

BACKGROUND INFORMATION DOCUMENT TO NOTICE OF INTENT TO DEVELOP (NID) IN TERMS OF SECTION 38(8) OF THE NATIONAL HERITAGE RESOURCES ACT, 1999 (ACT 25 OF 1999)

CONSTRUCTION OF BYVANGER DAM & ASSOCIATED EARTHWORKS ON PORTIONS OF THE FARMS BUFFELSFONTEIN 36/3 AND VOORBAAT 42/66, LADISMITH DISTRICT AND KANNALAND MUNICIPALITY



ON BEHALF OF: JG Nel Family Trust

SEPTEMBER 2020

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STÉFAN DE KOCK

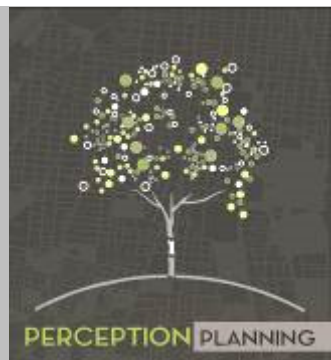
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URBAN & REGIONAL PLANNING- ENVIRONMENTAL PLANNING- HERITAGE IMPACT ASSESSMENT- URBAN DESIGN

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REFERENCES and ACKNOWLEDGEMENTS

1. Cape Town Archives
2. Confluent Environmental (Pty) Ltd, 2020. *Aquatic Assessment In Terms Of Section 24G Of NEMA Application For Construction Of A Dam On Portion 3, Farm 36, Buffelsfontein Near Ladismith, Western Cape.*
3. Fransen, Hans: *The Buildings of the Cape*, Jonathan Ball Publishers. Johannesburg & Cape Town, 2004
4. National Geo-Spatial Information, Department of Rural Development and Land Reform, Mowbray
5. Surveyor General Office
6. Warren, B., 2004. The Department of Surgery: Stellenbosch University. *South African Journal of Science*, 42(3), pp.78, 79

ABBREVIATIONS

1. DEA – National Department of Environmental Affairs
2. HWC – Heritage Western Cape
3. NHRA - National Heritage Resources Act, 1999 (Act 25 of 1999)
4. HIA – Heritage Impact Assessment
5. HWC – Heritage Western Cape
6. PHS – Provincial Heritage Site
7. NGSI – National Geo-Spatial Information, Department of Rural Development and Land Reform, Mowbray

COVER: Collage of contextual panoramic images of the study area and its direct environs (Author)

1. INTRODUCTION

PERCEPTION Planning was appointed by Dr. Magdalena Nel on behalf of the Johannes Gerhardus Nel Family Trust (being the registered owner of Buffelsfontein 36/3) as well as Zila Johannes Tona on behalf of Lofpoort Boerdery (Pty) Ltd (being the registered owner of Voorbaat 42/66), to submit to Heritage Western Cape (HWC) a Notice of Intent to Develop (NID) in terms of Section 38(8) of the National Heritage Resources Act, 1999 (Act 25 of 1999) with relation to construction of a dam and associated earthworks straddling the subject properties. The relevant Power of Attorneys as well as copies of the relevant Title Deeds and S.G Diagrams, are attached as part of **Annexure 1**.

The full descriptions of cadastral land units subject to this application are as follows:

- Portion 3 of the farm Buffelsfontein 36, measuring 261.5207 ha, registered to the Johannes Gerhardus Nel Family Trust, held under Title Deed 164/3/1855 and situated within the jurisdiction of the Ladismith District and Kannaland Municipality, Western Cape;
- Portion 66 of the farm Voorbaat 42, measuring 63.2037 ha, registered to Lofpoort Boerdery (Pty) Ltd, held under Title Deed 9717/1962 and situated within the jurisdiction of the Ladismith District and Kannaland Municipality, Western Cape.

2. BRIEF DESCRIPTION OF STUDY AREA

The subject properties (hereafter referred to as "the study area", are situated ± 21 km west and ± 37 km southeast of the towns of Ladismith and Laingsburg, respectively. Situated ± 4 km southwest of the hamlet Voorbaat, along the southern foothills of the Klein Swartberg mountains (**Figure 1**), the study area forms part of an arid, rugged landscape interspersed by agricultural activity mostly focussed along primary river courses. The study area is traversed by the Groot River, which during rare rainfall events, are fed by numerous tributaries draining from the mountainous landscape directly to the north. Access to the study area is via the R323 and unnamed gravel roads.

