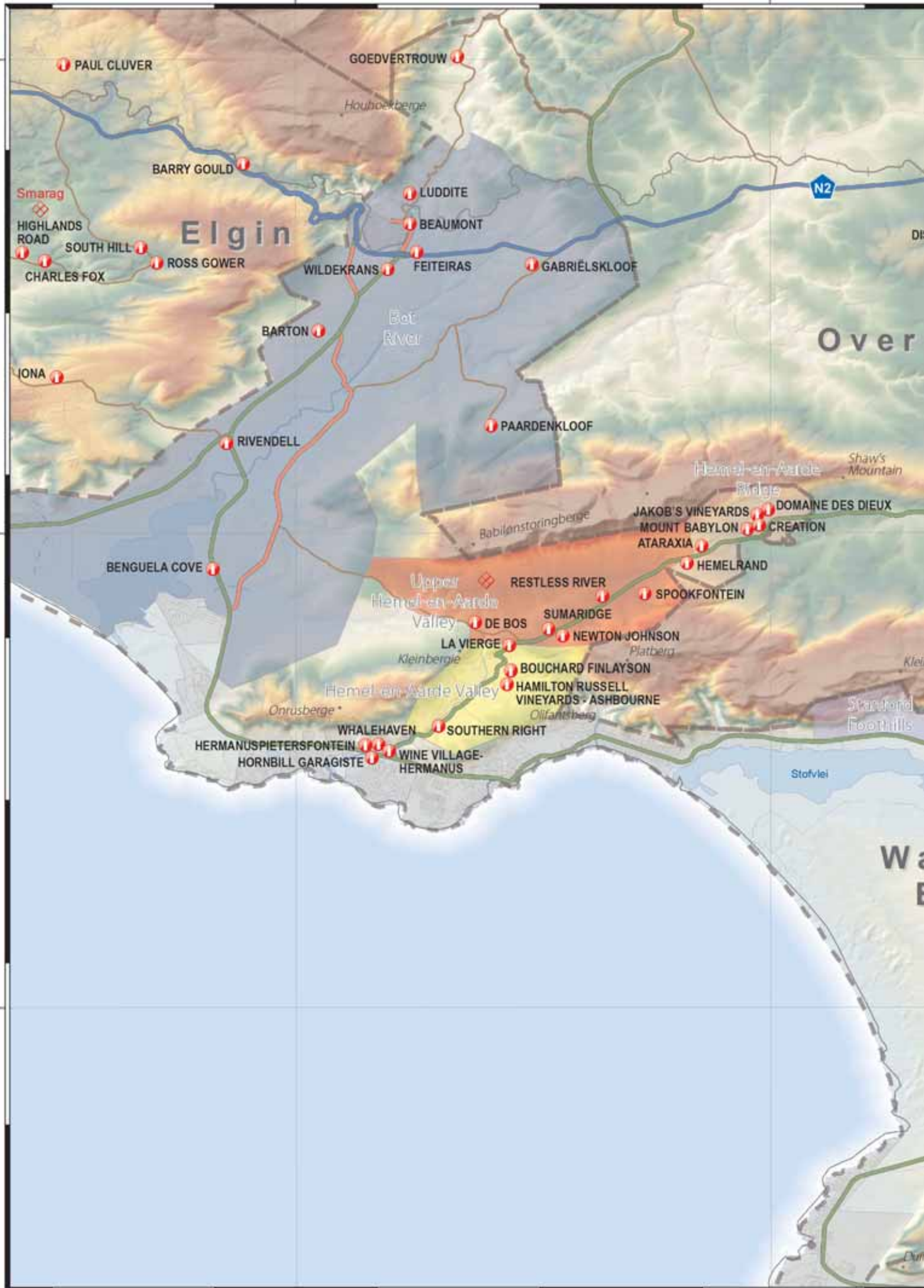
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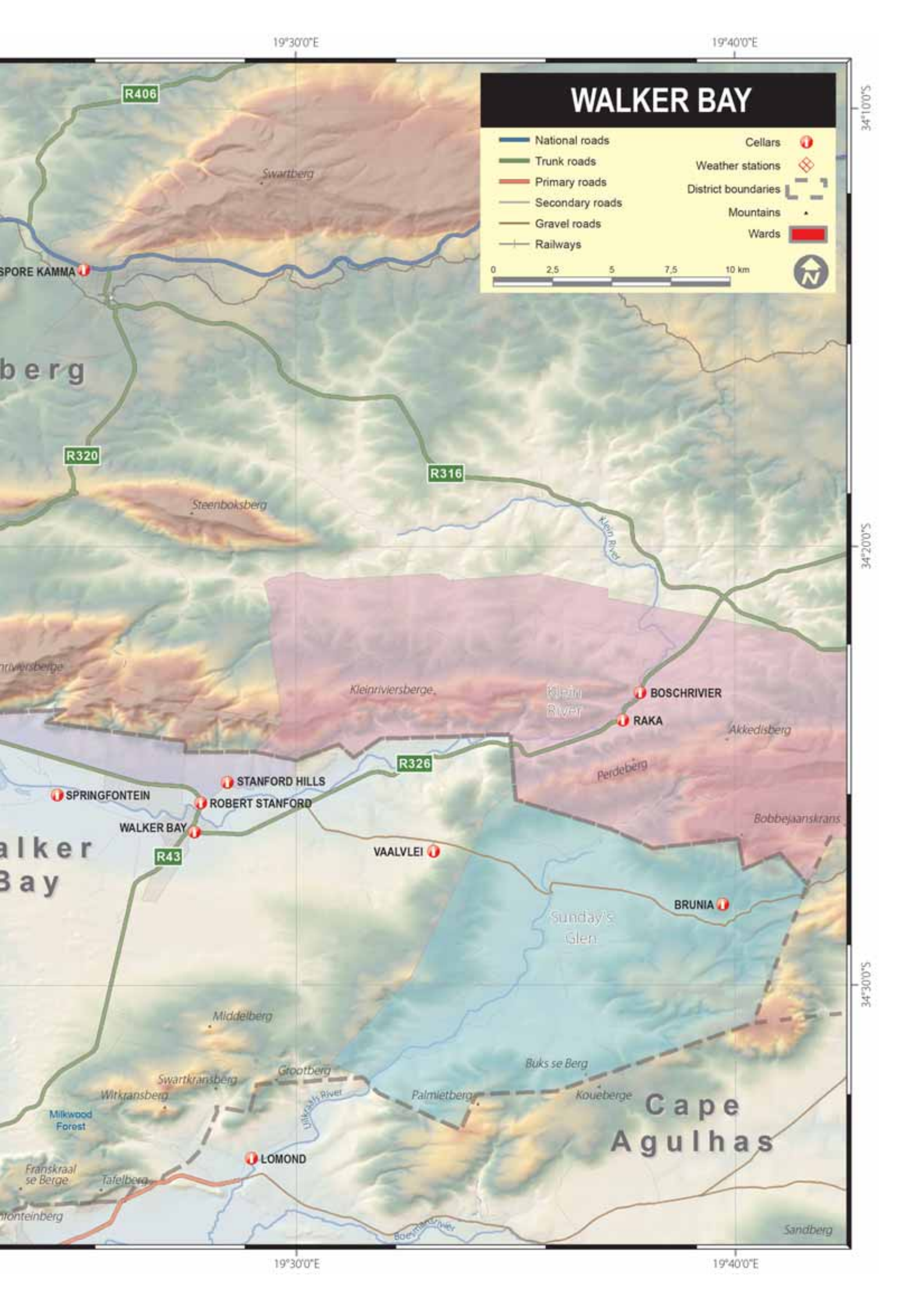
34°20'0"S

