

**HERITAGE IMPACT ASSESSMENT
PROPOSED DEVELOPMENT OF A SCHOOL AND HOSPITAL ON A PORTION
OF THE REMAINDER OF THE FARM VAALEVALLEY 219 HARTENBOS,
MOSSEL BAY LOCAL MUNICIPALITY,
WESTERN CAPE**

Assessment conducted under Section 38 (3) of the National Heritage Resource Act
(No. 25 of 1999)

HWC CASE 27254

Prepared for:

SHARPLES ENVIRONMENTAL SERVICES

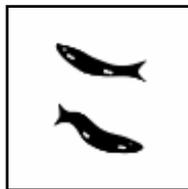
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Applicant:

Hartland Lifestyle Estate (Pty) Ltd

By



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**FEBRUARY
2026**

Declaration of Independence

HERITAGE IMPACT ASSESSMENT PROPOSED DEVELOPMENT OF A SCHOOL AND HOSPITAL ON A PORTION OF THE REMAINDER OF THE FARM VAALEVALLEY 219 HARTENBOS, MOSSEL BAY LOCAL MUNICIPALITY, WESTERN CAPE

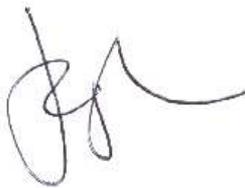
HWC CASE 27254

This report has been compiled by Jonathan Kaplan, Director of the Agency for Cultural Resource Management, an independent Heritage Practitioner registered with the Association of Southern African Professional Archaeologists (ASAPA), CRM Membership No. 64.

The views expressed in this report are entirely those of the author and no other interest was displayed during the decision-making process for the Project.

I further declare that I: **Jonathan Kaplan**

- act/ed as the independent specialist in the compilation of the above report.
- regard the information contained in this report as it relates to my specialist input/study to be true and correct, and
- do not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2014 and any specific environmental management Act.
- have any personal stake in the proposed activity proceeding.
- have disclosed to the EAP any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the NEMA, the Environmental Impact Assessment Regulations, 2014 and any specific environmental management act.
- have provided the EAP with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not; and
- am aware that a false declaration is an offence in terms of regulation 48 of the 2014 NEMA EIA Regulations.



Signature of the specialist

Date: 28 February 2026

Executive Summary

1. Site name

Proposed School and Hospital Development on Remainder of the Farm Vaalevalley 219
Hartenbos, Mossel Bay Local Municipality, Western Cape

2. Location

Hartenbos off the N2, near Mossel Bay (Figures 1 & 2)