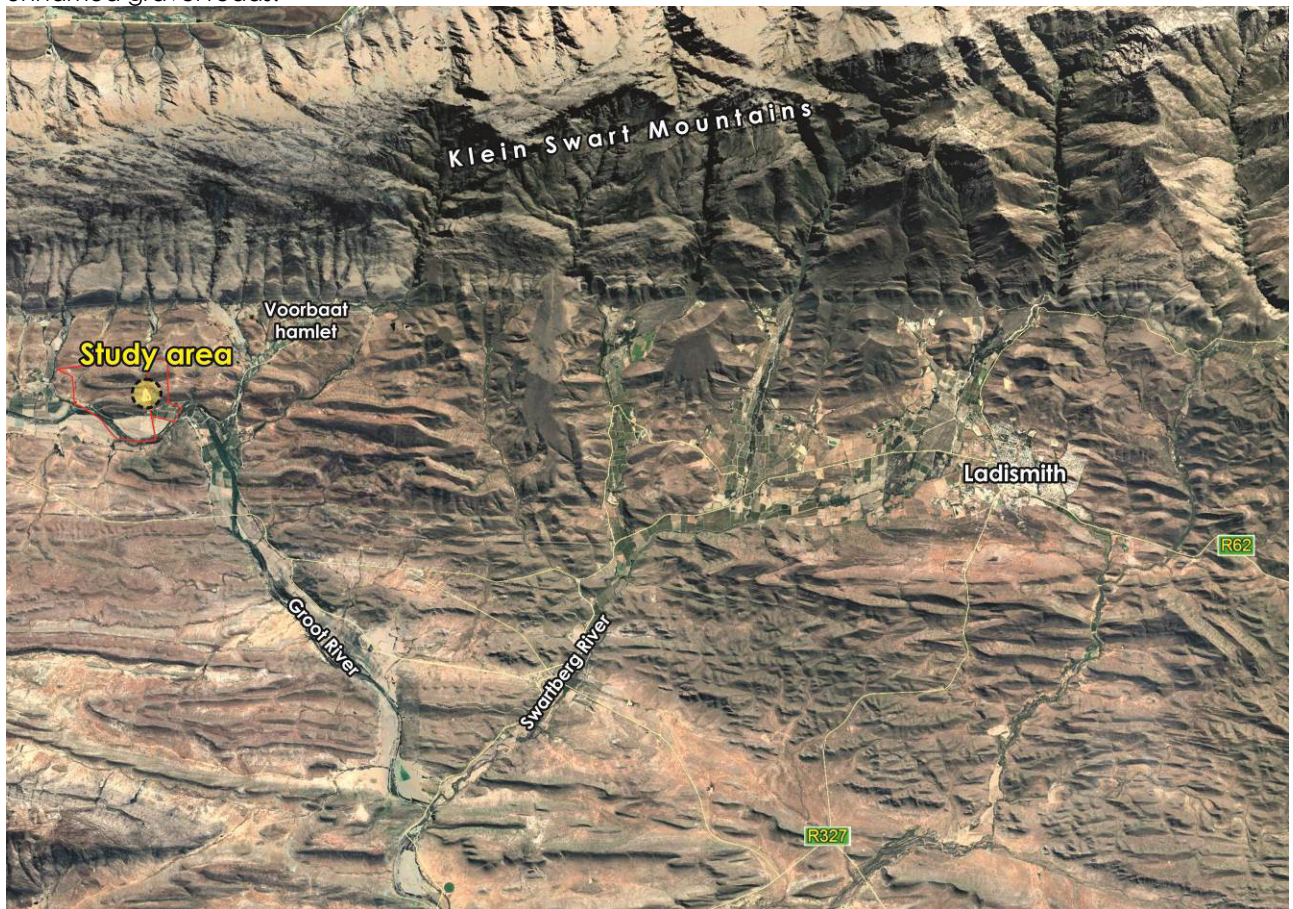


Figure 1: Study area location within regional context (Google Earth, 2020, as edited)

During field work undertaken on 24th June 2020 it was noted that the primary (historic) farmstead and associated outbuildings are situated west of the study area (**Figure 2**). The recently constructed dam is situated within a narrow natural valley directly above/ north of a now dilapidated historic dam. The ± 165 m wide new dam wall is not visible from the nearby main public road, passing the valley ± 350 m directly to the south (**Figure 3**). A single dilapidated structure, presumably a former cottage, is situated ± 280 m south of the

new dam wall. Cultivated fields occur within the river floodplain directly to the east and south of the site. Photographs of the study area and its direct environs are attached to this report as **Annexure 2**.