34°30'0"S

19°10'0"E

19°20'0"E





WALKER BAY

National roads	Cellars
Trunk roads	Weather stations
Primary roads	District boundaries
Secondary roads	Mountains
Gravel roads	Wards
Railways	

0 2.5 5 7.5 10 km

berg

Walker Bay

Cape Agulhas

19°30'0"E

19°40'0"E

34°10'0"S

34°20'0"S

34°30'0"S

19°30'0"E

19°40'0"E

Region: Cape South Coast
District: Cape Agulhas
Wards: Elim
District: Swellendam
Wards: Buffelsjags, Malgas, Stormsvlei
Ward (no district): Lower Duivenhoks River (see page 19)

Still further to the south in a zone hugging the coast all the way to Cape Agulhas, the most southern tip of Africa, sporadic plantings are taking place in a quest for exploiting cool terroirs.

The Cape Agulhas area once featured predominantly grain or cattle and sheep farms. The first vines were planted in 1996 and are centred around Elim, which lies on a peninsula washed by two oceans, the Indian and the Atlantic. The entire picturesque village, a Moravian mission settlement near Cape Agulhas which was founded in 1824, is a national monument. A ward generating much interest, its still small hectareage has shown great potential. The Agulhas Plain is home to one of the richest biodiversities in the world, equivalent to that of a tropical rainforest. Thousands of flora species flourish in this ward characterised by outstretched sand plains, wetlands, gravelly bottomlands, and extensive limestone and calcareous dunes. Wetlands have been restored and buffalo have been reintroduced in a pioneering project at the Nuwejaars Wetland Special Management Area. In Elim, with its mineral-rich soils, you will find up to five different soil types within a hectare of vineyard. The vineyards are exposed to very strong southeasterly winds. These strong, cooling winds are prevalent in summer, ensuring a very cool ripening season, perfect for Sauvignon Blanc in particular but also very promising for Semillon and Shiraz. The mean February temperature is 20.3°C and the average

annual rainfall is 535 mm. The grapes here develop unique and concentrated flavour profiles. The window of opportunity to pick at optimum phenolic ripeness is far longer than in warmer areas. Cool-climate aromatics, a flinty minerality, distinct flavours and elegance are the signature of the Elim wines. The nearby ward of Napier (see page 19) was demarcated in 2011.

Situated 80 km east of Cape Agulhas, the pioneering new ward of Malgas shares a similar climate, although a little warmer and significantly drier (350 mm of rain per annum). Geologically, the area has the same underlying Bokkeveld shale as Cape Agulhas and much of the Overberg but, lying on a plateau above the Breede River, most of the ward is covered with sporadic relics of river terraces – mainly sandstone boulders and pebbles. Visually the area is dominated by the impressive Breede River winding its way towards the sea (it is tidal for the length of the ward, limiting the use of any irrigation water) and the Potberg mountain / De Hoop Nature Reserve to the west. The river provides some of the best estuarine fishing in the country and is popular for waterskiing and other water sports. So far a single winery and vineyard has established itself, focusing on drought-resistant Mediterranean varieties.













