

**‘The existing state of affairs is a disgrace and a positive danger to the town’:
Water-borne disease and sanitation
in the Beaufort West Municipality, 1848-1955**

Wessel Visser*

Abstract

For more than two centuries, Beaufort West has been an essential stopover for people traversing an arid and sparsely populated region. Throughout its existence, the town has been plagued by water problems, whether they be drought, flash floods, or sanitary in origin. Many factors contributed to Beaufort West’s sanitary woes. Situated in the semi-arid central Great Karoo with an average rainfall of a mere 250mm, Beaufort West’s unique geographical positioning renders it climatologically vulnerable and because its water supply is heavily reliant on rainfall, regular droughts are inevitable. Groundwater extracted from boreholes has played an increasingly important role in the development of Beaufort West. Since the 1850s, it has been reliant on a very rudimentary potable water reticulation system of open street furrows, and a sewage system comprising cesspools and pail removals. Until the first half of the twentieth century many of the residents were self-sustaining and on their properties they kept farm animals such as pigs, sheep, goats, fowl and cows as food and horses as draught animals. These conditions created almost unsurmountable sanitation problems. The council minutes and sanitation reports of the Beaufort West Municipality frequently note the prevalence of two diseases – typhoid and diphtheria. This article investigates the root causes, manifestation, and health impact of these diseases on the community of Beaufort West. It traces the municipal initiatives to combat their occurrence, and the efforts made to improve the town’s general sanitary conditions. This case study of Beaufort West corroborates a hypothesis that modern-day outbreaks of water-borne diseases and sanitation in South Africa have a long historical antecedent.

Keywords: Beaufort West Municipality; water supply; sanitation; typhoid; diphtheria; typhus; cesspools; slop water; night-soil bucket system; water-borne sewage; pollution.

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Opsomming

Oor twee eeue heen, was Beaufort-Wes 'n noodsaaklike rushalte vir reisigers wat deur 'n droë en ylbevolkte omgewing gereis het. Sedert sy stigting is die dorp deurlopend geteister deur waterprobleme, hetsy droogte, vloedwater of besoedeling. Baie faktore het tot die dorp se gesondheidsprobleme bygedra. As gevolg van sy unieke geografiese ligging is die dorp klimatologies baie kwesbaar. Beaufort-Wes is in die sentrale Groot Karoo se semi-woestyn geleë, met 'n gemiddelde jaarlikse reënval van slegs 250 mm. Watervoorsiening aan die dorp is grotendeels van reënval afhanklik en gereelde droogtes is onvermydelik. Grondwater, wat deur middel van boorgate onttrek word, het deur die jare heen 'n toenemend belangrike rol in die ontwikkeling van Beaufort-Wes gespeel. 'n Baie rudimentêre waterverspreidingsstelsel, wat oorspronklik uit oop straatleiwore bestaan het, asook 'n rioolstelsel, bestaande uit nagemmer verwydering en putlatrines, is ontwikkel. Baie dorpenaars was selfonderhoudende inwoners wat plaasdiere soos varke, skape, bokke, hoenders en koeie as voedselbronne op hul eiendomme aangehou het. Hierdie situasie het byna onoorkomelike gesondheidsprobleme opgelewer. Twee waterdraende siektes - ingewandskoors en witseerkeel - het vir baie jare met reëlmaat opgeduik in die notules en gesondheidsverslae van Beaufort-Wes se munisipaliteit. Die studie ondersoek die oorsake, manifestering en gesondheidsimpak van hierdie siektes op die gemeenskap van Beaufort-Wes, asook die munisipale inisiatiewe wat aangewend is om die voorkoms daarvan te bestry en pogings om die dorp se algemene gesondheidstoestand te verbeter. Die gevallestudie van Beaufort-Wes bevestig die hipotese dat moderne uitbrekings van waterdraende siektes en sanitasie in Suid-Afrika 'n lang historiese aanloop het.

Sleutelwoorde: Beaufort-Wes Munisipaliteit; water sanitasie; ingewandskoors; witseerkeel; tifus; rioolputte; kombuiswater; nagemmerstelsel; waterdraende riool; besoedeling.

Introduction

The Covid-19 pandemic of 2019-2022 has re-focused the role of plague and disease in human history to the forefront of public interest. Yet, studies of plagues and diseases by social historians are by no means new. The field of epidemic diseases is vast. In the international context, Sheldon Watts's 1998 book *Epidemics and History: Disease, Power and Imperialism*,¹ focuses on seven of humankind's most dreadful diseases: bubonic plague, leprosy, smallpox, syphilis, cholera, malaria and yellow fever. Covering the period from the fourteenth to the twentieth centuries, he argues that human agency, such as that of church officials and the wealthy bourgeoisie,

1. S. Watts, *Epidemics and History: Disease, Power and Imperialism* (New Haven: Yale University Press, 1998).

stigmatised the victims of such diseases. Similarly, in the African context, Myron Echenberg's *Africa in a Time of Cholera* examines the depredations of the disease in the colonial and post-colonial eras. Among other themes, the role of environment and geography and that of armed conflict in the spread of cholera are discussed here, as are government policies and the breakdown of public health systems in war-torn countries.²

In South Africa since the 1970s and 1980s, increasing attention has been directed toward the history of disease by academic historians. Howard Phillips's 1984 seminal study on the impact of the 1918 Spanish Influenza in South Africa³ was extended in his 2020 publication, *Plague, Pox and Pandemics*. In addition, he focuses on the catastrophic course and consequences that diseases such as smallpox, bubonic plague, polio, and HIV/Aids have had on crucial moments in South Africa's history.⁴ Stephens Phatlane's PhD study locates health problems within their social, economic and political context and looks at the links between poverty and typhoid and other diarrheal diseases,⁵ while Jeanette Mills discusses the apartheid government's inadequate provision of clean water supplies and sanitation to many rural African communities.⁶ In 2009, Johan Tempelhoff investigated the outbreak of the 2008-2009 cholera epidemic among rural communities in South Africa's northern provinces. He came to the conclusion that the disease was transmitted from other parts of Southern Africa to South Africa and that a lack of water purification plants in rural and peri-urban areas also contributed to the spread of the epidemic.⁷

Julie Dyer's illuminating study, *Health in Pietermaritzburg (1838-2008): A History of Urbanisation and Disease in an African City*, focuses *inter alia* on the manifestation of water-borne diseases in the Pietermaritzburg municipal area,⁸ and her in-depth investigation into the history of disease in Pietermaritzburg in particular

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2. M. Echenberg, *Africa in a Time of Cholera* (Cambridge: Cambridge University Press, 2011). For similar studies on the societal effects of disease and epidemics on the population of Zimbabwe, see respectively the works of M. Musemwa, 'From Sunshine City to a Landscape of Disaster: The Politics of Water, Sanitation and Disease in Harare, Zimbabwe, 1980-2009', *Journal of Developmental Societies*, 26, 2 (2010), 165-206; and S. Chigudu, *The Political Life of an Epidemic: Cholera, Crisis and Citizenship in Zimbabwe* (Cambridge: Cambridge University Press, 2020).
 3. H. Phillips, "'Black October": The Impact of the Spanish Influenza of 1918 on South Africa', PhD thesis, University of Cape Town, 1984.
 4. H. Phillips, *Plague, Pox and Pandemic* (Auckland Park: Jacana Media, 2020).
 5. See S.N. Phatlane, 'Poverty, Health and Disease in the Era of High Apartheid: South Africa, 1948-1976' (D. Litt. et Phil thesis, University of South Africa, 2006).
 6. J. Mills, 'A Sociological Study of Water and Sanitation-related Diseases as a Socio-political Phenomenon in South Africa' (PhD thesis, University of South Africa, 1987).
 7. J.W.N. Tempelhoff, 'Leaving behind a "Twisted Soul": The 2008-2009 cholera outbreak in South Africa', *Journal for Contemporary History*, 34, 3, December (2009), 172-189.
 8. J. Dyer, *Health in Pietermaritzburg (1838-2008): A History of Urbanisation and Disease in an African City* (Pietermaritzburg: Natal Society Foundation, 2012).

was very useful in this study of Beaufort West. Although the two municipalities of Beaufort West and Pietermaritzburg differ substantially in terms of population composition, financial viability and the occurrence of disease, there is a correlation in both towns between certain sanitary conditions, e.g., potable water pollution by draught animals and non-sterilised milk causing diphtheria. Both towns also experienced occasional outbreaks of typhoid in the dry season, especially among the poor, as a result of water shortages caused by unclean potable water.