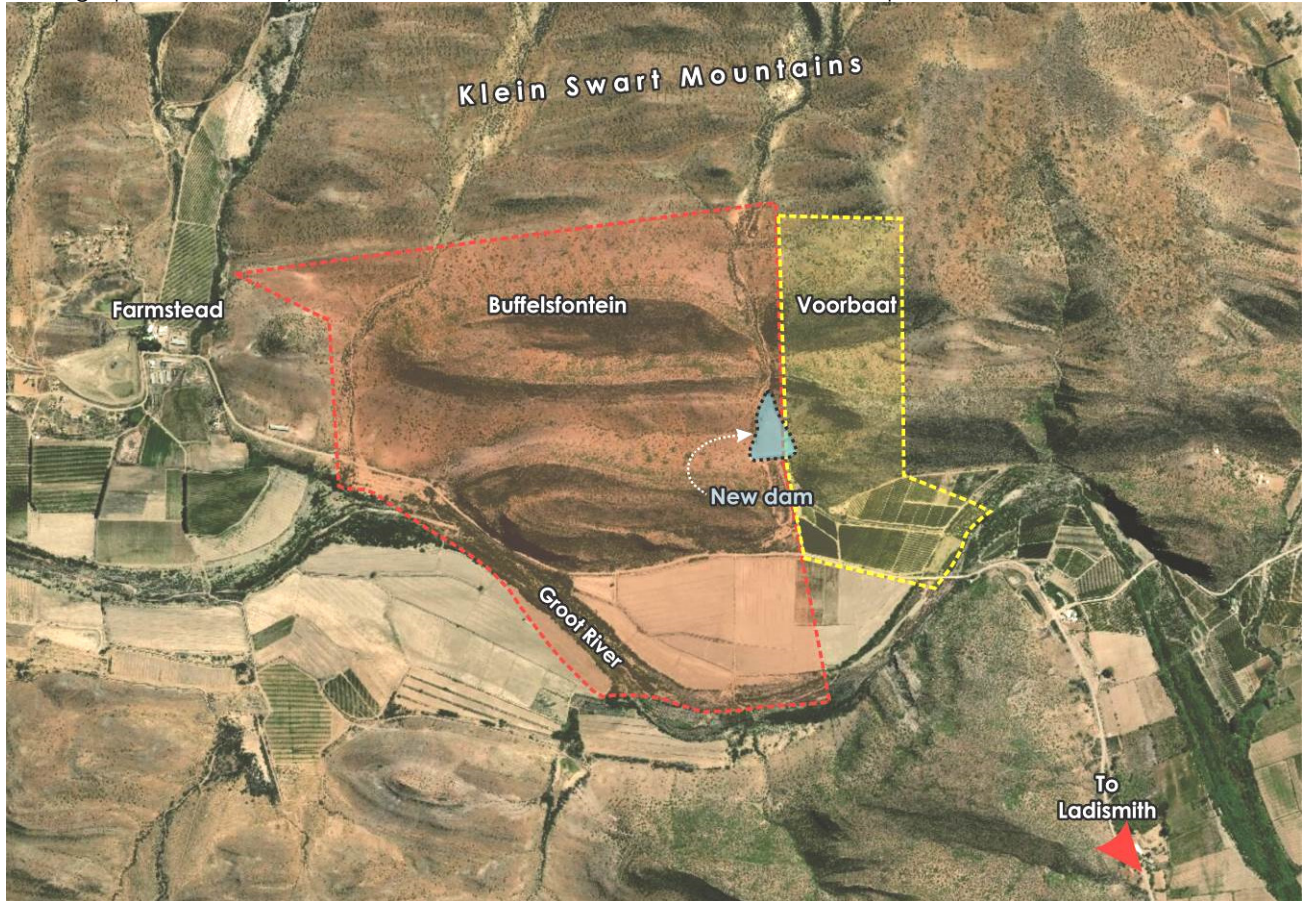


Figure 2: Location of newly-constructed dam in relation to the study area and direct environs (Google Earth, 2020, as edited)