ELIM

Weather Station	Agulhas Wines
Altitude	89 m
Dominant Influence	Proximity to Walker Bay
Heat Summation	1 683°C days (II-III)
MFT	20.3°C
Continentality	7.3°C
Total Rain	535 mm
Summer Rain	208 mm
Seasonal Evaporation	800 mm
Aridity Index	112 mm
Geology	Bokkeveld shale, marine deposits, granite intrusions and sandstone
Dominant Soils	Structured Estcour, Klapmuts and Swartland, ferruginous gravels, sandy Lamotte

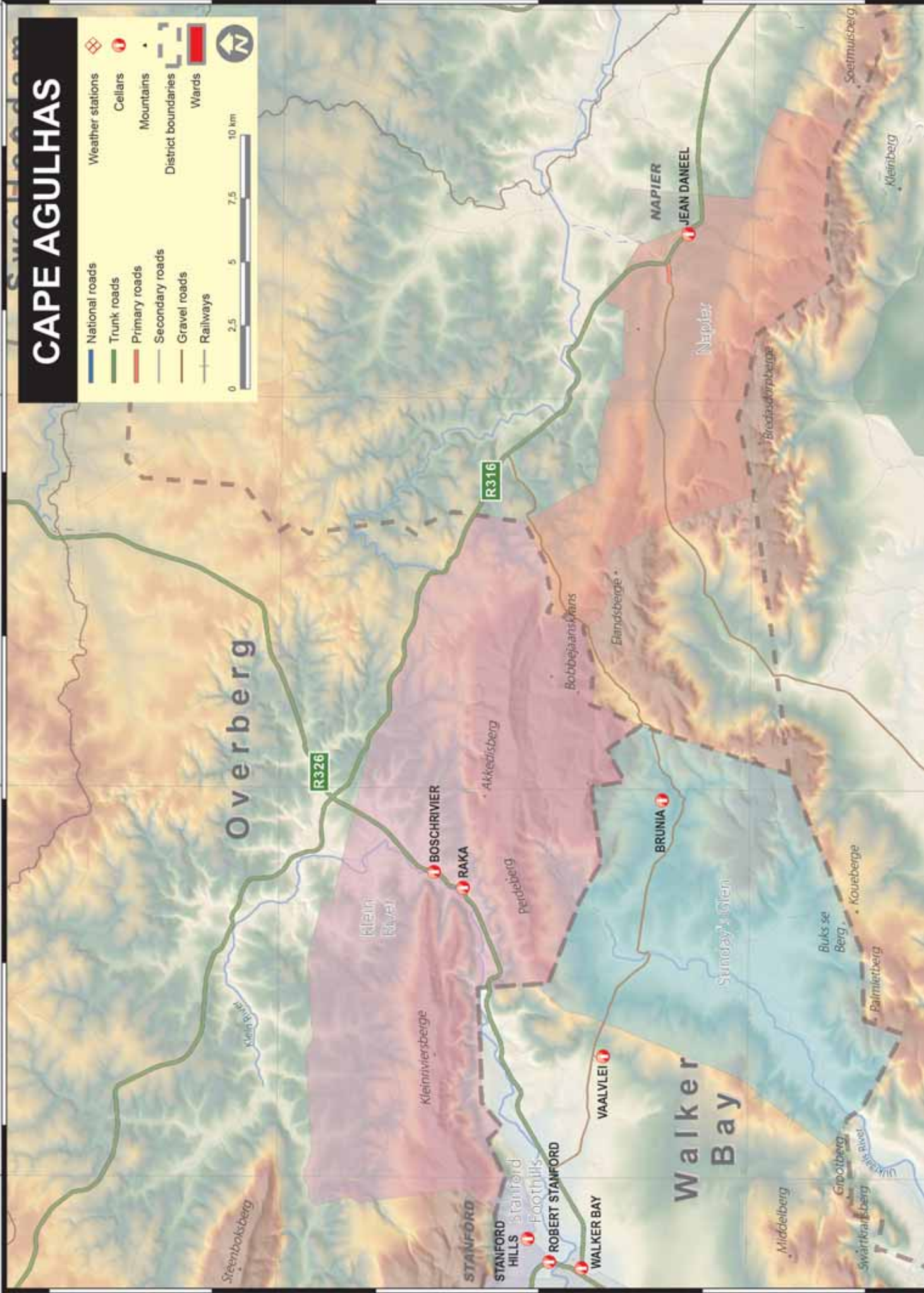


19°30'0"E 19°40'0"E 19°50'0"E 20°0'0"E

CAPE AGULHAS

 National roads	 Weather stations
 Trunk roads	 Cellars
 Primary roads	 Mountains
 Secondary roads	 District boundaries
 Gravel roads	 Wards
 Railways	