3. GPS Co-ordinates

S 34° 5'58.01" E 22° 6'58.83

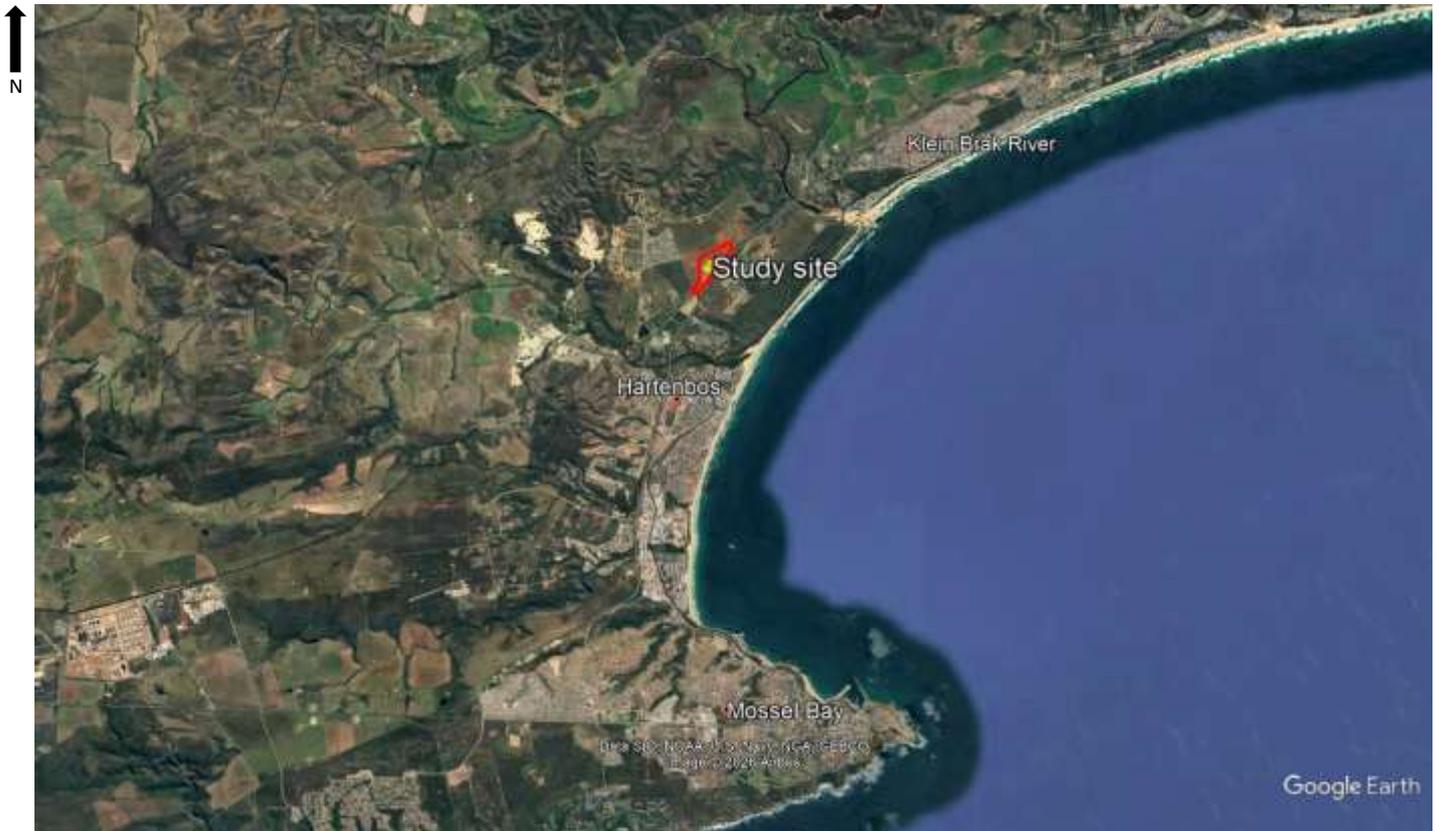


Figure 1. Google aerial satellite map indicating the location of the study site (yellow pin) near Mossel Bay (regional context)



Figure 2. Google Earth Satellite Map of the study site (red polygon) indicating the local context of the proposed development

2. The development proposal

The proposal entails development of a School, Student Accommodation, Sports Fields, Club House, Hospital, and Parking facilities. The development area comprises mostly old farmland and is entirely transformed from its natural state. According to the Mossel Bay Local Municipality's Spatial Development Framework (MSDF 2022), the development is located on the fringe of the Urban Edge of the municipality. The size of the development footprint is about 28.5ha.

The development will be divided into three portions:

- The School

The School will be divided into two areas:

1. The first area will be a Secondary School inclusive of a School Hostel, an Administrative Building and Main Hall. This portion of the development will also include a Club House, Rugby Fields, and Athletics Track.

2. The second area will comprise the Tertiary Education Centre and Student Hostel Accommodation, which will also include Action Sports Fields and Courts.

- The Hospital

3. The third section of the development comprises a Hospital and infrastructure including parking and security. This section will also include future Staff Accommodation and a Helicopter Landing Pad.

Heritage Impact Assessment Proposed Secondary School, Tertiary School & Hospital Development on Farm 219 Hartland Lifestyle Estate, near Mossel Bay

The main access road associated with the development will be approximately 800m in length.

Engineering services, including internal streets, lighting, water, sewerage, electricity, and solid waste will be provided by the Applicant, but bulk services will be maintained and serviced by the Mossel Bay Local Municipality.

No additional bulk water infrastructure is required for the development, as there is an existing bulk water supply pipeline from the Jakkalskop Reservoir along the southern boundary of the proposed development, along which the project will tie into.

A Site Layout Plan is presented in Figure 4 below.