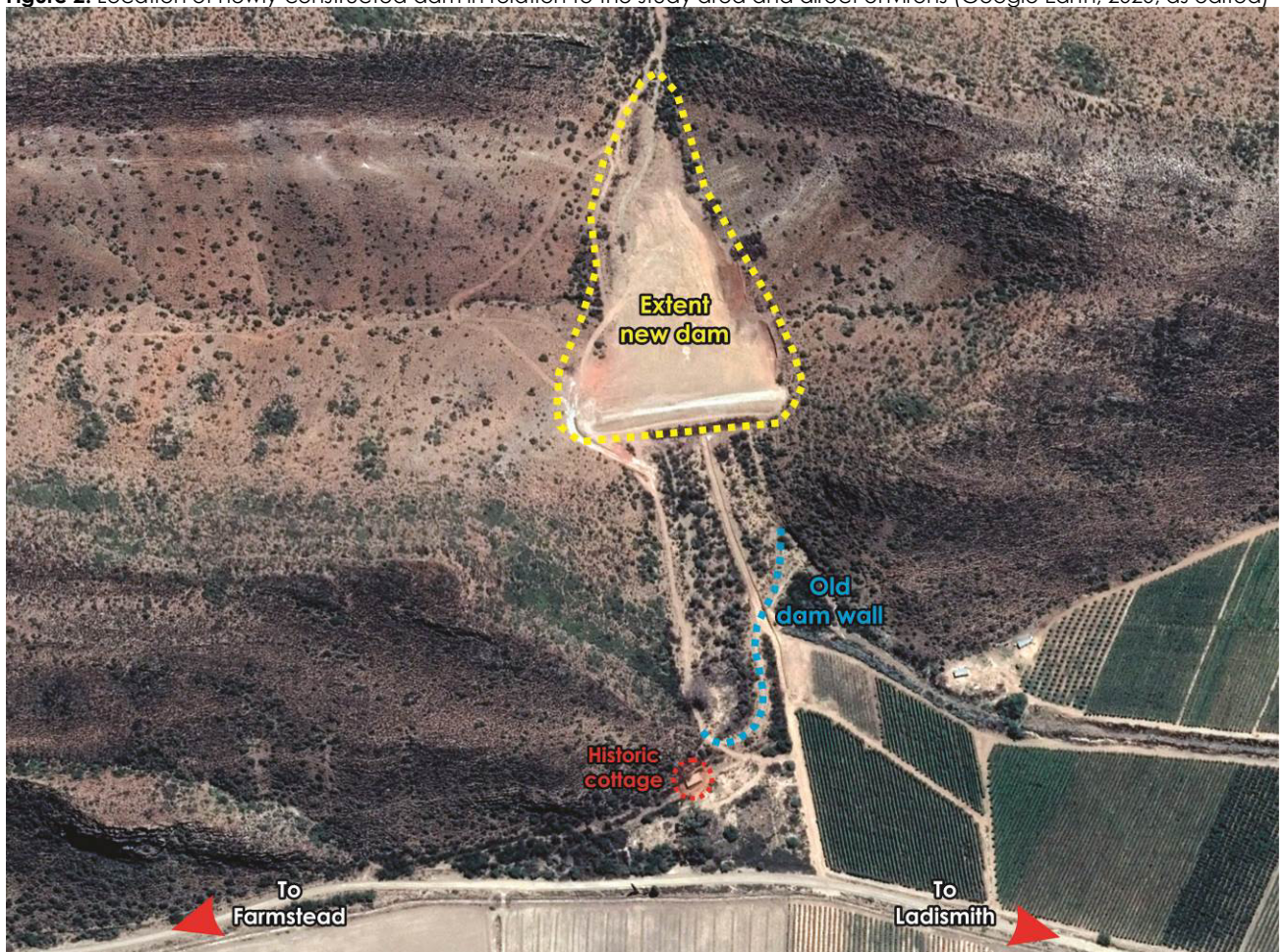


Figure 3: New dam shows within context of old now-dilapidated dam and direct environs (GoogleEarth, 2020, as edited)

3. DESCRIPTION OF WORKS UNDERTAKEN

Works undertaken in relation to construction of the dam are described in the aquatic assessment undertaken as part of the EIA process.

The report indicates that construction of the dam within the watercourse bed, banks and adjoining area, commenced during May 2018. Works included clearing of vegetation and excavation of soil so as to form the dam basin. "Excavated soil was used to build the embankment which is approximately 208 m in length and measures 10.7 m above the lowest contour in the dam basin at 386 m.a.m.s.l. The dam spillway is located to the west of the wall at 394 m.a.m.s.l." (Confluent Environmental (Pty) Ltd, 2020: 6).

The report furthermore describes the following:

"The original path of the watercourse was to the east of the dam wall where it was channelled between orchards to connect with the Groot River. It is unclear how the spillway will connect to the original watercourse (Figure 2). There is a piped outlet midway across the embankment at the base of the dam wall. This leads to a channel which measures approximately 210 m in length, and has been excavated to a point where the water will be used to irrigate orchards. No foreign material appears to have been brought onto the site for the purpose of construction. The Full Supply Volume of the dam would be 149,621.62 m³ with a Full Supply Area of 3.1 hectares. The area currently cleared measures approximately 2.5 ha, and further clearing of vegetation is required.

Prior to construction of the dam there was a much smaller impoundment further downstream which, according to the land-owner, was repeatedly damaged during floods. Remnant parts of the structure (concrete) are still present in the channel, which his highly eroded."