The debate on epidemic diseases in South Africa has often focused on the relationship between race, public health and sanitation. As early as 1977, Maynard Swanson published an article on the outbreak of bubonic plague in 1900 and 1904. Although it did not result in large numbers of fatalities, this outbreak is historically significant, he argues, because it resulted in the removal and segregation of African urban populations by colonial officials to Ndabeni and New Brighton in Cape Town and Port Elizabeth, respectively.⁹ In his more recent study of sanitation and environmental health, Harri Mäki expands on Swanson's thesis by adding that in the segregationist thinking of the nineteenth century there was an ideological, racially-biased link between blackness, uncleanliness and disease. According to this thinking, black people were more susceptible to prevailing sicknesses and were carriers of infectious diseases, hence the excuse to promote 'segregationist solutions to social problems'. The then widely accepted miasmatic theory posited that diseases arise in wet and dirty soil when organic matter decays.¹⁰

Marks and Andersson explain that white, ruling class fears of epidemic disease led to the development of policies of racial segregation that served as a 'public health' strategy to protect white settlers, and that as early as the nineteenth century, public health officials were in the forefront of the demand for urban residential segregation and social control. The outbreak of epidemic disease usually gave the impetus and opportunity to implement segregationist solutions to social problems. For example, in a 1988 publication we find a chapter titled 'Typhus and Social Control: South Africa, 1917-50', discussing the impact of epidemics such as typhus, cholera, typhoid, smallpox, venereal diseases and the bubonic plague among the African population.¹¹

However, Marc Epprecht's study refutes the claims made by Swanson and others that a 'sanitation syndrome' was mainly responsible for the creation of

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9. M.W. Swanson, 'The Sanitation Syndrome: Bubonic Plague and Urban Native Policy in the Cape Colony, 1900-1909', *The Journal of African History*, 18, 3 (1977), 387-410.
 10. H. Mäki, 'Comparing Developments in Water Supply, Sanitation and Environmental Health in Four South African Cities, 1840-1920', *Historia*, 55, 1, May (2010), 104-106.
 11. S. Marks and N. Andersson, 'Typhus and Social Control, South Africa, 1917-50', in *Disease, Medicine and Empire: Perspectives on Western Medicine and the Experience of European Expansion*, eds R. MacLeod and M. Lewis (London: Routledge, 1988), 257-283.

segregated African townships adjacent to white towns. He argues that other factors should also be taken into consideration. Epprecht argues, for example, that in terms of African opinion on urban segregation in Pietermaritzburg, segregation was implemented to reassert control over African beer brewers and those who indulged in drinking and social evils such as drunkenness. He claims that the mortality rate from typhoid – then regarded as a ‘white man’s disease’ – was lower among rural Africans than among urban whites. Furthermore, he asserts that the Natal Native Locations Act of 1904 was passed into law to stabilise the African work force and not to protect whites’ health.¹²

W.G.H. and S. Viviers’ book, *Hooyvlakte: Die Verhaal van Beaufort-Wes, 1818-1968*, is the official but uncritical chronicle of the town’s history and the authors refer to municipal water, health and sanitation conditions only in brief terms. The study lacks a thorough analysis of the causes and combat of disease. Furthermore, being published in 1969 during the heyday of the apartheid era, the 230-page book devotes a mere five pages to the ‘non-white community’ of Beaufort West although poor potable water reticulation, bad sanitary conditions and epidemics were persistent in those neighbourhoods.

This article forms part of a comprehensive research project on the water history of Beaufort West based primarily on its municipal council minutes, reports and documents and on government health documents housed in the Western Cape Archives and Records Service in Cape Town. Apart from investigating the town’s water-borne disease, the project also focuses on water provision and droughts in the municipal history of Beaufort West.

Beaufort West was proclaimed a town in 1818 and became the first municipality in South Africa in 1837.¹³ The town’s municipal minutes, reports and documents date back as far as 1848.¹⁴ This article focuses on water-borne diseases and sanitation in the period 1848 to 1955, when the newly completed Gamka Dam provided a much more secure source of potable water which improved sanitary conditions in the community. Surprisingly, no significant reports or correspondence on Beaufort West’s health situation for this period were published in *Die Burger*, a regional newspaper that had a readership from about 1915. Then too, very meagre information on the town’s sanitary conditions appeared in the town’s paper, *The Courier*, although droughts and floods in the region were well covered in both

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12. See M. Epprecht, ‘The Native Debate in Pietermaritzburg, 1848-1925: Revisiting the “Sanitation Syndrome”’, *The Journal of African History*, 58, 2 (2017), 259-283.
 13. W.G.H. Vivier and S. Vivier, *Hooyvlakte. die Verhaal van Beaufort-Wes 1818-1968* (Kaapstad: Nasionale Boekhandel Bpk, 1969), 6, 10; A.P. Smit, *Gedenkboek van Nederduitse Gereformeerde Gemeente Beaufort-Wes, 1820-1945* (Kaapstad: Nasionale Pers Beperk, c. 1945), 134.
 14. Vivier and Vivier, *Hooyvlakte*, 10; Smit, *Gedenkboek*, 134.

publications. Therefore, in this study, information on local sanitary conditions and disease has for the most part been drawn from municipal minutes and documents and government health reports. There is a complete lack of African and Coloured voices in residents' responses to the town's water, health and sanitation woes in the Beaufort West municipal records. During the era of segregation and apartheid the sanitation concerns of these residents had to be conveyed exclusively through white municipal interlocutors. A so-called municipal Coloured Management Committee was introduced as late as 1965,¹⁵ which falls outside the ambit of this article and furthermore this committee's documents could not be located in the collection of Beaufort West municipal records.

With the recent renewed outbreak of the cholera epidemic in some of South Africa's northern provinces the country was once again reminded of its sanitation vulnerability in terms of water-borne diseases and the problems to provide communities with adequate supplies of purified potable water.¹⁶ However, this article argues that the foundations of water-borne diseases in municipal areas were laid as far back as colonial times and it would take a long time, to the middle of the twentieth century, to get these sanitary conditions under control. Being the oldest proclaimed municipality in the country, Beaufort West's history of sanitation failures and successes to combat water-borne diseases forms an important part of the historiography of South African municipal water infrastructural development. Therefore, this article links up with other histories on water and sanitation published by Grant, Wall, Crosser, Zangel and Mäki.¹⁷

Although the occurrence of other typical diseases such as smallpox, hepatitis, syphilis, typhus, scarlet fever, cholera, whooping cough, tuberculosis and measles are noted in the archival records, two diseases, which at times reached epidemic proportions, feature more prominently in the municipal council minutes and sanitary

15. Vivier and Vivier, *Hooyvlakte*, 127. As towns in South Africa have maintained various forms of racial segregation since colonial times, this article will use words such as 'blacks', 'Africans', 'Coloureds' and 'whites' only where racial categorisation is needed to contextualise such persons' positions and circumstances as they constitute part of the general municipal population of Beaufort West in the historical nomenclature.

16. See for example *Die Burger*, 7 Junie 2023, 7 (M. Spies, 'Cholera-uitbreking kan landwyd versprei, waarsku kundige).

17. See for example D. Grant, 'The Politics of Water Supply: The History of Cape Town's Water Supply' (MA thesis, University of Cape Town, 1991); K. Wall, 'Water – Unifier of a City', in *African Water Histories: Transdisciplinary Discourses*, ed. J.W.N. Tempelhoff (Vanderbijlpark: North-West University, 2005), 97-113; E.M. Crosser, 'Water Supply and Utilization in Johannesburg, 1886-1905' (MA thesis, University of the Witwatersrand, 1987); V.A. Zangel, "'The Seething Masses": Housing and Sanitation in the Lives of Johannesburg's Poor, 1886-1906' (MA thesis, North-West University, 2004); and H. Mäki, *Water, Sanitation and Health: The Development of the Environmental Services in Four South African Cities, 1840-1920* (Tampere: Juvenes Print, 2008).

reports – those of typhoid and diphtheria.¹⁸ The combating of infectious diseases and sanitation is the responsibility of the municipality concerned. According to Marks and Andersson, typhoid is a ‘disease of poverty’ and occurs more particularly among impoverished black communities.¹⁹ Phatlane concurs with this view, noting that the prevalence of typhoid ‘reflects the poor quality of rural sanitation and polluted water supplies.’²⁰ He goes on to remark that in times of drought, the risk of typhoid infection is far greater in rural areas.²¹ In many instances, similar conditions are found to be prevalent in the outbreak of bouts of typhoid and diphtheria epidemics in Beaufort West, as this article illustrates.

This article discusses the history of the town’s water and sanitary conditions, and shows how the prolonged occurrence of various diseases affected the inhabitants of Beaufort West. It investigates what efforts the municipality made to eradicate such diseases. Situated in the semi-arid Great Karoo, Beaufort West’s water supply is heavily reliant on rainfall and droughts are inevitable.²² The town’s sanitary problems and water-borne diseases went hand in hand with the occurrence of serious drought conditions which marred its climatological history. In the period under discussion there was a lengthy period of drought between 1856 and 1859, again in 1915 and 1926, and also between 1942 and 1949. These conditions led to serious water shortages which in turn had a profound negative impact on hygienic practices and cleanliness among Beaufort West’s poorer inhabitants.²³

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18. Typhoid is a type of enteric fever and infection caused by ingestion of *Salmonella typhi* bacteria and can lead to severe gastro-intestinal and systemic illness. It is transmitted by the fouling of water through faeces or urine of infected individuals either directly by flies or indirectly by water. Risk factors include poor sanitation and poor hygiene. Diphtheria is an acute infectious and contagious disease due to *Corynebacterium diphtheriae*, which lodges in the tonsils and naso-pharynx of a victim, causing a characteristic grey membrane to form that may obstruct breathing and can progress to cause heart failure. It can spread by being in very close contact over a period of time with animals that carry it in their nose or throat or by drinking unpasteurised milk or eating products made from unpasteurised milk such as butter, skimmed milk and cheese. This disease occurred regularly among white and Coloured people and appears to have arisen in the late nineteenth century. See Dyer, *Health in Pietermaritzburg*, 71-72; <https://deputyprimeminister.gov.mt/en/health-promotion/idpcu/Pages/A%20to%20Z%20of%20infectious%20diseases/diphtheria.aspx>
 19. Marks and Andersson, ‘Typhus and Social Control’, 257, 259, 261.
 20. Phatlane, ‘Poverty, Health and Disease’, 164; Marks and Andersson, ‘Typhus and Social Control’, 278. According to Dyer, sanitary conditions in nineteenth century England was one of inadequate water supply, bad lighting and ventilation and poor sanitation and excrement thrown out into the street with household rubbish, all of which led to ill health. See Dyer, *Health in Pietermaritzburg*, 350.
 21. Phatlane, ‘Poverty, Health and Disease’, 164.
 22. P. Marais and F. von Dürckheim, ‘Beaufort West Reclamation Plant’, *Water and Sanitation in Africa*, 7, 1 (2012), 20.
 23. See W.P. Visser, ‘Between Drought and Deluge: A History of Water Provision to Beaufort West, ca. 1858-1955’, *New Contree*, 85 (2020), 1-21.