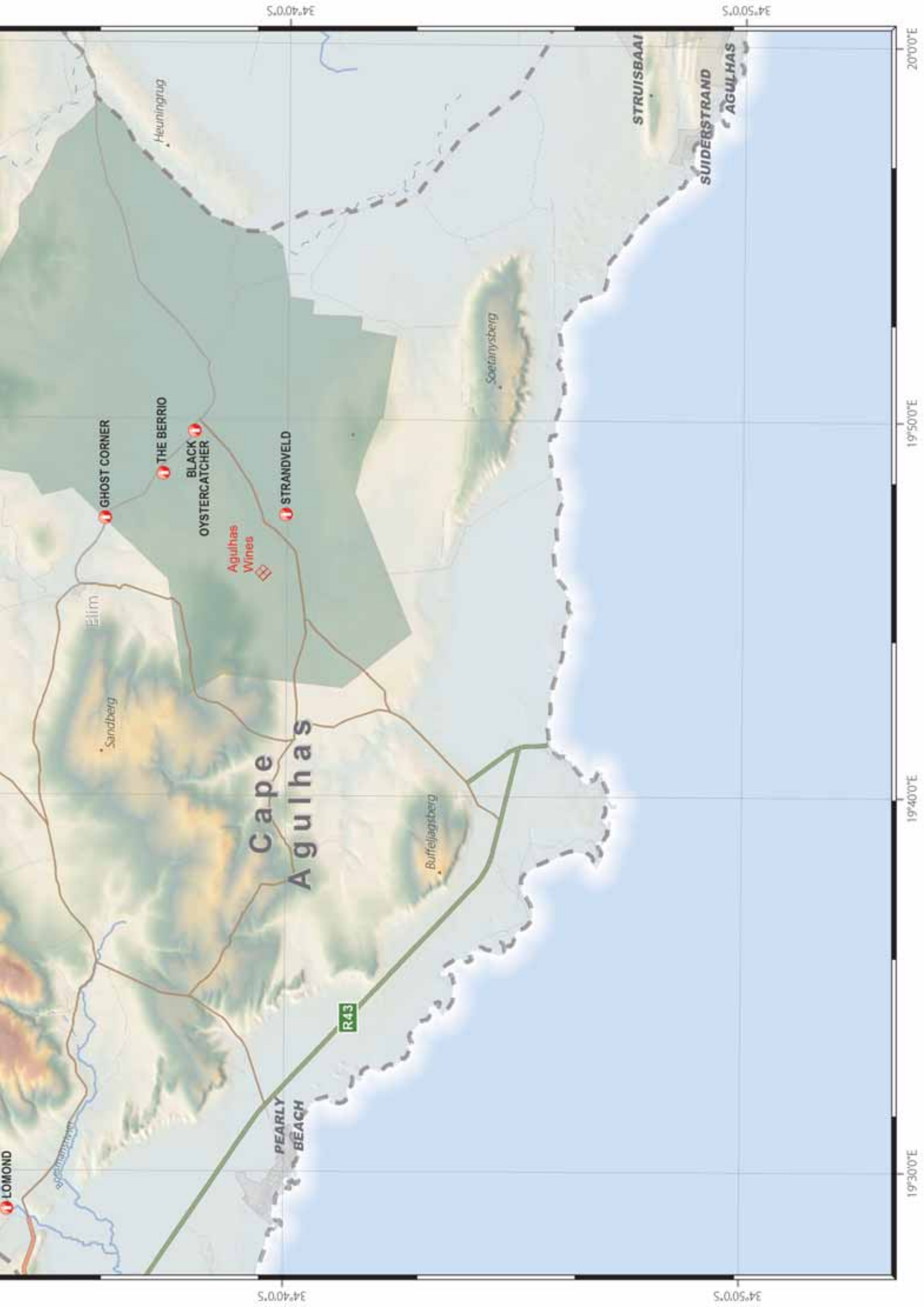
0 2.5 5 7.5 10 km



19°30'0"E 19°40'0"E 19°50'0"E 20°0'0"E

34°20'0"S 34°30'0"S

34°20'0"S 34°30'0"S



Up the WEST COAST

Region: Olifants River
District: Citrusdal Mountain
Wards Piekenierskloof
District: Citrusdal Valley
Wards (no region/district): Cederberg, Lamberts Bay (see page 19)

The **West Coast** with its charming fisherman's villages offers numerous outdoor activities including 4x4 routes, quad biking, river rafting, hiking, mountain biking and camping. Every year, after the first winter rains, the landscape is transformed into a carpet of veld flowers of every imaginable hue and fragrance, attracting hordes of visitors from far and wide. The rugged West Coast has pristine white beaches. The coastal area is perfect for nature lovers - it's a bird watcher's paradise and, from July each year, whales are regularly spotted in the many small bays.

The **Olifants River** region runs in a belt along the broad valley of the Olifants River and incorporates the stand-alone **Lamberts Bay** ward on the coast (see page 19); and the high-altitude wards of **Piekenierskloof** and **Cederberg** (see page 19), a stand-alone appellation which borders on this region.

The southern part of the valley up until Clanwilliam has an annual average rainfall of 370 mm. Irrigation is obtained from the Clanwilliam dam, where the water is of an excellent quality. The soils are mainly sandy alluvial soils from the surrounding Table Mountain sandstone mountains.

The climate of the high-lying inland ward of Piekenierskloof is conducive to organic cultivation. Isolated high-altitude vineyards are also found in the stand-alone Cederberg ward. Average temperatures are cooler than in the valley and average rainfall is higher.

The valley stretches from predominantly citrus-producing Citrusdal in the south to Koekenaap in the north.



CEDERBERG/PIEKENIERSKLOOF

Weather Station	Stagmanskop
Altitude	587 m
Dominant Influence	Enclosed valley and mountain platos
Heat Summation	2 036°C days (IV)
MFT	22.8°C
Continentality	10.5°C
Total Rain	473 mm
Summer Rain	147 mm
Seasonal Evaporation	1 666 mm
Aridity Index	520 mm
Geology	Sandstone-derived alluvium and colluvium
Dominant Soils	Dundee, Hutton, Clovelly, Glenrosa