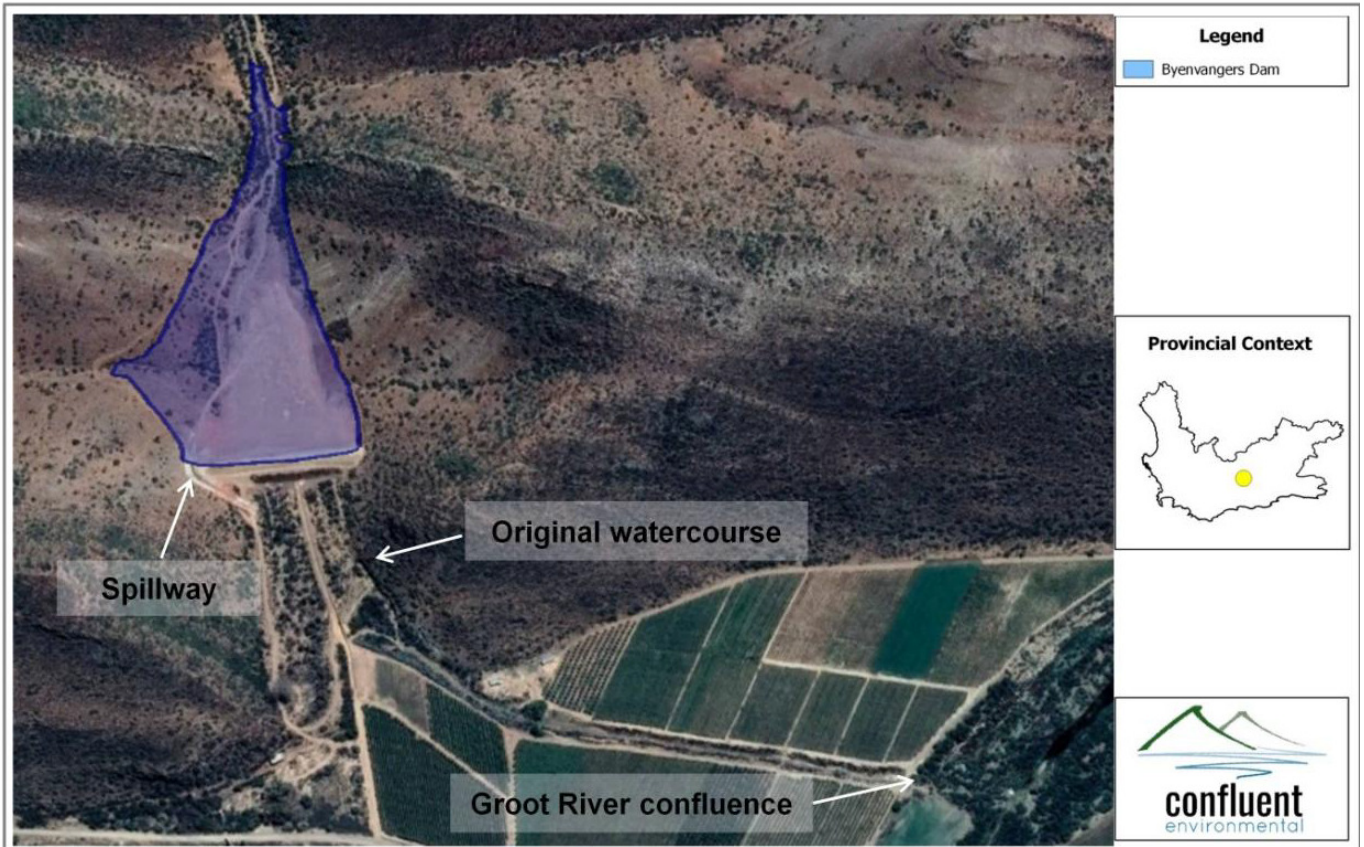


Figure 4: Overview of the newly constructed dam showing uncleared vegetation remaining in the dam basin, as well as the location of the spillway, original path of the watercourse, and confluence with the Groot River (Confluent Environmental (Pty) Ltd, 2020: 9)

4. BASIC HISTORIC BACKGROUND

From a colonial perspective both early loan farms Voorbaat and Buffelsfontein, then situated within the Fieldcornetcy of Groot Swartberg, were occupied long before first being surveyed during the 19th century. The **farm Buffelsfontein**, then part of the Swellendam District, was first surveyed during 1832 and comprised an area of 2,090 morgen (± 1,790 ha)¹. At the time land use of the farm included two cultivated fields (±13,5 morgen and 2,5 morgen, respectively), a "garden" (± 3 morgen), extensive grazing grounds and unutilised areas described on the diagram as being "waste land". The diagram unfortunately does not allude to occupiers/transferees at the time.

¹ SG Diagram 483/1832

In turn the **farm Voorbaat**, recorded as being part of the Riversdale District, was only first surveyed during 1872 and comprised an area of 2,026 morgen 320 square roods ($\pm 1,768 \text{ ha}$)². It is recorded as having transferred to widow G, Strydom during January 1873 as the passing of former owner, her husband PJ Oosthuisen.