The geographical, sanitary and spatial setting of Beaufort West

Beaufort West lies in a hollow between two hills and is flanked by the Gamka River in the west and the Kuils River in the east. Both rivers flow in a generally north to south direction and became semi-perennial as a result of urbanisation in the twentieth century. With an average annual rainfall of a mere 250 mm, the municipality has two main sources of water, namely groundwater and surface runoff, originally captured in the Springfontein Dam, an irrigation reservoir completed in 1869.²⁴ From this dam, which is at the northern end of the town centre, to its southern end, the gradient is about 1:150 m (0.67%).²⁵

Until about 1770, when white trekboers began to penetrate the area, San hunters dominated the Nieuweveld Mountains near the later town of Beaufort West.²⁶ The origins of the town go back to the era of the Dutch East India Company (DEIC) when the loan farm Hooyvlakte was granted to Jacob de Clerq and his son, Jacob, in 1780. Originally, a gushing spring on the Gamka River ensured abundant water even during severe droughts. Four springs also fed the Kuils River, and De Clerq senior was even able to dig an irrigation furrow from the Gamka River spring to irrigate his garden. He focused on fruit and vineyards and from his own garden he was able to sell dried fruits, raisins and wine on the Cape market. In the early nineteenth century, in order to establish a magistracy for the district, the British colonial authority bought plots of land on the eastern banks of the Gamka River. The name Hooyvlakte was eventually changed to Beaufort West.²⁷

The town became the major administrative, agricultural and economic centre of the central Great Karoo. It also serves as an important road and rail transit and crossing to other towns in modern-day South Africa. According to Erasmus's research, the total population of Beaufort West in 1960 was 16 417 and the population comprised 5 338 whites, 7 384 Coloureds, 3 670 Africans and 25 Asians. Today, despite its administrative, transport and agricultural significance, the town lacks large revenue-generating industries. The regular periods of drought also impact negatively on economic activity and significant sections of the community across the colour divide can be regarded as poor or economically vulnerable. The town's largest economic income is derived from the mutton, wool and mohair industries. In

24. W.P. Visser, 'Water Shortages in Beaufort West: Lessons Learnt and Applied during the 2009-2011 and 2017-2019 Droughts', *The Journal of Transdisciplinary Research in Southern Africa*, Online (2022), 2, <https://doi.org/10.4102/td.v18:1.1118> ; Marais and Von Dürkheim, 'Beaufort West Reclamation Plant', 20.

25. E-mail correspondence, Author to J. de Waal, Department of Geography, Stellenbosch University, 27 January 2020.

26. H.J. van Aswegen, *History of South Africa to 1854* (Pretoria: J.L. van Schaik Academic, 1993), 117.

27. Hooyvlakte was re-named Beaufort West after the Earl of Beaufort. See Vivier and Vivier, *Hooyvlakte*, 3-7, 10; Smit, *Gedenkboek*, 134.

conditions of poverty, squalor and poor sanitation practices, this early community was especially vulnerable to epidemics such as typhoid and diphtheria.²⁸

The first plots or ‘reservoir erven’ were large. As settlement spread out on the flood plains between two rivers, many homeowners dug potable water wells on their properties because the water table was very shallow. Although a little less than 500 km from Cape Town, before the arrival of the railways, the town for long had to do without fresh supplies from the metropolis and many inhabitants were self-sustaining in providing household foodstuffs. They grew fruit, vegetables and fodder and kept animals such as pigs, sheep, goats, fowl and cows to provide food and horses to use as draught animals. To provide potable water there were open furrows on both sides of the then earth streets. Other than that, water was drawn from private potable water wells.²⁹ As for sanitation, there was a very primitive sanitary infrastructure consisting of cesspits and a system of slop water and nightsoil removal pails.

At the time, water reticulation via open furrows was not confined to South African towns. Between the middle of the nineteenth and the early twentieth century many metropolises in the western United States of America such as Los Angeles, Denver, Phoenix and Salt Lake City made similar use of ditches and canals, called ‘zanjas’, to carry potable water.³⁰ However, in Beaufort West the gradient difference between the northern and southern ends of the town occasionally caused the pollution of potable water sources and for many years this contributed to a severe and gnawing problem of the spread of water-borne diseases.

In terms of racial and spatial separation, Beaufort West was no different from the demographic layout of other rural towns in South Africa. Sue Parnell indicates that the government’s manipulation of planning regulations to protect white residential conditions was an early tool by which South African cities were racially segregated. This residential segregation, with a separate location for the indigenous population, was common to many colonial settlements. Legislative measures on matters of health (such as the Public Health Act of 1919) and housing regulations were used to secure the racial division of urban space. Racial segregation was seen as an integral part of effective public health control. African access to urban areas could therefore be restricted to supervised municipal locations.³¹ Vivier and Vivier state that since the founding of Beaufort West ‘people of colour’ lived among whites in

28. G.J. Erasmus, ‘Navorsingsverslag. Sub-streek: Die Sentrale Karoo, Beaufort-Wes en Omgewing’, Instituut vir Toegepaste Bestuurswetenskappe, Universiteit van Stellenbosch, 1986, 9,14-15,17-18.

29. Vivier and Vivier, *Hooivlakte*, 7-8, 10, 14-15, 23.

30. See M. Holleran, ‘Water Qualities and Usage in the Zanjias of Los Angeles, 1781-1904’, *Environmental History*, 27, 3 (2022), 491-493, 509-510.

31. S. Parnell, ‘Creating Racial Privilege: The Origins of South African Public Health and Town Planning Legislation’, *Journal of Southern African Studies*, 19, 3 (1993), 471-473, 479.

certain neighbourhoods. But as early as 1880, an informal neighbourhood or ‘location’ for Coloureds and Africans was established by the municipality at the southern end of the town on the western bank of the Gamka River. By 1900 there were 980 residents there. They could build their own dwellings and municipal housing was also erected from about 1896. The Natives (Urban Areas) Act of 1923 paved the way for proclaiming the ‘location’ in 1925 as an African neighbourhood although the majority of the inhabitants were still Coloured persons at that stage. In 1942, the new Coloured neighbourhood of Rustdene was established and in 1953, after the proclamation of the Group Areas Act of 1950, Newton, a ‘model’ township for propertied Coloureds, was developed. A report by the inspectors of Urban Locations and of Native Revenue clearly states that it was government policy ‘to urge local authorities to establish separate residential localities’ for Coloureds and Africans. All these townships were built towards the southern and western parts of Beaufort West. Vivier and Vivier declare that as the black population of the town increased, many dwellings deteriorated into squalor and hovels because of abject poverty.³²

Early sanitary conditions in Beaufort West, c. 1858-1898

Epidemics became a regular concern in the second half of the nineteenth century. According to Vivier and Vivier, a Medical Officer of Health (MOH), James Christie, was appointed in 1837.³³ A colonial Public Health Department was set up in 1897,³⁴ at which stage medical and municipal officials such as sanitation inspectors became more involved in the management of municipal sanitation. As early as 1858, complaints reached the municipal council that nightsoil tanks were positioned too close to the Springfontein Dam and were being cleaned in the Kuils River which flowed at the edge of the town. In the same year, the Chief Constable informed the council that the drain from a town dweller’s yard was carrying ‘impurities’ into the town’s potable water supply. Inhabitants were fined 10 shillings for contravening irrigation regulations and were warned regularly to keep garbage away from the water furrows running past their erven.³⁵ Typical pollutants of the open potable water furrows were loose soil and manure from stray animals and sheep and these pollutants flowed into in the Springfontein Dam.³⁶ Nor was Beaufort West alone in

32. Western Cape Archives and Records Service (hereafter WCARS), TBK, PAA (AA), Vol. 13/43. ref. A 10/9, Beaufort West Municipality Health Reports, 1931- 1970, G.A. Brand and F.J. Opperman: Report on Inspection of Beaufort West Location on 16 to 19 July 1948: Increase of Location Charges, 9 August 1948. See also Vivier and Vivier, *Hooyvlakte*, 127 and T.R.H. Davenport, *South Africa: A Modern History*, Third Edition (Johannesburg: Macmillan, 1987), 259, 362.

33. Vivier and Vivier, *Hooyvlakte*, 53.

34. Marks and Andersson, ‘Typhus and Social Control’, 260.

35. WCARS, Archives of the Town Clerk Beaufort West 1848-1990 (3/BFW), Vol. 1/1/2/2, Minutes of a Council Meeting, 21 September 1858; 16 November 1858; 23 November 1858; 18 October 1859.