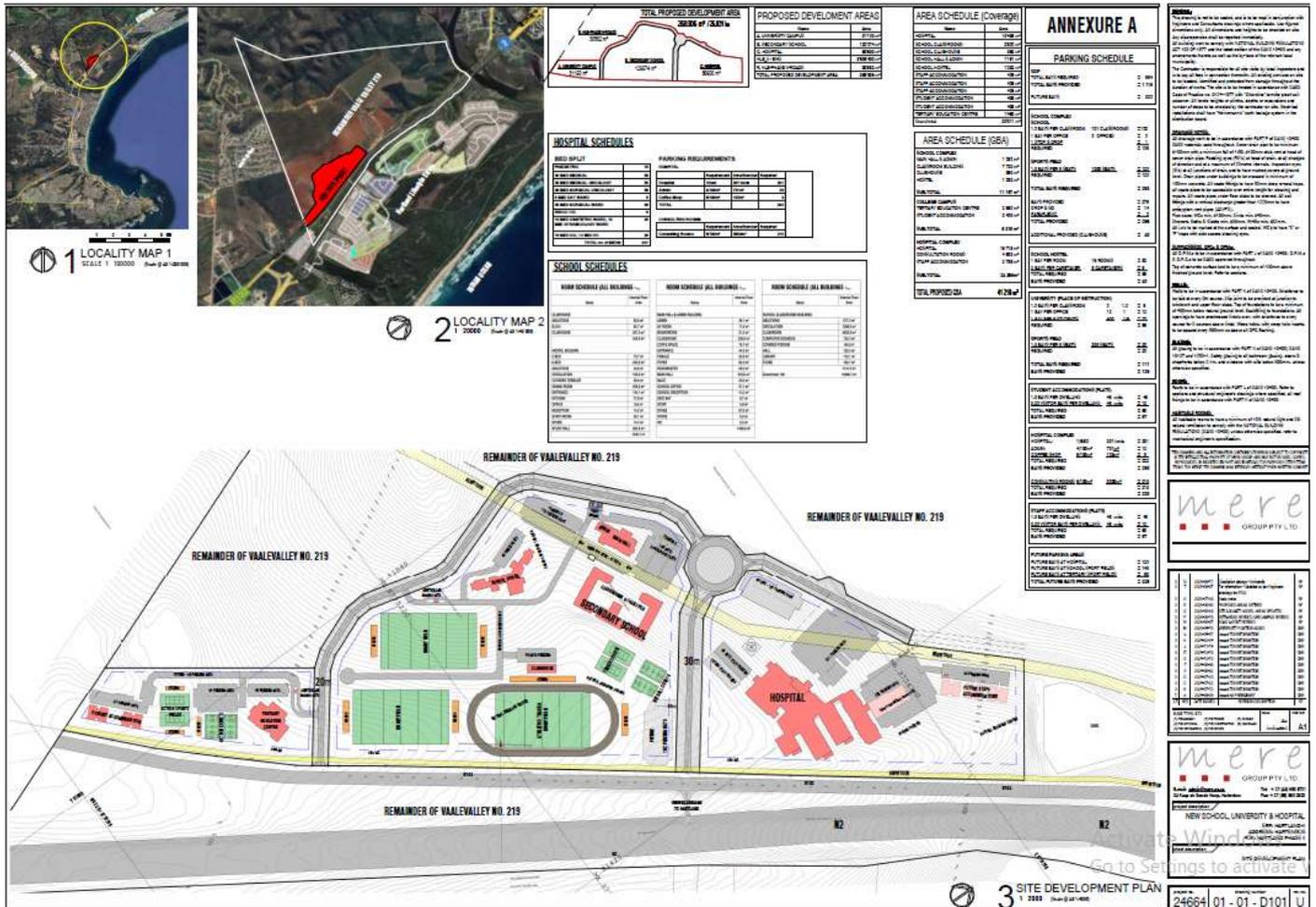


Figure 4. Proposed Site Layout Plan

A Heritage Impact Assessment (HIA) comprising an Archaeological Impact Assessment (AIA) was requested by Heritage Western Cape (HWC), following the submission of a Notice of Intent to Develop (NID).

ACRM was later appointed to conduct the AIA and to write up the integrated HIA report, which includes comments from the Mossel Bay local municipality, registered conservation bodies and Interested and Affected Parties (I&APs).

Sharples Environmental Services cc is the independent environmental assessment practitioner (EAP) responsible for facilitating environmental authorisation for the project.

An Environmental Basic Assessment (BA) process will be followed in this application.

3. Aim of the study

The overall purpose of the study is to identify and map archaeological heritage resources that may be impacted by the development proposal and to recommend any mitigation action.

4. Constraints and limitations

There were no constraints or limitations associated with the study. Access to the study areas was unrestricted and surface visibility was good.

5. Identification of potential risks

Early Stone Age resources will be impacted by the development, but the remains have been severely compromised by historical agriculture. 1939 aerial photographs show that Farm 219 was under active agriculture for nearly 90 years.

6. Heritage resources

6.1 Archaeology

Despite the highly transformed landscape, large numbers of Stone Age resources were recorded during a field assessment conducted on the 30th of January 2026.

More than 95% of the resources identified comprised Early Stone Age (ESA) implements, while a small number of Middle Stone Age (MSA) lithics were also recorded. No Later Stone Age (LSA) tools or any organic remains such as pottery or ostrich eggshell were found. All of the stone artefacts are in locally available quartzite, struck from rounded, abraded, colluvial cortex cobbles.

While a few isolated tools/lithics and a few ephemeral scatters of implements were recorded in the actively ploughed fields, several quite distinct, scatters of tools were also recorded, one of which was encountered outside the development footprint. These high-density scatters were recorded on elevated, ploughed/ripped, hill slopes which are covered in widely dispersed quartzite cobbles. Many ESA pieces were counted among these scatters of unworked stone, comprising mostly cortex chunks, broken and flaked chunks/minimal cores, a few unmodified and retouched flakes, and some round cores. A Large Cutting Tool (LCT), a cleaver, and six complete, incomplete and broken Acheulean handaxes were also recorded on the cobble, terraces. One handaxe blank was also found.

Indications are that these dispersed concentrations of unworked stone, brought to the surface by ploughing, were probably targeted by ESA hominins as a source of raw material for making stone tools. The majority of the remains comprised broken chunks, cortex pieces and flakes, suggesting that most of the pieces comprise flake debris, while complete tools such as handaxes, LCTS, choppers and cleavers for example were probably removed from the quarry/workshop site, by the tool makers. The presence of a handaxe blank further supports this argument.

A small number of Middle Stone Age (MSA) flakes were also recorded on the cobble terrace, but no formal tools such as points, or scrapers were encountered.

Grading

The highly transformed context in which they were found means that the archaeological resources have been graded as having Low (Grade 3C) archaeological significance and are considered Not Conservation Worthy (NCW).

6.2 Palaeontology

According to consulting palaeontologist, Marion Bamford (2026) the proposed development site lies on the 'potentially very highly' sensitive Enon Formation (Uitenhage Group) 'according to SAHRIS only'. The Enon Formation contains a few disarticulated and abraded bone fragments of unknown vertebrates, and a few pieces of charred fossil wood. The latter, however, could be derived from re-worked Cape Supergroup sediments. The fragments are insufficient to date the Enon Formation and probably younger, indeterminate sediments are lumped in the Enon Formation in the geological maps.

Bamford (2026) has shown, that the Enon formation is often used as a catchall for Cretaceous and younger sediments that are not sufficiently distinct enough to assign to any other formation. The lithology includes cobbles, conglomerates, sandstones, and transported debris. 'Hence it is unlikely that any fossils of scientific value would be recovered during the Construction Phase of the development'.

6.3 Built Environment

There are no farm buildings, dwellings, or structures within the proposed development area. Therefore, no direct impacts to the built environment will occur.

6.4 Cultural landscape

Historically, at least for the last 80 odd years, the Cultural Landscape was dominated by agriculture. However, while agriculture is still a characteristic feature of the surrounding landscape, a strong residential component has come to define the evolving Cultural Landscape, where several housing/estate developments have emerged in recent years (examples include the Hartlands Lifestyle Estate directly opposite the development site). A large shopping mall (Garden Walk Mall) is also currently being built less than a kilometer south of the proposed development. The rapidly expanding suburbs of Hartenbos and Tergniet are also visible in the changing rural agricultural landscape, where residential and commercial development will in the near future come to dominate the Cultural Landscape.