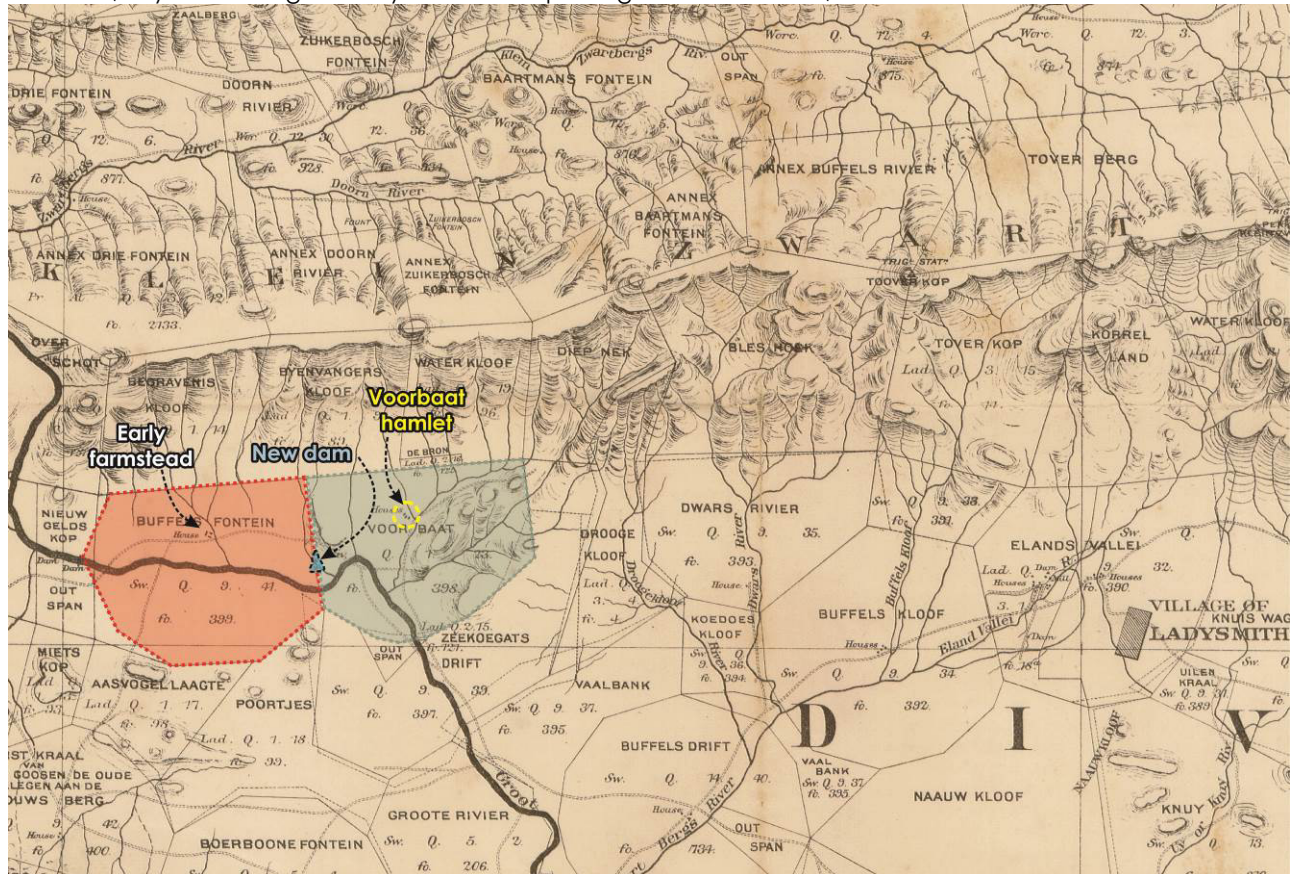


Figure 5: Location of new dam in relation to town of Ladismith and early boundaries of the loan farms Voorbaat and Buffelsfontein as transposed onto (± 1880) SG mapping of the area (NGSI)

Early (1880-1890) mapping records the location of the historic farmstead of the farm Buffelsfontein as well as the hamlet of Voorbaat (**Figure 5**). The study area is approximately 4km southwest of the historic hamlet of Voorbaat as also mentioned by Fransen, H (2004), who described the place as follows:

“an attractively situated hamlet 18km west of Ladismith, providing examples of various vernacular styles of the 19th century. There is a thatched homestead: a single row of rooms with end gables consisting of five convex lobes separated by small steps, with small late casements of c. 1825. Nearby stands a square-fronted farmhouse of two storeys, the upper floor in this case being more than a low attic storeroom; it dates from c. 1870. Several other modest, thatched houses are scattered around”. (Fransen, H, 2004: 494)

While a comprehensive deed search could not be undertaken as part of this study, the following more recent ownership timeline for the farm **Buffelsfontein 36/3** could be obtained via the Deeds Office digital archive:

Transfer Date/ No.	Transferred From:	Transferred To:
T 5148/1973	Unknown	Vanzylsdamme Boerdery (Pty) Ltd
T 63669/2002	Vanzylsdamme Boerdery (Pty) Ltd	Assegaaybosch Ranch (Pty) Ltd
T 88942/2007	Assegaaybosch Ranch (Pty) Ltd	Johannes Gerhardus Nel Familie Trust

During its tenure by the entity Vanzylsdamme Boerdery (Pty) Ltd (1973 – 2002) this farm was owned and developed by Professor Francois Daniel du Toit (“Francie”) van Zijl, who also established a vineyard and produced wine here. Professor van Zijl was a well-known Cape Town-based surgeon, administrator and businessman (Warren, 2004). He served as Head and then Dean of the Surgery of the University of Stellenbosch’s Medical Faculty based at the current Tygerberg Hospital Estate, Parow (TGB HE) until his retired in 1967. The boulevard flanking the western boundary of the TGB HE was named after Prof van Zijl. The subject farm is still referred to as “Vanzylsdamme”.

A more recent ownership timeline for the farm **Voorbaat 42/66**, as recorded on the Deeds Office digital archive, are as follows:

Transfer Date/ No.	Transferred From:	Transferred To:
T 9721/1962	Unknown	JAP de Wit
T 39577/1993	JAP de Wit (Estate)	SP de Wit

² SG Diagram B536/1872

T 88676/1999	SP de Wit	JPA Crafford & EM Crafford
T 880/2004	JPA Crafford & EM Crafford	Odendaal Familie Trust
T 10598/2015	Odendaal Familie Trust	Lofpoort Boerdery (Pty) Ltd

Of broader local contextual significance, the study area is situated approximately 7km southeast of Buffelspoort (Buffels River), which eventually feeds into the Floriskraal dam, situated $\pm 16,5$ km southeast of the Karoo town Laingsburg. On 25th January 1981 the Floriskraal dam wall broke after intensive rainfall causing severe flooding of Laingsburg together with significant loss of life and damage to property.