36. WCARS, 3/BFW, Vol. 1/1/1/3, Minutes of a Council Meeting, 23 January 1863;

suffering this health hazard. Similar polluting agents were also reported in the potable water supply of Pietermaritzburg in the late nineteenth century.³⁷ The first reference in the municipal minutes to typhoid appears in 1874,³⁸ and according to Vivier and Vivier, smallpox, syphilis and typhoid were among the most dreaded diseases in nineteenth century South Africa. Typhoid was perhaps the deadliest. It was claiming many lives because of a plethora of unhygienic conditions: the close proximity of slaughterhouses and domestic stables to homes; refuse dumps; dead animal carcasses being dumped on the immediate outskirts of the town, and the municipal pound, where flies bred at an alarming rate.³⁹

The sanitary committee regularly reported on the filth and stench of domestic pigsties and the foul water that percolated through the surrounding soil.⁴⁰ The storage of milk posed a particular sanitation issue. The sanitary inspector found very few cases where milk was stored satisfactorily, and there were even instances where milk was stored in bedrooms and living rooms. In some cases, milk vendors kept their cows in crowded slums and members of the public requested that these vendors be barred from selling milk unless they provided suitable places for milk storage. Unhygienic conditions were suspected of causing diphtheritic croup in the town.⁴¹ The sale of unhygienic milk correlated once again with conditions in Pietermaritzburg in the same period, where milk was bottled in open yards, contaminated by dust, dirt and manure. Being conveyed in open-mouthed cans also meant that the quality of milk storage was poor. At a congress of the Royal Sanitary Institute in Johannesburg, held in March 1913, it was confirmed that milk acted as a vehicle of infection in cases of typhoid fever and diphtheria. Many dairies in these two towns provided non-sterilised milk. And in 1927, some fatal typhoid cases in the Cape Province, especially among Coloured persons, were traced to infected milk supplies.⁴²

The regular removal of domestic waste was initiated only in 1880, when the municipality acquired a horse-drawn dumpcart and by 1881 municipal regulations stipulated that animal carcasses were to be dumped an adequate distance from the town and public roads.⁴³ By 1891 the council started compelling town dwellers to

Minutes of a Council Meeting, 31 October 1882; 3/BFW, Sanitary Committee Reports, Vol. 1/2/1/3/1, 18 January 1895.

37. See Dyer, *Health in Pietermaritzburg*, 95.

38. WCARS, 3/BFW, Draft Minute Book, August 1872-August 1874, Vol. 1/1/2/1, Minutes of a Special Council Meeting, 12 June 1874.

39. Vivier and Vivier, *Hooyvlakte*, 53.

40. WCARS, 3/BFW, Minutes of a Council Meeting, 31 October 1882; Sanitary Committee Reports, July 1882-December 1897, Vol. 1/2/1/3/1, 18 February 1885; 15 February 1895.

41. WCARS, 3/BFW, Vol. 1/2/1/3/1, Sanitary Committee Reports, 25 January 1895.

42. See Dyer, *Health in Pietermaritzburg*, 102-103, 108, 110; *The Courier*, 10 April 1913 (Royal Sanitary Institute).

43. Vivier and Vivier, *Hooyvlakte*, 53.

replace cesspits on their premises with ‘proper water closets or latrines’, consisting of stone, brick or corrugated iron. The structures had to meet the approval of the sanitary committee.⁴⁴ In the same year a bucket system for the removal of nightsoil by cart was introduced and the municipal charge was ‘one shilling per bucket for removal’.⁴⁵ However, the nightsoil removal was very far from compliant with proper waste removal procedures. The council commissioned a hole in the bed of the Kuils River at the lower end of the town where night soil buckets could be cleaned, but the white ratepayers complained about the stench because the excrement was not properly covered with soil.⁴⁶ The council minutes of 1894 reflected the less favourable health conditions in Beaufort West and referred to the ‘insanitary state of the town’, the ‘unsatisfactory water supply’ and the ‘high death rate’.⁴⁷ By this time, however, the council was still unable to enforce colonial regulations regarding the total closure of cesspits which were to be replaced by the nightsoil pail system.⁴⁸ The sanitary inspector also demanded that pigs should only be kept on town premises if the owner had permission obtained from the council.⁴⁹

In 1895, a lengthy report by the Under Colonial Secretary confirmed that Beaufort West was ‘in a most insanitary state’. Some private water wells were too close to cesspits. The report also stated that unfavourable conditions of health were prevalent especially among ‘coloured persons’. The pollution of potable water, which was most prevalent among the poorer town dwellers, was a major problem. It also transpired that some landlords kept closets locked to save the expense of emptying the nightsoil buckets regularly.⁵⁰

It therefore came as no surprise when a serious bout of typhoid struck Beaufort West in 1896. The situation warranted a report by the colonial Medical Officer of Health (MOH), Dr George Turner, who investigated the possible sources of the outbreak. There were 32 cases identified, 16 white and 16 Coloured residents, including five fatalities. The majority of cases were resident in the northern part of the town which was densely populated and where people lived in ‘disreputable hovels’. One of the fever outbreaks occurred in a poor neighbourhood where people were exposed to pollution. Another problem seemed to have been the covered water furrows, many of which were dirty and leaking. The colonial MOH regarded these

44. WCARS, 3/BFW, Vol. 1/1/1/9, Minutes of a Council Meeting, 13 February 1891.

45. WCARS, 3/BFW, Vol. 1/1/1/9, Minutes of a Council Meeting, 1 July 1891; 31 July 1891.

46. WCARS, 3/BFW, Vol. 1/1/1/10, Minutes of a Council Meeting, 19 August 1892; 20 May 1895.

47. WCARS, 3/BFW, Vol. 1/1/1/10, Minutes of a Council Meeting, 17 August 1894.

48. WCARS, 3/BFW, Vol. 3/1/1/1/3, Correspondence, town clerk to colonial secretary, 12 February 1894.

49. WCARS, 3/BFW, Vol. 1/2/1/3/1, Sanitary Committee Reports, 15 Feb 1895.

50. WCARS, Colonial Office (hereafter CO), Vol. 7553 Health Branch, Correspondence: Under Colonial Secretary to Local Government and Health Branch, 25 February 1895.

furrows as ‘practically sewers and the entrance of sewer air into the house ... [was a likely] cause of this fever’. He ordered that furrows were to be kept open and cleaned properly. Water from the Gamka River, which was also used for domestic purposes, was ‘notoriously polluted’. It also seemed that some well water was contaminated and spring water sources could have been contaminated by infected buckets. He came to the conclusion that ‘the only way to protect the Town in the future [was] to provide a supply of water delivered in pipes’.⁵¹

A striking feature of the monthly health and sanitary reports to the council is the regular reference to the ‘unsatisfactory’ sanitary condition of the ‘native locations’ where by 1897 most cases of typhoid broke out. The dwellings in these areas were described as ‘filthy, disorderly and overcrowded’. Slops were poured out in front of the huts, soiling the area around the shacks. Public closets were in a ‘most disreputable condition’. As a result, Dr Leicher, the MOH at the time, concluded, ‘we must not be surprised at the numerous cases of typhoid’. Furrow water, consumed by at least two thirds of the town’s population, was also used for culinary purposes and was to a certain extent contaminated by the dirty water thrown from these homes.⁵² This situation induced the municipal council to provide more latrines in the African and Coloured locations.⁵³ The quality of potable water improved somewhat by 1898 when the first water reticulation system was introduced,⁵⁴ but in terms of sewage the council still encountered reluctance among ratepayers to close down old cesspools and install latrines or the pail system instead.⁵⁵

The epidemic ravages of war

The South African War of 1899-1902 put huge pressure on Beaufort West’s infrastructure and the civilian community was unable to keep pace. A few thousand British troops and horses were stationed in and around the town, placing significant pressure on the water supply and its quality. Problems and friction between civilian and military authorities soon arose over the exploitation of the town’s resources and other assets. Horse manure and street filth that polluted water furrows became a daily occurrence and heightened civilian frustrations.⁵⁶ The council had misgivings about the advisability of erecting a military camp above Beaufort West’s water supply and after complaints to the magistrate, imperial troops were prohibited from swimming in the Springfontein Dam.⁵⁷

51. WCARS, 3/BFW, Vol. 1/2/1/3/1, Sanitary Committee Reports, Report on the prevalence of Typhoid Fever at Beaufort West, December 1896.