18°40'0"E

18°50'0"E

19°0'0"E

19°10'0"E


32°10'0"S

32°20'0"S

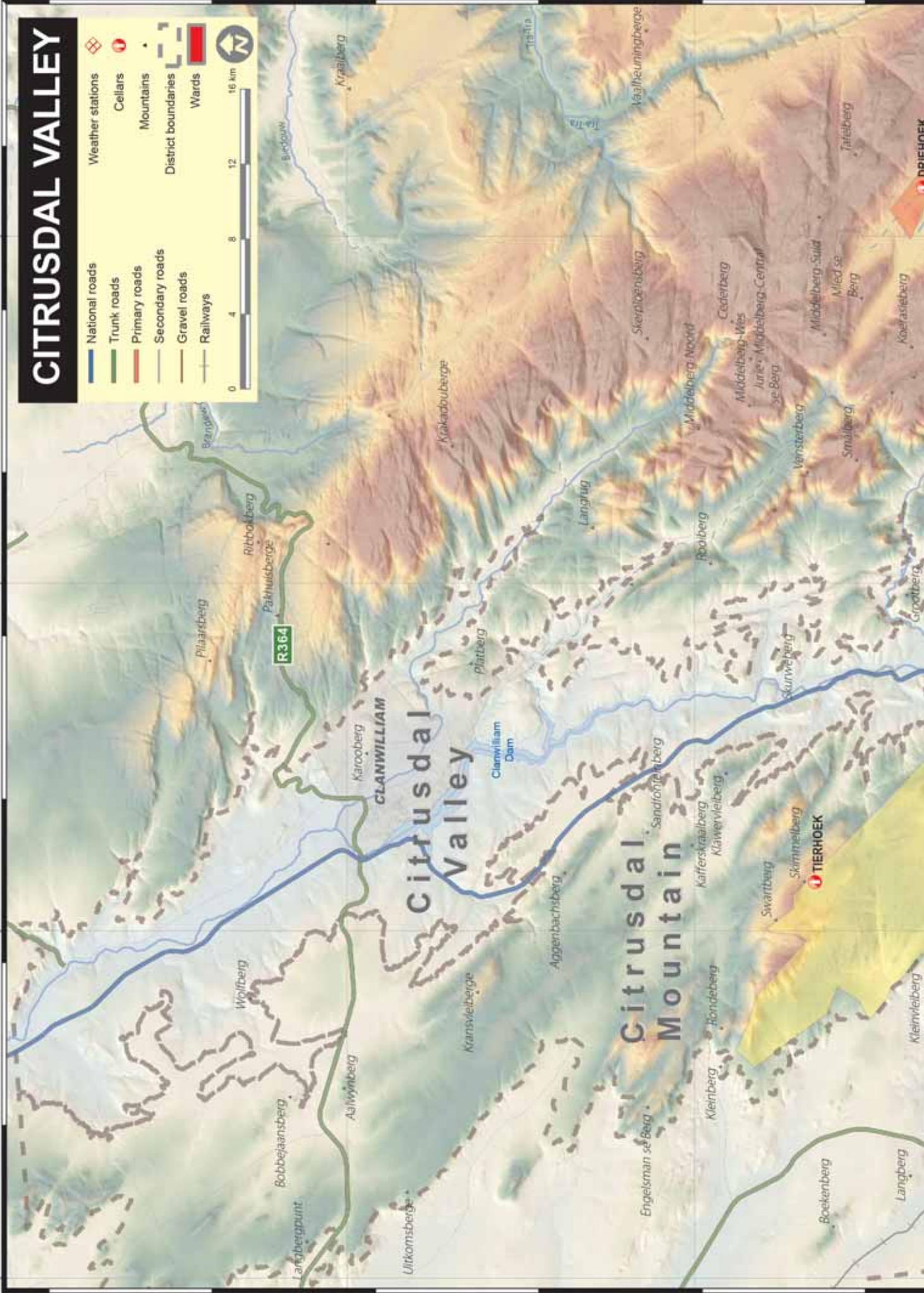
32°10'0"S

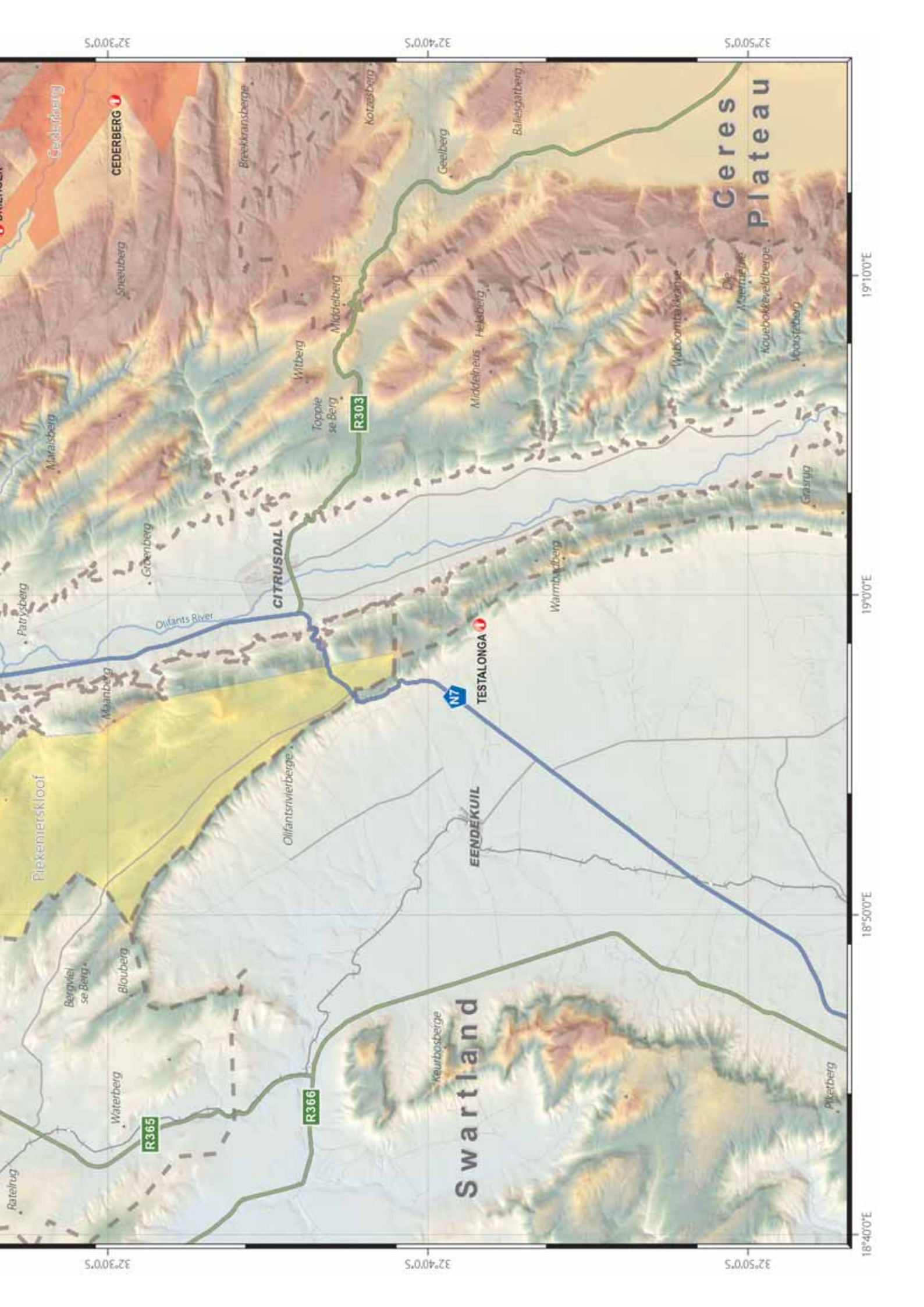
32°20'0"S

CITRUSDAL VALLEY

 National roads	 Weather stations
 Trunk roads	 Cellars
 Primary roads	 Mountains
 Secondary roads	 District boundaries
 Gravel roads	 Wards
 Railways	

0 4 8 12 16 km





Region: Olifants River
District: Lutzville Valley
Ward: Koekenaap
Wards (no district): Bamboes Bay, Spruitdrift, Vredendal (see page 19)

Further north, the river turns back towards the south-west and flows into the cold Atlantic Ocean. Intensive viticulture takes place in this part of the region, which incorporates the wards of Vredendal and Spruitdrift, as well as the cooler, sea-influenced wards of Koekenaap and Bamboes Bay.