Basic historical background research did not identify significant heritage-related aspects or themes that would/ have been impacted by the work undertaken. While further detailed archival research would provide further meaningful insight into former use and/or broader understanding of heritage-related themes of the area, such work would not be warranted in this instance.

5. HERITAGE RESOURCES AND ISSUES

Analysis of early aerial imagery contributes to building an understanding of evolution of the landscape through identification of traditional (i.e. Pre-Modern) landscape patterns as read within the context of present landscape character and land use. Landscape patterns evident from the earlier aerial photography of the study area may be described as follows:

- Earliest available (1944) aerial imagery clearly shows an early dam situated just south of the natural valley within which the new dam had been constructed (**Figure 6**). While the image shows the alignment of the farm road, no structures are legible in or around the proximity of the old dam. From here several narrow tracks can be seen meandering northward along the narrow valley;
- Earliest available GoogleEarth© imagery dated 28th February 2003 (**Figure 7**) clearly shows the outline of the early (1944) dam the eastern wall of which had been extended to enlarge the original structure in an attempt to increase water storage capacity as a responsive to rapidly changing environmental conditions within the region;
- Earthworks associated with construction of the new dam is first noticeable on GoogleEarth© imagery dated 14th March 2018.

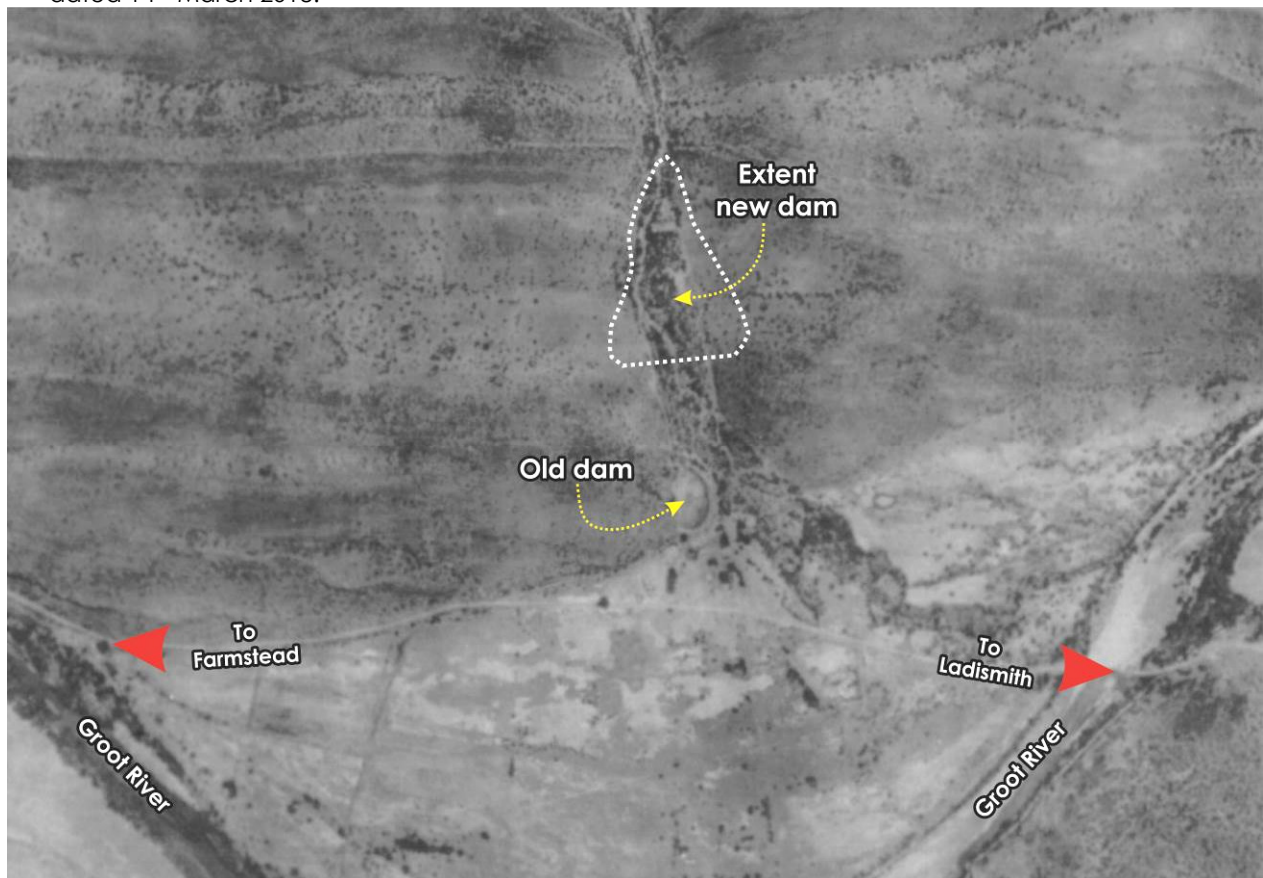


Figure 6: Location of new dam as transposed onto 1944 aerial imagery for the area. Note location and outline of historic dam directly south of new dam (Aerial survey 53, Flight Strip 11, Image 2519, NGS)

During interviews with local farmers³ it was noted that rapidly-changing weather patterns resulted in unpredictable rainfall characterised by an increase in storms, generally resulting in higher rainfall over shorter

³ Pers.comm. anonymous, 24th June 2020

periods of time. This in turn causes an increase in the volumes and velocity of flows consequently leading to flood events. During field work the author noted the dilapidated state of the old dam, which reportedly had been damaged repeatedly through said flood events thus resulting in loss of valuable topsoil and damaging crops directly downstream.