52. WCARS, 3/BFW, Vol. 1/2/1/3/1, Sanitary Committee Reports, 1 March 1897; 14 June 1897.

53. WCARS, Vol. 3/1/1/1/3, Minutes of a Council Meeting, 28 September 1896; 5 Oct 1896.

54. Vivier and Vivier, *Hooyvlakte*, 10, 32-33.

55. WCARS, 3/BFW, Vol 1/1/1/11, Minutes of a Council Meeting, 13 February 1899.

56. Vivier and Vivier, *Hooyvlakte*, 140-142.

57. Vivier and Vivier, *Hooyvlakte*, 140; WCARS, 3/BFW, Vol 1/1/1/11, Minutes of a

More military camps were erected in the vicinity of the town which placed even more pressure on the limited water supply. Concessions made to the British garrison to dig a well in the Gamka River for drinking and domestic purposes were abused by soldiers who washed their clothes there, polluting the town's water supply. And in December 1899, the council's sanitary inspector discovered that the nightsoil from the military camp north of the town was buried in trenches on a hill above the Springfontein Dam. The camp was removed to the south of the hill and away from the dam only after complaints by the municipal council. Civilian pail removals could only be done 'with difficulty' because of the constant demand of military passes from the night cart drivers by soldiers.⁵⁸

To top it all, a new typhoid and diphtheria epidemic struck Beaufort West during the war years. Another report by the Dr George Turner stated that the town's typhoid death rate was ten times higher than the norm. Until November 1899, the incidence of typhoid was low but this jumped to 70 cases by May 1899. After a period of serious drought rainwater flowed over the polluted mud in the Springfontein Dam which in turn was used for domestic purposes. Many poor people were crammed together in the same dwellings where household utensils were scarce and shared and where faecal matter in the potable water had a negative impact on food hygiene. While deprecating the still-existing cesspools, Turner suggested introducing municipal bylaws to prevent overcrowding in the town's poorer quarters. When cesspool removal was not enforced and the surroundings were strewn with faecal matter the situation was fraught with danger. Improvement became imperative and cowsheds, horse stables and pig-sties were erected some distance from human dwellings and were built with floors 'impervious to moisture and perfectly drained'.⁵⁹

This typhoid epidemic correlates with similar unsanitary conditions in towns like Pietermaritzburg. There the peak of typhoid infection was in the hottest part of the year in a period of low subsoil water at the end of a dry season that was then followed by heavy rains. This meant that surface pollution was washed into drinking water sources.⁶⁰ Marks and Andersson, explain that drought also affects the water supply in that poorer people are unable to wash as often as usual.⁶¹ In the light of the outbreak of typhoid and diphtheria it was suspected that polluted river water in Beaufort West was the cause of death from these diseases; the location inspector suggested that the installation of potable water tanks in the Coloured and African locations was imperative to halt their spread.⁶²

Council Meeting, 14 November 1899; 21 November 1899.

58. Vivier and Vivier, *Hooyvlakte*, 141; WCARS, 3/BFW, Vol 1/1/1/11, Minutes of a Council Meeting, 19 November 1900; 26 November 1900; 10 December 1900; 21 January 1901; Vol. 1/1/1/12, Minutes of a Council Meeting, 30 September 1901.
59. WCARS, 3/BFW, Vol. 1/1/1/11, Minutes of a Council Meeting, 9 May 1899.
60. Dyer, *Health in Pietermaritzburg*, 97.
61. Marks and Andersson, 'Typhus and Social Control', 267.
62. WCARS, 3/BFW, Vol. 1/1/1/11, Minutes of a Council Meeting, 26 March 1900.

Sanitary conditions in the early twentieth century

The advent of the twentieth century brought no improvement of Beaufort West's sanitary situation. The town remained under Martial Law until 1902, and added to this, the municipal council found itself in an austere financial position. Public works improvements were virtually impossible under war conditions. By May 1901, there were still 128 functioning cesspools in town.⁶³ Infectious disease still occurred because of polluted furrow water, contaminated milk and overcrowding. Ratepayers lacked the financial resources to pay for services and this meant that the municipality lacked the resources to improve the town's sanitation. At a council meeting in June 1900 the 'free removal of night soil was strongly urged as one of the best sanitary measures for the prevention of disease'. The small neighbouring town of Fraserburg had a free pail system, but many residents in the larger Beaufort West were unable to pay for regular night soil removal and this, in turn, created ideal conditions for epidemics and disease.⁶⁴ In an effort to isolate patients who had contracted infectious diseases such as typhoid or diphtheria from the general population, the council erected a quarantine house or 'lazaretto', east of the Kuils River.⁶⁵

The Coloured and African locations were a particular health concern for the municipal council. Regular committee reports show the urgency of improving sanitary conditions. Night soil and other refuse had to be 'secured' through the erection of public and private latrines. Some of the 'native blocks' were in a 'deplorable state', 'filthy and uninhabitable'. This clearly became a contributing factor to the epidemic conditions and spiralling death rate in Beaufort West.⁶⁶ The pressure on the sanitary committee to improve the town's sanitation took its toll on municipal personnel. Because of their inability to improve the town's appalling sanitary condition, public pressure heightened on the sanitary inspectors. Some of these sanitation inspectors were accused of neglecting their duties and failing to report cases of unhygienic conditions and water pollution practices and there were many resignations of staff. This made the position and supervisory role of these officials unstable, contributing even more to the community's sanitary woes.⁶⁷ By 1904, there

63. WCARS, 3/BFW, Vol. 1/1/1/12, Minutes of a Council Meeting, 6 May 1901; Vivier and Vivier, *Hooyvlakte*, 140-142.

64. WCARS, 3/BFW, Vol. 1/1/1/11, Minutes of a Council Meeting, 23 July 1900; 24 September 1900.

65. Vivier and Vivier, *Hooyvlakte*, 53. See also WCARS, 3/BFW, C76, Minutes of General Committee Meetings, Minutes of Health Committee Meeting, 3 November 1920; *The Courier*, 6 March 1918 (Municipal Matters).

66. WCARS, 3/BFW, Vol. 1/1/1/12, Minutes of a Special Council Meeting, 28 May 1901; Minutes of a Council Meeting, 16 September 1901; *The Courier*, 6 March 1918 (Municipal Matters).

67. See for example, WCARS, 3/BFW, Vol. 1/1/1/12, Minutes of a Council Meeting, 7 October 1901; WCARS, CO, Vol. 7553 Health Branch, Correspondence: J.H. Goodrich to Magistrate, 6 December 1898.

was some improvement in the pail system and a new tank was built for the nightsoil cart.⁶⁸ However, the system still had hygienic shortcomings. Many pails lacked lids which led to spillage of nightsoil in the streets and the availability of new pails remained a problem.⁶⁹

A 1911 health report by Mitchell, assistant MOH of the Cape Province and A.J. Westby, the local Beaufort West MOH, stated that ‘the removal of nightsoil appears to be efficiently done’ although there were still about 100 cesspools in use. They were to be abolished and pail removal made compulsory. The report added that ‘the council would be well advised to close’ all the cesspools. In the town’s slum areas slop waters were still being flushed into the streets or backyards. Furthermore, outbreak of bouts of typhoid could be ascribed to unhygienic dairies and the Gamka fountain, used by dwellers from the northwestern neighbourhoods as the source of drinking water, was unsafe and prone to pollution. The mere 20 nightsoil pails in the location were inadequate to serve 600 people and were not used properly.⁷⁰

Mitchell’s follow-up health report dated 1916 was even more scathing. According to his findings, almost nothing had been done to improve slum conditions. Many town dwellers were still using polluted irrigation furrows as a source of potable water. There were still dairies too close to houses and two abattoirs were unhygienic. Goats kept on domestic premises were a danger for public health. Night soil removal was deemed ‘excellent’, but many closets ‘were still unsatisfactory’. The removal of slop water was inefficient. One slop cart was in use which could only deal with a small portion of slop water. The refuse depositing site was an eyesore and a breeding place for flies. It was recommended that the council should burn the refuse. There were still 80 cesspools in use and these should be closed. Ironing rooms were to be provided in white households as it ‘would do away with the practice of taking clothing into the coloured people’s houses’. The report went on to say that locations should be kept cleaner because currently only five percent of the nightsoil was being removed by the pail system. Mitchell also touched upon ‘the prevalence of contagious diseases, which was increasing’. It seems that Mitchell was of the opinion that the municipal isolation hospital (the ‘lazaretto’) was inadequate accommodation for patients who were suffering from infectious diseases.⁷¹

However, Beaufort West’s unsatisfactory sanitary conditions then seemed to take a turn for the better; they had changed substantially by 1918. The sanitary inspector reported improved dairy hygiene by enforcing regulations. The council had introduced a scorecard system to ensure a clean milk supply.⁷² These improvements were echoed in

68. WCARS, 3/BFW, Vol. 1/1/12, Minutes of a Council Meeting, 22 November 1904.

69. WCARS, 3/BFW, Vol. 1/1/13, Minutes of a Council Meeting, 4 February 1908.

70. WCARS, 3/BFW, Vol. 1/1/14, Minutes of a Council Meeting, 22 August 1911.

71. WCARS, 3/BFW, Vol. 1/1/15, Minutes of a Council Meeting, 3 October 1916; *The Courier*, 14 February 1917, 4 (B.W. Municipality).

72. WCARS, 3/BFW, Vol. 1/1/16, Minutes of a Council Meeting, 8 January 1918; 5 February 1918; 9 April 1918.

the annual health report on Beaufort West which confirmed that the council had employed its first certified sanitary inspector and that his supervision was deemed 'satisfactory'.⁷³ Regulations from the Minister of Native Affairs stipulated that 'the natives [should be] provided with a wholesome supply of water and proper sanitation'.⁷⁴ A cart tank was obtained to ease the problem of excess slop water on many town premises, but the disposal of this water into furrows still created a pollution problem.⁷⁵ By 1920, the council received a letter from the Provincial Secretary instructing it to issue regulations that would enforce the closure of cesspools because 'the continuation of cesspits are considered unsuitable in a town such as Beaufort West'. The implementation of better health regulations and higher standards of inspection thus led to some improvements towards the end of the 1910s.⁷⁶ Furthermore, the Union government passed the 1919 Health Act which established a legislative code to control infectious diseases and thereby improve environmental sanitation.⁷⁷

The 'dirty' 1920s and 1930s

The sanitary conditions in Beaufort West appear to have undergone some regression in the 1920s. Outbreaks of typhoid and diphtheria were reported, and from time to time there were also cases of enteric fever. In 1921, the council had to combat a serious outbreak of typhus in the African and Coloured neighbourhoods.⁷⁸ Many factors can be blamed for the occurrence of these infectious diseases. As mentioned above, the high levels of poverty in the town, particularly among poverty-stricken black tenants and squatters, caused filth, human distress and overcrowding. With so many low income, poor rate-paying residents, the municipality lacked the revenue to finance new infrastructural projects such as council housing and sanitation that could ameliorate health conditions swiftly and permanently. For example, the municipal revenue for 1924 was £13 486 and the expenditure £13 635. There was an abundance of louse-borne infections caused by rats, mice and fleas overrunning the dilapidated dwellings which formed 'a ring of slums almost all around the town'. Large families were living in one room; there were too few water closets in the neighbourhood, and there was a lack of wash places and shower baths. V.C. Bensley, the local MOH, was of the opinion that 'filthy street dust carried through the air' could also spread diseases such as typhoid. The council declared that the 'existing state of affairs [a]round those quarters is a disgrace and a positive danger to the town'.⁷⁹

73. WCARS, PAS, Vol. L10/L/T6 – L10/L/T13, V.C. Bently to Medical Office of Health for the Union, 6 February 1918: Annual Health Report for 1917.