6.5 Graves

No graves or typical grave features were, encountered during the field assessment.

7. Comments

Comments will be included in the Final HIA report presented to Heritage Western Cape.

8. Anticipated Impact

Archaeological resources will be impacted by the proposed Hartlands School and Hospital Development, but nearly 90 years of active agriculture has severely compromised the integrity of the archaeological landscape.

Therefore there are no objections, on archaeological ground, to the development proceeding.

Regarding palaeontological heritage, the geological structures suggest that the rocks are from mixed sources and have been transported, so do not contain recognisable or scientifically useful fossils (Bamford 2026). Furthermore, the material to be excavated is likely to be mostly sand and this does not preserve significant fossils.

9. Conclusion

Indications are that the proposed Hartlands School and Hospital Development on Re Farm Vaalevalley 219 near Mossel Bay does not pose a significant threat to local archaeological heritage resources. Relatively large numbers of ESA lithics (mostly flake debris) were recorded among extensive scatters of abraded colluvial gravels, but nearly 90 years of active agriculture have compromised the context in which the remains were found. It is argued that the scatter of stone implements in the development area may be remnants of an ESA quarry or workshop site, where ESA hominins sourced raw materials (quartzite cobbles) for making stone tools, where most of the finished implements such as handaxes, LCTs and cleavers were removed to a home base further away. The above resources all occur in a severely transformed context and have been graded as having Low (Grade 3C) archaeological significance and are considered to be Not Conservation Worthy (NCW).

Since there is a small chance that fossils from the Enon Formation may be disturbed a Fossil Chance Find Protocol has been added to this report. However, taking account of the defined criteria, 'the potential impact to fossil heritage resources is low' (Bamford 2026)

10. Recommendations:

1. No archaeological mitigation is required prior to construction excavations commencing.
2. No archaeological monitoring is required during the Construction Phase.
3. In the unlikely that human remains are uncovered during construction activities; these must be immediately reported to the archaeologist (J Kaplan 082 321 0172) who will inform Heritage Western Cape. Burials must not be disturbed or removed until inspected by a professional archaeologist.
4. Since there is a small chance that fossils may occur below the soil cover in the conglomerate and sands of the Enon Formation (Uitenhage Group) the Fossil Chance Find Protocol should be added to the EMP. If fossils are found by the environmental officer, or other responsible person once excavations have commenced, then they should be rescued and a palaeontologist called to assess and collect a representative sample. The impact on the palaeontological heritage would be low, as far as the palaeontology is concerned, so the project should be authorised.

The above recommendations must be included in the Environmental Management Plan (EMP) for the development and must be monitored by the Environmental Control Officer (ECO).

11. Author notes

Kaplan, J. 2026. Heritage Impact Assessment, proposed near Mossel Bay, Western Cape. Report prepared for Sharples Environmental Services. ACRM Cape Town

Bamford, M. 2026. Palaeontological Impact Assessment for the rezoning and development of a school and hospital on RE/464, George, for Hartland Lifestyle Estate, Western Cape Province. Report prepared for ACRM. Marion Bamford, Wits University.

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1. INTRODUCTION

ACRM was, appointed by Sharples Environmental Services (SES) on behalf of Hartland Lifestyle Estate Pty (Ltd) to conduct a Heritage Impact Assessment (HIA) for a proposed School and Hospital development on Remainder of the Farm Vaalevalley 219 located midway between Hartenbos and Klein Brak River near Mossel Bay in the Western Cape (Figures 1 & 2).

The development area comprises mostly old farmland and is entirely transformed from its natural state. Barely any natural vegetation remains on the site. According to the Mossel Bay Local Municipality's Spatial Development Framework (MSDF 2022), the development is located on the fringe of the Urban Edge of the municipality.

A Heritage Impact Assessment (HIA) comprising an Archaeological Impact Assessment (AIA) was requested by Heritage Western Cape (HWC), following the submission of a Notice of Intent to Develop (NID).

ACRM was appointed to conduct the AIA and to write up the integrated HIA report, which includes comments from the Mossel Bay local municipality, registered conservation bodies and Interested and Affected Parties (I&APs).

Sharples Environmental Services cc is the independent environmental assessment practitioner (EAP) responsible for facilitating environmental authorisation for the project.

An Environmental Basic Assessment (BA) process will be followed in this application.