It is understood that no materials were transported to the site to be used for construction of the new dam. During field work the author walked the edges of the newly-constructed dam and followed this up by walking 1.5m transects through the excavated interior of said dam – no archaeological occurrences were noted. Of interest it was furthermore noted that the south-facing slope of the dam wall had partly been re-vegetated through planting of indigenous vegetation using e.g. spekboom (*Portulacaria afra*) and sourfig (*Carpobrotus edulis*). According to SAHRIS Paleo-sensitivity mapping the property is situated within an area earmarked as being of “Moderate” palaeontological sensitivity where, “desktop study is required”⁴. Given the fact that construction works had already been concluded the value that such study could bring is uncertain.

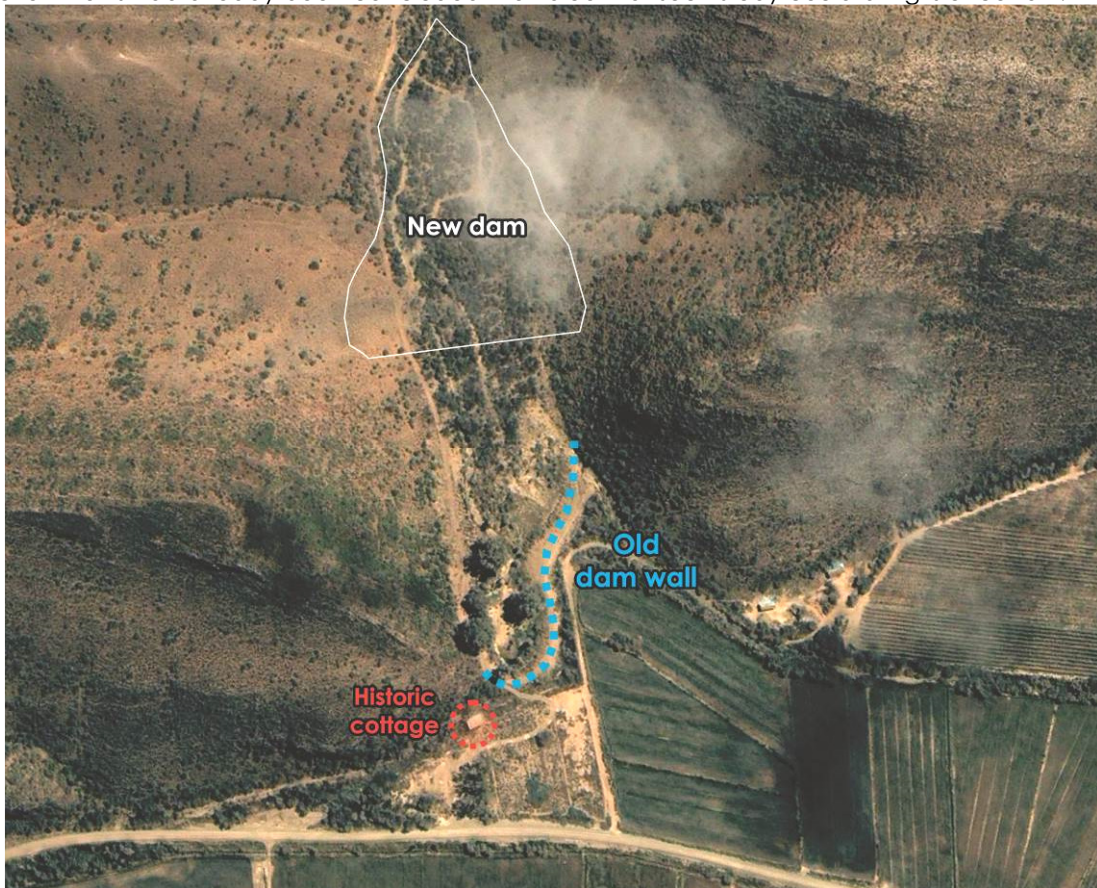


Figure 7: Location of new dam as transposed onto 2003 aerial imagery for the area. (GoogleEarth, 2020, as edited)

While certainly several historic structures and socio-historic themes, respectively of local architectural, aesthetic and historic cultural significance were identified on the subject farms none of these occur within close proximity to the newly-constructed dam, nor were any of said heritage resources impacted through construction of the new dam.

6. RECOMMENDATION

Having regard to the findings following from above assessment, it is our view that the proposal would not impact on any heritage resource of cultural significance and that no further heritage-related studies would be warranted in this instance.

PERCEPTION Planning

4th September 2020

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⁴ <https://sahris.sahra.org.za/map/palaeo>, accessed 16th June 2020