74. WCARS, 3/BFW, Vol. 1/1/1/15, Minutes of a Council Meeting, 13 November 1917.

75. WCARS, 3/BFW, Vol. 1/1/1/16, Minutes of a Council Meeting, 4 June 1918; 30 July 1918; 2 September 1919.

76. WCARS, 3/BFW, Vol. 1/1/1/16, Minutes of a Council Meeting, 23 March 1920.

77. Marks and Andersson, 'Typhus and Social Control', 261.

78. See e. g. WCARS, 3/BFW, C77, Minutes of Health Committee Meetings, 1921-1924, Minutes of Health Committee Meeting, 20 May 1921; 10 June 1921; 8 July 1921; 22 July 1921; 21 October 1921.

79. Marks and Andersson, 'Typhus and Social Control', 264-267; WCARS, 3/BFW, Vol.

Other carriers of infectious diseases were the abundance of flies breeding at abattoirs, in open nightsoil disposal trenches, on the refuse tipping ground, as well as on untreated animal manure. A 1924 sanitary inspector's report referred to 'putrescent animal matter on domestic premises' and added that if the council clamped down on such 'dirty ... negligent ratepayers there would be a general improvement in health and a big decrease in the incidence of typhoid and kindred ailments'. Furthermore, open furrow water from the Gamka River was still being polluted and led to the occurrence of diphtheria. One of the town councillors, a certain V.F. Stanbridge, was of the view that the landlords of Coloured tenants who were using furrow water as a drinking source should be compelled to have water laid on from the municipal water mains.⁸⁰ Added to this, the lack of a water-borne sewage system in Beaufort West created a regular sanitary 'nuisance' at the Royal Hotel. The hotel building had a bathroom, which was a novelty in the town's public accommodation, but this innovation caused the municipality a recurring problem of excess slop water.⁸¹ The matter of farm animals on domestic premises as a potential polluting agent of potable water came up again in 1925. L.P. Lloyd, the sanitary inspector, reported that he had received complaints about animal droppings which polluted water sources. He considered these animals the 'root of the evil', advising that they should be removed from premises that were far too small and congested to be kept there.⁸²

Some improvement was noted in the nightsoil removal system when the council purchased a motorised truck to replace the horse-driven carts.⁸³ The 1915 government health report for Beaufort West was also of the opinion that the provision of suitable and adequate housing for its Coloured community would help to prevent the spread of infectious and communicable diseases.⁸⁴

1/1/17, Minutes of a Council Meeting, 17 May 1921; 20 September 1921; 22 January 1924; 9 December 1924; WCARS, 3/BFW, C77, Minutes of Health Committee Meeting, 29 July 1921; 19 August 1921; WCARS, 3/BFW, C78, Vol. 1/2/3/1/2, Minutes of Health Committee Meetings, 1924-1928, Minutes of Health Committee Meeting, 14 October 1924; WCARS, TBK, PAA (AA), Vol. 13/43. ref. A 10/9, Beaufort West Municipality Health Reports, 1931-1970, W.A. Murray: Report of Systematic Inspection of Beaufort West on 17 April 1925; *The Courier*, 25 May 1921 (Municipal Council).

80. Vivier and Vivier, *Hooyvlakte*, 53; Dyer, *Health in Pietermaritzburg*, 104; WCARS, 3/BFW, C77, Minutes of Health Committee Meeting, 23 March 1923; 21 October 1921; 25 August 1926; WCARS, 3/BFW, C78, Vol. 1/2/3/1/2, Minutes of Health Committee Meeting, 21 April 1925; 15 December 1925; 3/BFW, C81, Vol. 1/2/2/1/3, Minutes of Health Committee, 26 August 1921; 11 November 1924; 3/BFW, Vol. 1/1/1/19, Minutes of a Council Meeting, 27 August 1929; 10 January 1934.
81. Vivier and Vivier, *Hooyvlakte*, 63-64; WCARS, 3/BFW, C77, Minutes of Health Committee Meeting, 10 November 1922; 20 November 1923. According to Dyer, the word 'nuisance' in municipal terms implied a condition that is injurious to health, or is indecent or offensive to the senses, or forms an obstruction to the free use of property, affects a community or neighbourhood and occurs during, or as a result of, the treatment or disposal of wastes or refuse. Dyer, *Health in Pietermaritzburg*, 94.
82. WCARS, 3/BFW, C78, Vol. 1/2/3/1/2, Minutes of Health Committee, 3 November 1925.
83. WCARS, 3/BFW, Vol. 1/1/1/18, Minutes of a Council Meeting, 31 August 1925.
84. WCARS, TBK, PAA (AA), Vol. 13/43. ref. A 10/9, Beaufort West Municipality Health Reports, 1931-1970, W.A. Murray: Report of Systematic Inspection of Beaufort West

Less than a decade later, in 1931, P.W.P. Cluver, the government's assistant health officer, wrote a favourable report on Beaufort West's health conditions stating that the occurrence of typhoid had 'dropped considerably' and that it was hoped that this would continue by keeping down the fly population as much as possible.⁸⁵ However, it was reported that closet pail removals from needy tenement dwellers, especially in the Coloured locations, still posed a huge problem and leaky pails gave rise to a stench that was 'almost unbearable and markedly noticeable in the adjacent streets and roads'. It was also 'extremely detrimental' to public health. Large families produced quantities of nightsoil in each closet, so the sanitary inspector proposed that there be a bi-weekly instead of a weekly removal of tenement pails.⁸⁶ Public laundries along the course of rivers were also a problem because of unhygienic washing methods which could contaminate the laundry with infectious pathogens.⁸⁷

The mid-1930s saw another spike of typhoid fever cases in Beaufort West. According to the 1936 census figures the town's total population stood at 8 500 and had risen to 12 500 by 1955, as explained in the graph below.⁸⁸ In 1937, 26 cases were noted and the following year this had risen to 53 in 1938. Flies were considered the greatest menace for the spread of typhoid, and the ongoing consumption of furrow water or water from open, unprotected wells for domestic purposes was established as the source of the epidemic. Town dwellers were also urged to clean their private potable water tanks properly. The government pathologist, W.F. Rhodes, proposed that the council should replace the pail system of night soil removal in favour of a vacuum tank system. The remedy for polluted water was a proper chlorination plant. Should the council consider the implementation of a water-borne sewage system, the great benefits of which were seen in Paarl, it was suggested that the incidence of typhoid could drop to 2.5 per thousand population. Once again, his report suggested the closure of all stables and kraals from town premises.⁸⁹

on 17 April 1925.

85. WCARS, 3/BFW, C79, Vol. 1/2/3/1/3, Minutes of Health Committee Meeting, 28 September 1931; WCARS, TBK, PAA (AA), Vol. 13/43. ref. A 10/9, Beaufort West Municipality Health Reports, 1931-1970, P.W.P. Cluver: Report on Brief Inspection of Health and Sanitary Conditions Prevailing in the Municipal Area of Beaufort West on 28 September 1931.
86. WCARS, 3/BFW, Minutes of a Council Meeting, 17 January 1933; 3/BFW, 4, Minutes of Health Committee Meeting, 7 February 1934; WCARS, TBK, PAA (AA), Vol. 13/43. ref. A 10/9, Beaufort West Municipality Health Reports, 1931-1970, P.W.P. Cluver: Report on Brief Inspection of Health and Sanitary Conditions Prevailing in the Municipal Area of Beaufort West on 28 September 1931.
87. WCARS, 3/BFW, 4, Minutes of Health Committee Meeting, 21 February 1934; *The Courier*, 27 May 1931 (Municipal Council).
88. Visser, 'Between Drought and Deluge', 6.
89. WCARS, 3/BFW, Vol. 1/1/1/21, Minutes of a Council Meeting, 21 April 1936; 5 May 1936; 19 May 1936; 2 June 1936; WCARS, 3/BFW, 4, Minutes of Health Committee Meeting, 23 April 1936; 12 May 1936; 11 June 1936; WCARS, TBK, PAA (AA), Vol. 13/43. ref. A 10/9, Beaufort West Municipality Health Reports, 1931-1970, Correspondence: W.F. Rhodes to Deputy Chief Health Officer re Water supply:

However, although the local council approved the acquisition of a vacuum tank system for bi-weekly night soil removal, the matter of keeping animals on domestic premises continued to be a thorny issue. On the one hand, there was the connection between animals, flies, and typhoid. On the other hand, it was argued that such a step would impose ‘extreme hardship’ for those residents whose livelihood depended on such animals. Even after heated, rowdy debate the council was reluctant to prohibit the keeping of animals on housing properties because there was such opposition from these residents and after all, they were ratepayers. By 1940 a chlorination machine was installed which made a significant improvement to the town’s potable water quality. No cases of typhoid were reported by the MOH for that year and the strict enforcement of regulations to prohibit keeping animals on domestic premises made a marked difference, reducing the fly menace, ‘which greatly contributed towards the clean health bill of the town’.⁹⁰

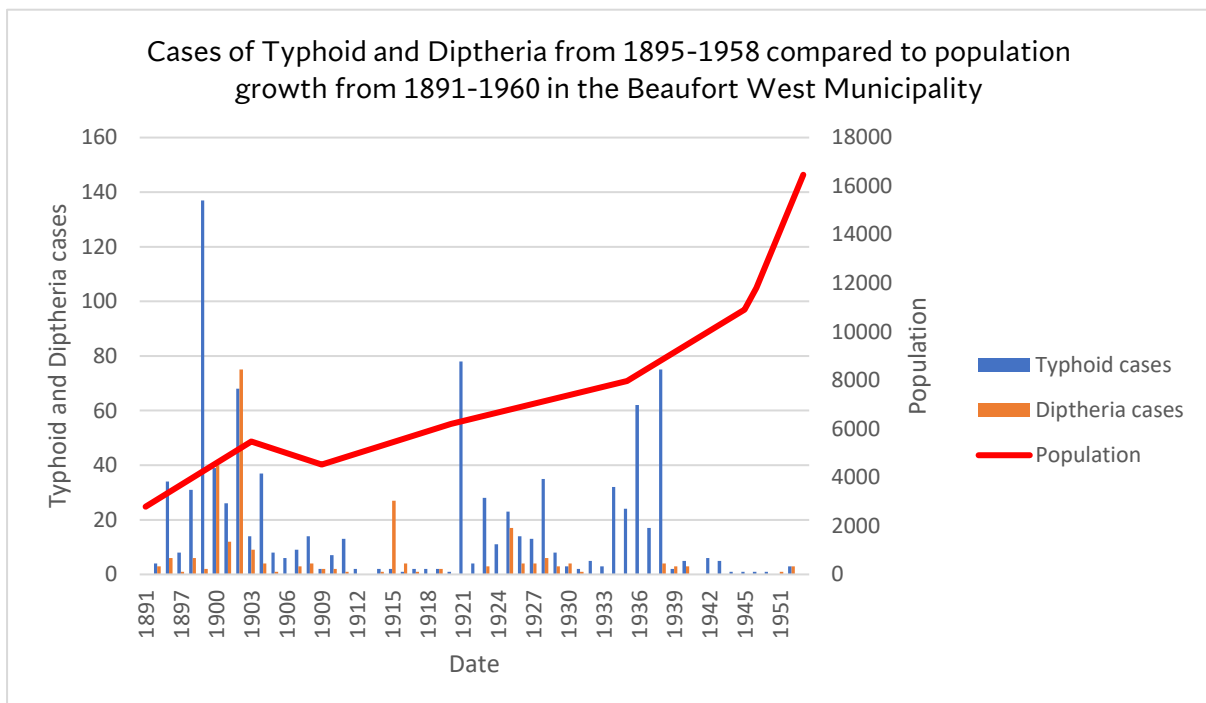


Figure 1: Data on these infectious diseases were compiled from available archival documents of the Beaufort West Municipal Council as no similar information could be derived from the Department of Health. Although the figures indicated on the graph are thus not based on officially audited data, and are also biased as a result of income groups and race-based differences, it is a fair reflection of the prevailing sanitation conditions in Beaufort West between 1895 and 1955. The spikes in infectious diseases correlate more or less with the outbreak of the South African War in 1899; the drought of 1915-21; the national typhus outbreak in 1921, and the Great Depression of the 1930s.

Beaufort West, and Typhoid Incident, 23 March 1938; *The Courier*, 6 April 1938 (Rhodes Addresses Town Council); *The Courier*, 30 Aug 1939, 6 (Health Report of Town).
 90. WCARS, 3/BFW, Vol. 1/1/1/21, Minutes of a Special Council Meeting, 16 July 1936; 6 October 1936; 7 September 1937; 5 October 1937; 25 October 1937; 22 March 1938; 5 April 1938; 16 September 1940; WCARS, 3/BFW, C125, Vol. 1/2/3/1/5, Minutes of Health Committee Meeting, 8 August 1937; *The Courier*, 28 August 1940 (Beaufort West Health Report).

The gradual improvement of sanitary conditions and the implementation of a water-borne sewage system

Municipal and government reports state that health and hygiene conditions in the African and Coloured neighbourhoods began to improve in the 1940s when the appalling sanitary situation compelled the municipal council to build new blocks of latrines. Night soil was being removed daily, although typhoid fever still broke out occasionally because of flies breeding on compost works near the location. The town's water mains were also connected to the mains in these areas. The inspectors of Urban African Locations and of Native Revenue reported that the streets of Beaufort West's African location were clean. 'Heavy expenditure' was incurred annually on wages for four sanitary cleaners and there was a permanent refuse removal service.⁹¹ In 1946 the municipality launched an anti-diphtheria campaign and 378 Coloured and 171 white children were vaccinated.⁹² More diphtheria immunisation campaigns followed in 1951 and 1954-1955 and between 1948 and 1954 the last kraals were removed from town premises.⁹³ Therefore the fly menace was also brought under control in the early 1950s.⁹⁴

The issue of a sewage system for Beaufort West had been raised from time to time in council meetings since 1925. According to the government pathologist, W.F. Rhodes, the serious outbreak of typhoid in the 1930s was due to bad sanitation and as 'long as the present state of affairs is allowed to exist, typhoid will not be stamped out'. It could be eradicated by water-borne sewage, but at that stage, due to financial constraints, the municipality could not afford the implementation of the system.⁹⁵

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91. WCARS, 3/BFW, Vol. 1/1/1/22, Minutes of a Council Meeting, 19 January 1942; 21 September 1942; 18 January 1943; Vol. 1/1/1/23, Minutes of a Council Meeting, 19 April 1943; 21 July 1943; WCARS, TBK, PAA (AA), Vol. 13/43. ref. A 10/9, Beaufort West Municipality Health Reports, 1931-1970, G.A. Brand and F.J. Opperman: Report on Inspection of Beaufort West Location on 16th-19th July 1948: Increase of Location Charges, 9 August 1948; R.L. Retief: Stelselmatige inspeksie van sanitêre en gesondheidstoestande in die gebied van die plaaslike owerheid van Beaufort-Wes, uitgevoer op 9 en 10 November 1948.
 92. WCARS, 3/BFW, Vol. 1/1/1/23, Minutes of a Council Meeting, 18 November 1946; 15 September 1951.
 93. WCARS, 3/BFW, C126, Vol. 1/2/3/1/6, Minutes of Health Committee Meeting, 7 September 1948; 3/BFW, Vol. 1/1/1/24, Minutes of a Council Meeting, 15 September 1951; 16 November 1953; Vol. 1/1/1/25, Minutes of a Council Meeting, 20 July 1954.
 94. *The Courier*, 26 September 1952 (Burgemeester se Oorsig van die Werksaamhede van die Raad vir die Boekjaar geëindig Augustus, 1952); *The Courier*, 21 September 1956 (Burgemeester se Jaarlikse Oorsig). See also *The Courier*, 29 August 1958 (Burgemeester se Jaarlikse Oorsig).
 95. WCARS, 3/BFW, Minutes of a Council Meeting, 17 February 1925; 4 May 1937; 2 September 1937; 7 September 1937; 22 March 1938; Minutes of a Special Council Meeting, 22 August 1939; 3/BFW, C 125, Vol. 1/2/3/1/5, Minutes 28 March 1938; *The Courier*, 6 April 1938 (Rhodes addresses Town Council).

Being plagued regularly by prolonged and devastating droughts the construction of a water-borne sewage system was preceded by the town's long quest for adequate and stable water resources. After 1948, the council successfully lobbied the Department of Irrigation to construct the Gamka Dam in the Nieuweveld Mountains 12,8 km north of Beaufort West. This dam, completed in 1955, has a capacity of 2 454 888.6 m³.⁹⁶ With a more secure water source a water-borne sewage system became a more viable option. Other factors also encouraged a new sewage system. The nightsoil disposal site north of the town became saturated and a danger for the outbreak of epidemics as it could potentially pollute some of the council's boreholes. Furthermore, the council had trouble in recruiting personnel willing to do nightsoil removal.⁹⁷

Postscript

In 1954 and 1963 rate payers also began to lobby for a water-borne sewage system because they were 'getting a little tired of the smell of the night soil lorry'.⁹⁸ Smaller sporadic outbreaks of typhoid, diphtheria and other infectious diseases still occurred from time to time in the black neighbourhoods owing to unhygienic sanitary practices.⁹⁹ Eventually, by 1974, the council secured a loan from the Cape Provincial Administration to implement a water-borne sewage scheme for Beaufort West.¹⁰⁰ Construction was problematic, with factors such as substantial rock excavation causing delays. The scheme was eventually completed as late as April 1979 at a total cost of R2 501 000,¹⁰¹ although the African neighbourhood was connected to the sewage system only in the mid-1980s.¹⁰² With the connection of this neighbourhood to the main sewage system the incidence of water-borne diseases such as typhoid and diphtheria in Beaufort West was severely reduced.