Here the average yearly rainfall is 220 mm. Medium-textured, very fertile alluvial soils are found on the lower river terraces, while reddish-brown, medium-textured, calcareous duripan Karoo soils, similar to those of the Klein Karoo, are found on the higher reaches. Red windblown sand with underlying calcareous silcrete layers is found in isolated areas on higher landscapes. The alluvial and reddish-brown Karoo soils are very rich in cations and phosphate, and often contain free lime. Closer to the cold Atlantic Ocean in the vicinity of Koekenaap vineyards can be found where cooler climates ensure high quality slow-ripening grapes.

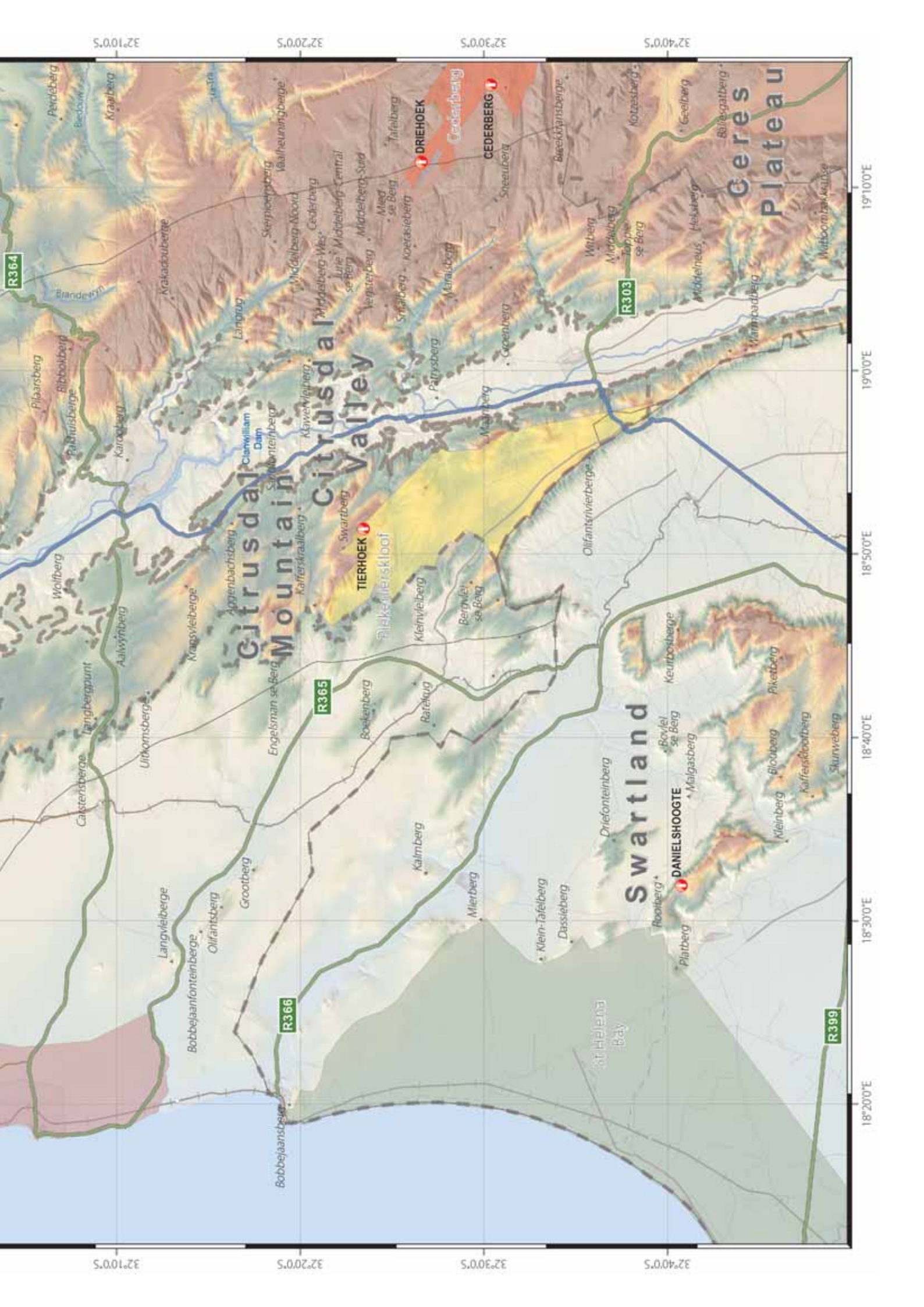
The most widely planted white-wine variety in the Olifants River region is Chenin Blanc and the main red-wine varieties are Shiraz, Pinotage and Cabernet Sauvignon. With careful canopy management, which ensures grapes are shaded by the vines' leaves, combined with modern winemaking techniques, the Olifants River is proving to be a source of quality, affordable wines.