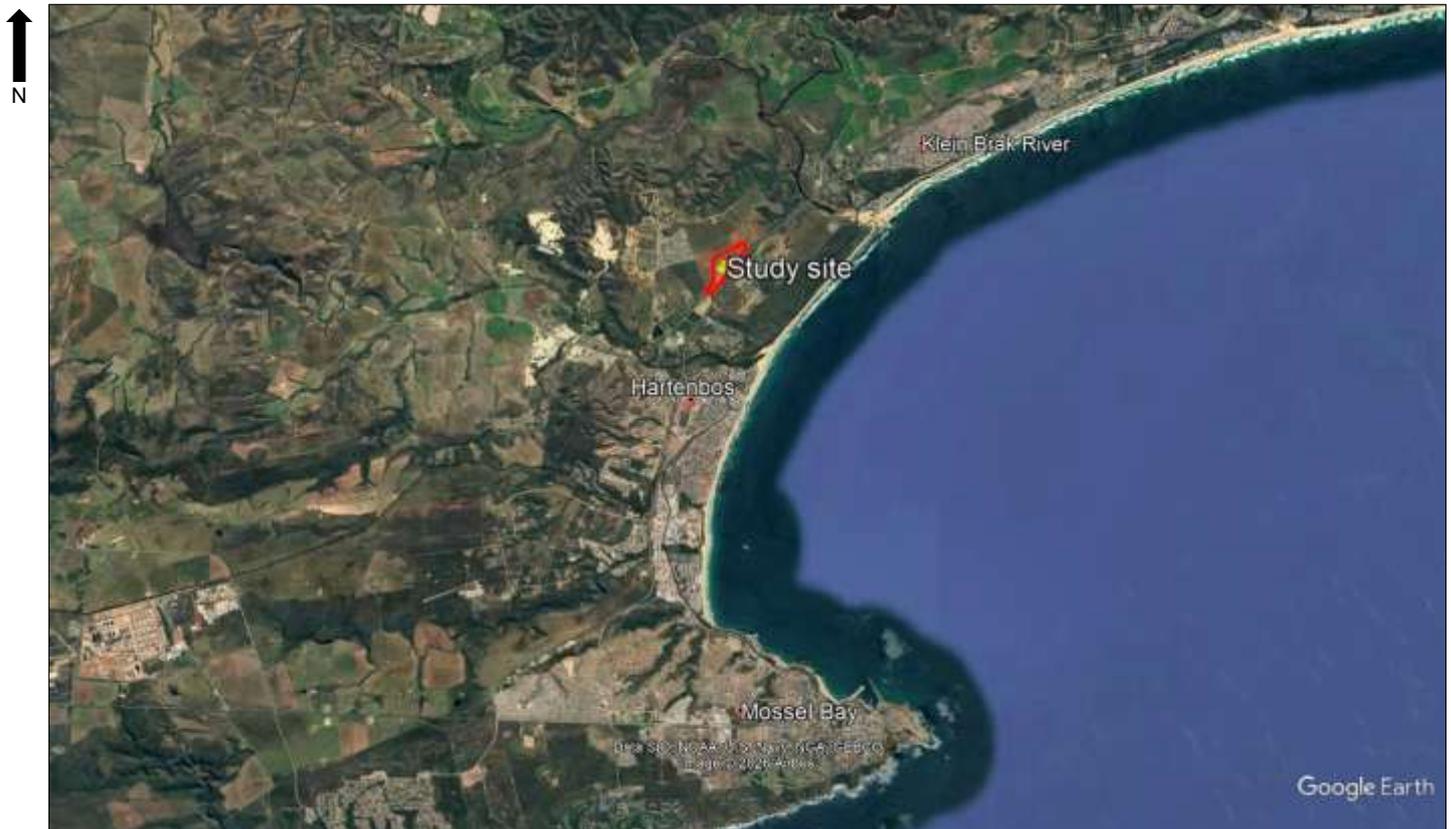


Figure 1. Google aerial satellite map indicating the location of the study site near Mossel Bay (regional context)