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96. Vivier and Vivier, *Hooyvlakte*, 34-55; WCARS, 3/BFW, Vol. 1/1/1/24, Minutes of a Special Meeting of the Council, 28 July 1950; *The Courier*, 12 May 1950, 5 (Gamka Dam to be Started this Year); *The Courier*, 21 May 1954, 3 (Steady Progress in New Dam).
 97. WCARS, 3/BFW, Vol. 1/1/1/25, Minutes of a Council Meeting, 19 August 1955; 20 September 1955; *The Courier*, 28 September 1948 (Burgemeester se Oorsig); *The Courier*, 30 September 1955 (Raadsvergadering); WCARS, TBK, PAA (AA), Vol. 13/43. ref. A 10/9, Beaufort West Municipality Health Reports, 1931-1970.
 98. *The Courier*, 2 April 1954 (Plea for Sewerage Scheme); *The Courier*, 5 April 1963 (Ons Dorpsdam en Toekomstige Beplanning).
 99. See *The Courier*, 2 August 1958 (Burgemeester se Oorsig); *The Courier*, 19 February 1960 (Sanitation Bad in Old Location); *The Courier*, 20 December 1963 (Health and Slums Committee).
 100. WCARS, 3/BFW, Box 258, R5/1 Riool 1975-1976: Korrespondensie, Stadsklerk – Direkteur van Plaaslike Bestuur, 12 Maart 1976.
 101. WCARS, 3/BFW, R5/1/3, Box 259 Riool, Korrespondensie: Stadsingenieur – Memo aan die Stadsklerk, 18 Oktober 1978; 3/BFW, 5/1/8, Box 261 Riool: Munisipaliteit Beaufort-Wes Riolskema Vorderingverslag, 12 September 1978.
 102. WCARS, 3/BFW, 5/1/15, Box 263 Riool, Korrespondensie: Die Departementshoof – Stadsklerk, 8 January 1986.

Conclusion

Infectious water-borne diseases such as typhoid and diphtheria in Beaufort West had many structural causes. As a town with a large number of poor black residents and white ratepayers, many of whom were further impoverished and undernourished during the Great Depression of the early 1930s,¹⁰³ the municipal council had struggled to provide effective municipal and sanitary services since its inception. Beaufort West experienced constant constraints in the provision of adequate potable water to the town's ever-growing number of residents amidst prolonged droughts. Due to financial constraints many ratepayers relied for a long time on a rudimentary furrow water supply system and until the twentieth century all town dwellers were dependent solely on nightsoil pails for sewage removal. The outcome was the frequent incidence of typhoid epidemics. Ratepayers' propensity to keep animals such as milk cows, goats, horses and sheep in kraals on domestic erven exacerbated insanitary conditions conducive to the outbreak of typhoid and diphtheria. To this could be added over-crowded slum housing and poor hygiene and sanitation practices, especially in the Coloured and African neighbourhoods. In this sense, the sanitation and health history of Beaufort West is very similar to that of many other rural towns in South Africa. It was only after infrastructural sanitary improvements throughout the twentieth century, such as an extension of the water mains to all communities, the chlorination of potable water, anti-typhoid and diphtheria immunisation campaigns and eventually the implementation of the water-borne sewage system, that the outbreak of infectious diseases abated significantly in Beaufort West.

REFERENCES

- Chigudu, S. *The Political Life of an Epidemic: Cholera, Crisis and Citizenship in Zimbabwe*. Cambridge: Cambridge University Press, 2020.
- Crosser, E.M. 'Water Supply and Utilization in Johannesburg, 1886-1905'. MA thesis, University of the Witwatersrand, 1987.
- Davenport, T.R.H. *South Africa a Modern History*, Third edition. Johannesburg: Macmillan, 1987.
- Dyer, J. *Health in Pietermaritzburg (1838-2008): A History of Urbanisation and Disease in an African City*. Pietermaritzburg: The Natal Society Foundation, 2012.
- Echenberg, M. *Africa in the Time of Cholera*. Cambridge: Cambridge University Press, 2011.

103. WCARS, 3/BFW, Vol. 1/1/19, Minutes of a Council Meeting, 13 September 1932; 31 January 1933; 3/BFW, Vol. 1/1/20, Minutes of a Special Council Meeting, 30 October 1933; Minutes of a Council Meeting 7 November 1933; Minutes of a Special Council Meeting, 14 November 1933; Minutes of a Council Meeting, 7 December 1933; Minutes of a Council Meeting, 19 December 1933.

- Epprecht, M. 'The Native Debate in Pietermaritzburg, 1848-1925: Revisiting the "Sanitation Syndrome"'. *The Journal of African History*, 58, 2 (2017), 259-283.
- Erasmus, G.J. 'Navorsingsverslag. Sub-streek: Die Sentrale Karoo, Beaufort-Wes en Omgewing'. Instituut vir Toegepaste Bestuurswetenskappe, Universiteit van Stellenbosch, 1986.
- Grant, D. 'The Politics of Water Supply: The History of Cape Town's Water Supply'. MA thesis, University of Cape Town, 1991.
- Holleran, M. 'Water Qualities and Usage in the Zanjias of Los Angeles, 1781-1904'. *Environmental History*, 27, 3, July (2022), 491-518, accessed 20 December, 2022, <https://deputyprimeminister.gov.mt/en/health-promotion/idpcu/Pages/A%20to%20%7%20of%20infectious%20diseases/diphtheria.aspx>
- Mäki, H. 'Comparing Developments in Water Supply, Sanitation and Environmental Health in Four South African Cities, 1840-1920'. *Historia*, 55, 1 (2010), 90-109.
- Mäki, H. *Water, Sanitation and Health: The Development of the Environmental Services in Four South African Cities, 1840-1920*. Tampere: Juvenes Print, 2008.
- Marais, P. and F. von Dürkheim. 'Beaufort West Reclamation Plant'. *Water and Sanitation in Africa*, 7, 1 (2012), 20-25.
- Marks, S. and N. Andersson. 'Typhus and Social Control: South Africa, 1917-50', in *Disease, Medicine and Empire. Perspectives on Western Medicine and the Experience of European Expansion*, edited by R. Macleod and M. Lewis, 257-283. London: Routledge, 1988.
- Mills, J. 'A Sociological Study of Water and Sanitation-related Diseases as a Socio-political Phenomenon in South Africa'. PhD thesis, University of South Africa, 1987.
- Musemwa, M. 'From Sunshine City to a Landscape of Disaster: The Politics of Water, Sanitation and Disease in Harare, Zimbabwe, 1980-2009'. *Journal of Developing Societies*, 26, 2 (2010), 165-206.
- Parnell, S. 'Creating Racial Privilege: The Origins of South African Public Health and Town Planning Legislation'. *Journal of Southern African Studies*, 19, 3 (1993), 471-479.
- Phatlane, S.N. 'Poverty, Health and Disease in the Era of High Apartheid: South Africa, 1948-1976'. D.Litt. et Phil. thesis, University of South Africa, 2006.
- Phillips, H. 'Black October: The Impact of the Spanish Influenza of 1918 on South Africa'. PhD thesis, University of Cape Town, 1984.
- Phillips, H. *Plague, Pox and Pandemics*. Auckland Park: Jacana Media, 2020.
- Smit, A.P. *Gedenkboek van Nederduitse Gereformeerde Gemeente Beaufort-Wes, 1820-1945*. Kaapstad: Nasionale Pers Beperk, c. 1945.
- Spies, M. 'Cholera-uitbreking kan Landwyd Versprei, Waarsku Kundige', *Die Burger*, 7 June 2023, 7.
- Swanson, M.W. 'The Sanitation Syndrome: Bubonic Plague and Urban Native Policy in the Cape Colony, 1900-1909'. *The Journal of African History*, 18, 3, (1977), 387-410.

- Tempelhoff, J.W.N. “‘Leaving Behind a “Twisted Soul”’: The 2008-2009 Cholera Outbreak in South Africa’. *Journal for Contemporary History*, 34, 3 (2009), 172-189.
- Van Aswegen, H.J. *History of South Africa to 1854*. Pretoria: J.L. van Schaik Academic, 1993.
- Visser, W.P. ‘Between Drought and Deluge: A History of Water Provision to Beaufort West, ca. 1858-1955’. *New Contree*, 85 (2020), 1-21.
- Visser, W.P. ‘Water Shortages in Beaufort West: Lessons Learnt and Applied during the 2009-2011 and 2017-2019 Droughts’. *The Journal of Transdisciplinary Research in Southern Africa*. (2022), available online at <https://doi.org/10.4102/td.v18:1.1118>
- Vivier, W.G.H. and S. Vivier. *Hooyvlakte: Die Verhaal van Beaufort-Wes 1818-1968*. Kaapstad: Nasionale Boekhandel Bpk, 1969.
- Wall, K. ‘Water – Unifier of a City’, in *African Water Histories: Transdisciplinary Discourses*, edited by J.W.N. Tempelhoff, 97-113. Vanderbijlpark: North-West University, 2005.
- Watts, S. *Epidemics and History: Disease, Power and Imperialism*. New Haven: Yale University Press, 1998.
- Zangel, V.A. “‘The Seething Masses”’: Housing and Sanitation in the Lives of Johannesburg’s Poor, 1886-1906’, MA dissertation, North-West University, 2004.