VREDENDAL/LUTZVILLE

Weather Station	Ebenhaezer
Altitude	30 m
Dominant Influence	Proximity to cold Atlantic Ocean
Heat Summation	1 688°C days (II-III)
MFT	19.6°C
Continentality	6°C
Total Rain	122 mm
Summer Rain	48 mm
Seasonal Evaporation	1 442 mm
Aridity Index	454 mm
Geology	Old river delta deposits
Dominant Soils	Red-brown Oakleaf, dorbank calcareous Trawal





Heading north

NORTHERN CAPE

District (no region): Douglas (see page 19)
District (no region): Sutherland-Karoo (see page 19)
Wards (no region/district): Central Orange River, Hartswater, Prieska

This is the most northerly winegrowing area in the Cape.

The **Central Orange River** ward, which lies within the **Northern Cape** geographical unit, follows the course of the Orange River, comprising an area of some 4 659 ha, stretching from the Boegoeberg Dam in the east to the Augrabies Falls valley in the west, and covering a distance of some 350 km. The wine grape varieties grown are Chardonnay, Chenin Blanc, Colombard, Cabernet Sauvignon, Merlot, red and white Muscadel, Muscat d'Alexandrie, Pinotage, Ruby Cabernet and Shiraz. The average annual rainfall is between 120–160 mm and is restricted to spring and summer.

The main soil type of the Central Orange River ward is Dundee which comprises quite darkish, deep, well-drained, silty alluvial soils. Closer to the river are 'river-related' (i.e. prone to flooding) soils which are multi-layered, varying from silt-rich to much poorer sandy soils which induce less prolific vineyard growth. The 'non river-related' soils comprise shallow to deep red-yellow sandy material on lime nodules or duripans. These soils deliver the better wines.

Large trellising systems are employed in this area of which the gable and T-trellises are the

most in use. These create special microclimates which protect the grapes, allowing them to ripen away from exposure to the direct rays of the sun. Specific mesoclimates are created within vineyards located on the islands between the different streams of the Orange River, where the close proximity to the water cools down the grapes to a considerable degree.

These conditions contribute to creating climate pockets which are conducive to production of better quality wines. The styles of wine produced by the various wineries along the 350 km stretch of river differ singularly in style and flavour from the eastern to the western wineries. The soil types also vary greatly. The wines of the more eastern cellars are characterised by higher natural acids and lower pHs, resulting in quite delicate sensory profiles. Still further towards the east and northeast along the Vaal River you'll find similar dark, light- to medium- textured alluvial soils as well as structured red and grey soils, often with subsoil salinity problems, as well as reddish, sandy soils which are underlain by calcrete at varying depths further from the river courses.