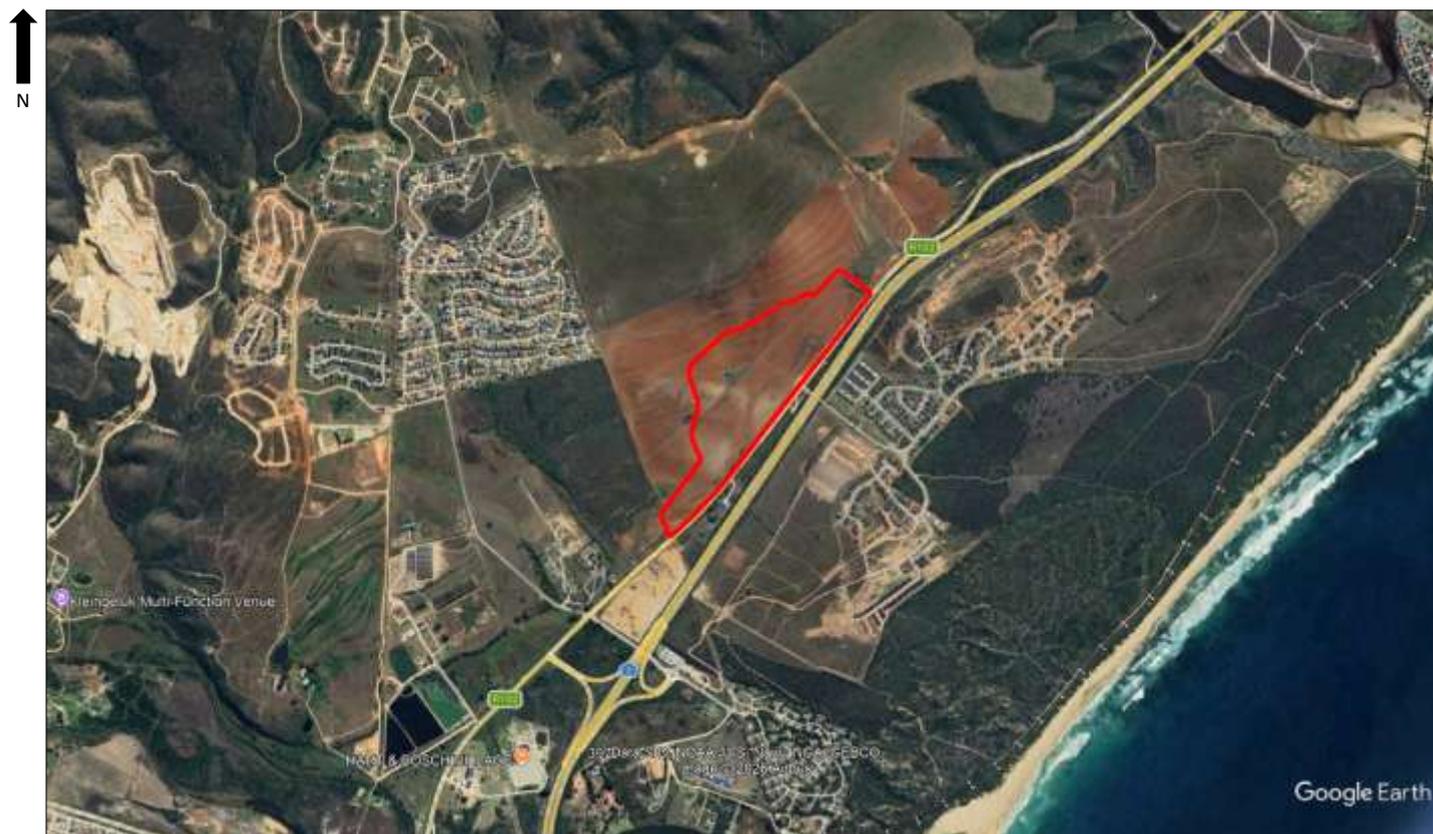


Figure 2. Google Earth Satellite Map of the study site (red polygon) indicating the local context of the proposed development

2. THE DEVELOPMENT PROPOSAL

The proposal entails development of a School, Student Accommodation, Sports Fields, Club House, Hospital, and Parking facilities.

The size of the development footprint is about 28.5ha including associated infrastructure.

The development will be divided into three portions:

- The School

The School will be divided into two areas:

1. The first will be a Secondary School inclusive of a School hostel, an Administrative Building and Main Hall. This portion of the development will also house the Club House, three Rugby Fields and Athletics Track. The school will be large enough to accommodate approximately 2600 students.

2. The second area will comprise the Tertiary Education Centre that will be able to accommodate approximately 450 students, and Student Hostel Accommodation that will accommodate about 136 students, which will also house the Action Sports Fields, and Courts.

▪ The Hospital

4. The third section of the development comprises the proposed Hospital and associated infrastructure such as parking and security. This will also include the future Staff Accommodation and a Helicopter Landing Pad.

The main access road associated with the proposed development will be approximately 800m in length.

Engineering services, including internal streets, water, sewer, electricity, and solid waste will be provided by the Applicant, but bulk services will be maintained and serviced by the Mossel Bay Local Municipality. No additional bulk water infrastructure is required for the development, as there is an existing bulk water supply pipeline from the Jakkalskop Reservoir along the southern boundary of the proposed development, along which the project will tie into.

A Site Layout Plan is presented in Figure 4.



Figure 3. Proposed Site Layout Plan

3. HERITAGE LEGISLATION

The National Heritage Resources Act (NHRA No. 25 of 1999) protects archaeological and palaeontological sites and materials, as well as graves/cemeteries, battlefield sites and buildings, structures and features over 60 years old. It is an offence to destroy, damage, excavate, alter or remove from its original place, or collect, any archaeological, palaeontological and historical material or object, without a permit issued by the SAHRA or applicable Provincial Heritage Resources Agency, viz. Heritage Western Cape (HWC).

Notification of HWC is required for proposed developments exceeding certain dimensions (Sect. 38), upon which they will decide whether or not the development must be assessed for heritage impacts (an HIA) that may include an assessment of archaeological (a AIA) or palaeontological heritage (a PIA).

4. TERMS OF REFERENCE

The terms of reference for the archaeological study were to:

1. Identify any archaeological heritage resources that might be impacted by the development proposal,
2. Assess the sensitivity of any archaeological resources on the development site, and
3. Identify measures to protect any valuable archaeological resources that may exist on the development site.

5. STUDY SITE AND DESCRIPTION OF THE RECEIVING ENVIRONMENT

The proposed development is located on the Farm Vaalevalley No. 219, about midway between the Garden Route towns of Klein Brak River and Hartenbos, opposite the Hartlands Lifestyle Estate development, off the N2, near Mossel Bay. The farm measures about 360ha in extent, but the size of the development footprint is 28.5ha including associated infrastructure.

The proposed development is situated directly alongside the R102 and comprises mostly old farmland. The site is entirely transformed from its natural state and barely any natural vegetation remains on the site, where only a few small patches occur in places (Figures 4-10). 1939 historical aerial photography (Figure 11) indicates that the site was actively cultivated for nearly 90 years.

A small site camp, and two small farm dams (one located on the southern boundary & another on the northern boundary of the proposed development area), border the site. Existing infrastructure comprises a pump house, gravel farm roads and fencing. There are no significant landscape features on the property.

Surrounding landuse is mostly residential (Hartlands Lifestyle Estate, Outeniquasbosch Wildlife Village, Hartenbos, Tergniet & Monte Christo), ongoing construction of the Garden Walk Mall, a Nursery, Waste Water Treatment Works, Fair View Farm, Transand Kleingeluk Quarry, agricultural, small holdings, and roads (R102 and N2).



Figure 4. View facing southeast with Hartland Lifestyle Estate north of the N2 in the far distance



Figure 5. View facing north east taken from alongside the R104



Figure 6. View facing north west. The R104 is to the left of the plate



Figure 7. View facing south, looking onto the Hartlands Lifestyle Estate north of the N2



Figure 8. View facing south from the lower fields, and Hartenbos village in the far distance & Hartland Lifestyle Estate to the left of the plate.