LOWER ORANGE RIVER

Weather Station	Upington
Altitude	500–1 000 m
Dominant Influence	Aridity, soils
Heat Summation	2 647°C days (V)
MFT	25.3°C
Continentality	13.5°C
Total Rain	250 mm
Summer Rain	208 mm
Aridity Index	1 790 mm
Geology	Granite, dolorite, shale and quaternary alluvial deposits
Dominant Soils	Alluvial, silty, dark Dundee; red sandy calcareous Plooyburg



20°40'0"E

20°50'0"E

21°0'0"E

21°10'0"E

CENTRAL ORANGE RIVER

- National roads
- Trunk roads
- Primary roads
- Secondary roads
- Gravel roads
- Railways
- Cellars ●
- Weather stations ◊
- District boundaries
- Mountains ●
- Wards ■

0 7 14 21 28 km



28°20'0"S

28°30'0"S

28°40'0"S

28°50'0"S

29°0'0"S

29°10'0"S

R360

ORC UPINGTON

BEZALEL-DYASONSKLIP

Kanoneiland

ORC KEIMOES

DIE MAS VAN KAKAMAS

ORC KAKAMAS

Kromhout

Neusberg

Komsberg

Skurweberg

Gifberg

Piet Roosberg

R27

Swartberg

20°40'0"E

20°50'0"E

21°0'0"E

21°10'0"E

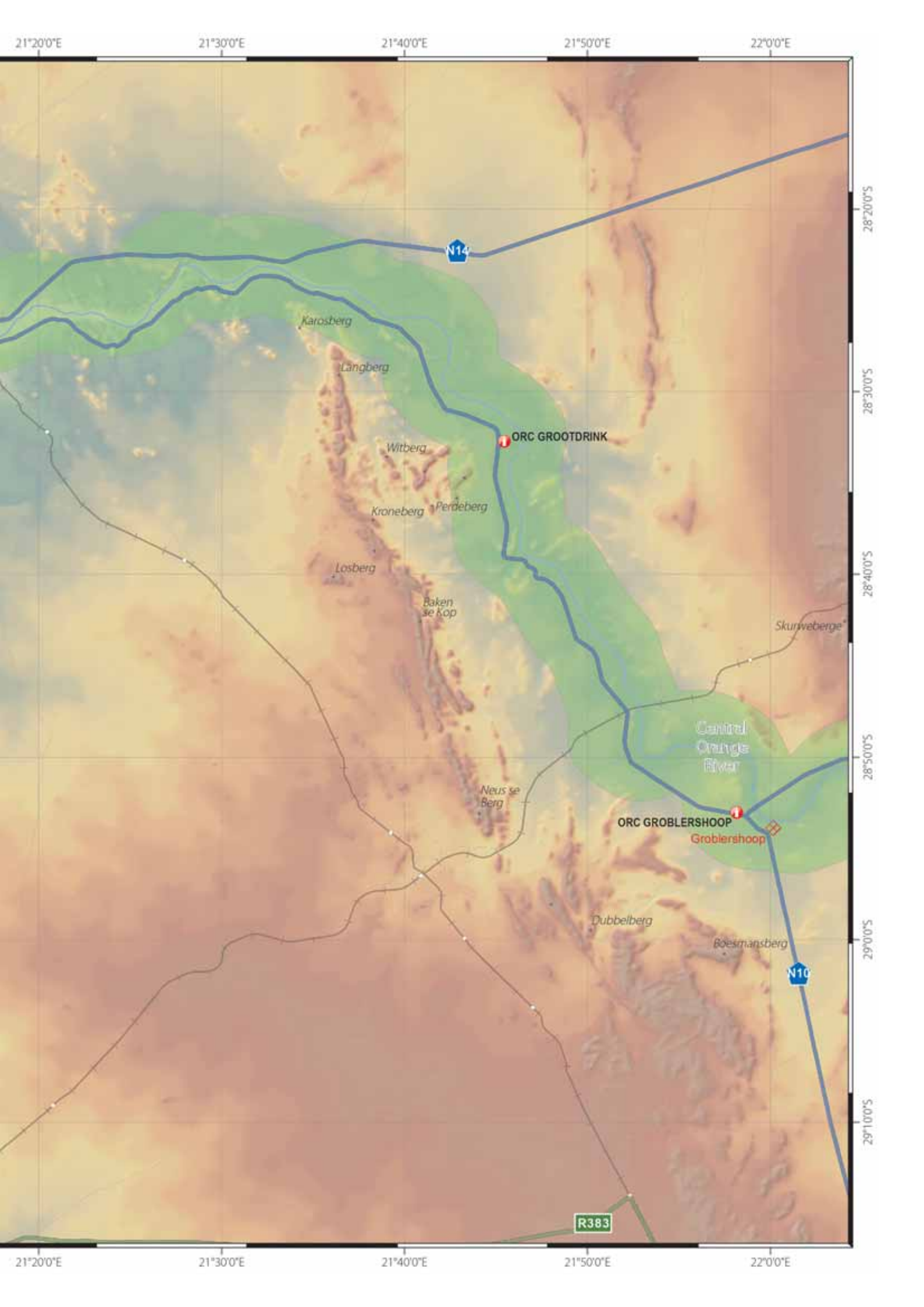
Sour

Mariboesrivier

Talbot

Signal Hill

Rooiberg



GLOSSARY

with reference to the winegrowing areas climate tables

Weather data adapted from *Climate Statistics for the Winter Rainfall Region up to 1989*, compiled by Section Agrometeorology, Elsenburg, Dept. Agric. Water Supply.

Heat Summation	Winkler Region
MFT	Mean February Temperature
	23.0 °C – very hot
	22.9 – 21.0 °C – very hot
	20.9 – 19.0 °C – warm
	18.9 – 17.0 °C – cool
	16.9 °C – cold
Continentality (CTL)	Mean February Temperature – Mean July Temp
	17.5 °C – very continental
	17.4 – 15.0 °C – continental
	14.9 – 12.5 °C – moderately continental
	12.4 – 10.0 °C – moderately maritime
	10.0 °C – maritime
Aridity Index (AI)	Difference between 0.4 standard USA class A-pan evaporation and seasonal rainfall (September - March)
	500 mm – very arid
	499 – 350 mm – arid
	349 – 200 mm – moderately arid
	199 mm – not arid

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