Figure 9. View facing south from the upper fields, and Hartenbos village in the far distance



Figure 10. View facing southeast



Figure 11. 1939. Aerial photograph indicating that the study area (red polygon) was already under active agricultural production

6. STUDY APPROACH

6.1 Method

The overall purpose of the study is to identify and map archaeological heritage resources that may be impacted by the development proposal and to recommend any mitigation action.

A field assessment was conducted by ACRM on 30 January 2026.

Archaeological resources recorded during the study were mapped using a Garmin Oregon 700 handheld GPS device set on the map datum WGS 84.

A desktop study was carried out to assess the heritage context surrounding the proposed development. The literature survey included mostly unpublished commercial CRM reports.

The heritage consultant also engaged with archaeologist Dr Peter Nilssen who is currently conducting archaeological monitoring at the Hartlands Lifestyle Estate opposite the proposed development area. Dr Nilssen has more than 20 years, experience working as a CRM practitioner in the Mossel Bay area and has an intimate knowledge of the archaeology of the region.

6.2 Constraints and limitations

There were no constraints or limitations associated with the study. Access to the study areas was unrestricted and surface visibility was good.

6.3 Identification of potential risks

Early Stone Age resources will be impacted by the development, but the remains have been severely compromised by historical agriculture. 1939 aerial photographs show that Farm 219 was under active agriculture for nearly 90 years.

6.4. Archaeological context

Later Stone Age (LSA) shell middens have been recorded near the mouths of the Klein Brak, Groot Brak and Hartenbos Rivers (Kaplan 1993). The absence of a rocky shoreline along this sandy stretch of coastline, (fringe reefs occur at lower tides) however, may account for small traces where shellfish (possibly oysters) may have been harvested by LSA hunter-gatherer-fishers. By comparison, large numbers of shell middens, scatters of stone tools, pottery and ostrich eggshell and caves with archaeological deposits have been recorded south of Mossel Bay, which is characterised by a high-energy shoreline, with steep coastal cliffs, rocky shoreline, and a mobile back dune area (Kaplan 1993, 1994, 1997, 1998a, b, 2004, 2005a).

Surrounding the development, Early Stone Age (ESA) and Middle Stone Age (MSA) tools have been recorded at Outeniquasbosch and Monte Christo Estates (Kaplan 2007), while large numbers of ESA resources, including cores, Cutting Tools, and handaxes have been recorded at the Transand Kleingeluk Quarry (Kaplan 2022, 2009) about 2.5kms north west of the proposed development. These included the remains of a large Early Stone Age quarry site where distinct activity areas were also identified (Kaplan 2009). ESA and MSA resources were also recorded by Nilssen (2005b, c) at Hartenbos Heuwels and Kwanonqaba, while ESA resources were recorded by Kaplan (2021) inside the urban edge at Hartenbos.

Nilssen (2005d) also recorded relatively large numbers of ESA and MSA resources, as well as LSA pastoralist pottery on the hill slopes and undulating dunes south of the N2 between the Hartenbos and Klein Brak Rivers during an HIA for the Hartlands Lifestyle Estate

Development opposite the proposed School and Hospital development. Historical ruins built features and graves were also recorded by Nilssen (2005d).

Nilssen is currently monitoring Construction Phase excavations at the Lifestyle Estate development, where a number of early Christian graves have been uncovered during excavations (Peter Nilssen pers. comm. January 2026).

7. RESULTS

7.1 Archaeology

Despite the highly transformed landscape, large numbers of Stone Age resources were recorded during the field assessment conducted on the 30th of January 2026 (Figure 12 & Table 1)

More than 95% of the resources identified comprised Early Stone Age (ESA) implements, while a small number of Middle Stone Age (MSA) flake tools were also recorded. No Later Stone Age (LSA) implements or any organic remains such as pottery or ostrich eggshell were found. All of the stone artefacts are in locally available quartzite, struck from round, abraded, colluvial cortex cobbles.

While a few isolated tools/lithics and a few ephemeral scatters of implements were recorded in the actively ploughed fields, several quite distinct, scatters of tools were also recorded, one of which was encountered outside the development footprint. These high-density scatters were recorded on elevated, ploughed/ripped, hill slopes which are covered in widely dispersed quartzite cobbles. Many ESA pieces were counted among these scatters of unworked stone, comprising mostly cortex chunks, broken and flaked chunks/minimal cores, a few unmodified and retouched flakes, and some round cores. A Large Cutting Tool (LCT), a cleaver, and six complete, incomplete and broken Acheulean handaxes were also recorded on the cobble, terraces. One handaxe blank was also found.

Indications are that these dispersed concentrations of unworked stone, brought to the surface by ploughing, were probably targeted by ESA hominins as a source of raw material for making stone tools. The majority of the remains comprised broken chunks, cortex pieces and flakes, suggesting that most of the pieces comprise flake debris, while complete tools such as handaxes, LCTs, choppers and cleavers for example were probably removed from the quarry/workshop site, by the tool makers. The presence of a handaxe blank further supports this argument.

A small number of Middle Stone Age (MSA) flakes were also recorded on the cobble terrace, but no formal tools such as points, or scrapers were encountered.

Grading

The highly transformed context in which they were found means that the archaeological resources have been graded as having Low (Grade 3C) archaeological significance and are considered Not Conservation Worthy (NCW).

A collection of ESA resources, and the context in which the remains were found is presented in Figures 13-24.

Heritage Impact Assessment Proposed Secondary School, Tertiary School & Hospital Development
on Farm 219 Hartland Lifestyle Estate, near Mossel Bay



Figure 12. Track path (in blue) & waypoints of archaeological finds

Points	Name of Farm	Lat/Long	Description of finds	Grading	Mitigation
	Farm 219		All in quartzite	NCW ¹	
616		S34° 05.932' E22° 07.053'	Chunk	NCW	None required
716		S34° 05.923' E22° 07.060'	Broken chunk	NCW	None required
815		S34° 05.921' E22° 07.061'	Chunk	NCW	None required
914		S34° 05.899' E22° 07.086'	Flaked chunk	NCW	None required
014		S34° 05.901' E22° 07.071'	Chunk	NCW	None required
114		S34° 05.903' E22° 07.062'	Broken chunk	NCW	None required
314		S34° 05.896' E22° 07.057'	Flaked chunk/minimal core	NCW	None required
412		S34° 05.808' E22° 07.176'	Chunk	NCW	None required
512		S34° 05.800' E22° 07.163'	Core	NCW	None required
612		S34° 05.884' E22° 07.058'	Large flake	NCW	None required
711		S34° 05.879' E22° 07.053'	Chunk	NCW	None required
812		S34° 05.854' E22° 07.056'	Retouched piece	NCW	None required
911		S34° 05.825' E22° 07.084'	Core	NCW	None required
011		S34° 05.768' E22° 07.132'	Chunk	NCW	None required
211		S34° 05.823' E22° 07.078'	Flaked chunk	NCW	None required
311		S34° 05.824' E22° 07.068'	MSA flake	NCW	None required
211		S34° 05.799' E22° 07.079'	Broken chunk	NCW	None required
241		S34° 05.973' E22° 07.008'	Retouched/biface/handaxe	NCW	None required
251		S34° 06.045' E22° 06.898'	Chunk	NCW	None required
269		S34° 06.150' E22° 06.826'	Flaked chunk/core	NCW	None required
317		S34° 06.197' E22° 06.806'	Large biface/handaxe	NCW	None required
327		S34° 06.181' E22° 06.787'	Chunk	NCW	None required
347		S34° 06.165' E22° 06.791'	Round core	NCW	None required
367		S34° 06.235' E22° 06.756'	MSA flake	NCW	None required
377		S34° 06.221' E22° 06.714'	Chunk	NCW	None required

¹ Not Conservation Worthy

Heritage Impact Assessment Proposed Secondary School, Tertiary School & Hospital Development
on Farm 219 Hartland Lifestyle Estate, near Mossel Bay

387		S34° 06.197' E22° 06.739'	Handaxe	NCW	None required
397		S34° 06.200' E22° 06.669'	Chunk	NCW	Outside footprint area
406		S34° 06.147' E22° 06.717'	Handaxe blank	NCW	Outside footprint area
416		S34° 06.146' E22° 06.718'	Chunk	NCW	Outside footprint area
426		S34° 06.130' E22° 06.705'	Handaxe	NCW	Outside footprint area
436		S34° 06.128' E22° 06.699'	Retouched piece	NCW	Outside footprint area
446		S34° 06.123' E22° 06.692'	Round core	NCW	Outside footprint area
456		S34° 06.098' E22° 06.709'	MSA flake	NCW	Outside footprint area
466		S34° 06.120' E22° 06.713'	MSA flake	NCW	Outside footprint area
476		S34° 06.138' E22° 06.721'	Broken piece	NCW	Outside footprint area
486		S34° 06.139' E22° 06.722'	Incomplete handaxe	NCW	Outside footprint area
496		S34° 06.155' E22° 06.741'	Chunk	NCW	Outside footprint area
506		S34° 06.155' E22° 06.741'	Chunk	NCW	None required
288		S34° 06.129' E22° 06.775'	Flake	NCW	Outside footprint area
298		S34° 06.138' E22° 06.787'	Chunk	NCW	None required
515		S34° 06.136' E22° 06.786'	Flaked chunk	NCW	None required
555		S34° 06.097' E22° 06.823'	Core	NCW	None required
525		S34° 06.067' E22° 06.797'	Large handaxe	NCW	None required
535		S34° 06.071' E22° 06.821'	Chunk	NCW	None required
545		S34° 06.056' E22° 06.816'	Chunk	NCW	None required
565		S34° 06.034' E22° 06.824'	Broken chunk	NCW	None required
575		S34° 06.018' E22° 06.788'	Retouched piece	NCW	None required
674		S34° 05.970' E22° 06.772'	Bifacial handaxe	NCW	None required
605		S34° 05.921' E22° 06.859'	MSA flake	NCW	None required
595		S34° 05.799' E22° 07.038'	Flaked chunk/minimal core	NCW	None required
625		S34° 39.216' E20° 13.978'	Large flake/cleaver	NCW	None required
635		S34° 05.881' E22° 06.877'	Chunk	NCW	None required
645		S34° 05.899' E22° 06.911'	Chunk	NCW	None required
654		S34° 05.907' E22° 06.894'	Core	NCW	None required
615		S34° 05.921' E22° 06.859'	Chunk	NCW	None required

Table 1. Waypoints and description of archaeological finds



Figure 13. Collections of ESA tools. Ruler scale in cm



Figure 14. Collections of ESA tools. Ruler scale in cm



Figure 15. Collections of ESA tools. Ruler scale in cm



Figure 16. Collections of ESA tools. Ruler scale in cm



Figure 17. Collections of ESA tools. Ruler scale in cm



Figure 18. Collections of ESA tools. Ruler scale in cm



Figure 19. Collections of ESA tools. Ruler scale in cm



Figure 20. Collections of ESA tools. Ruler scale in cm



Figure 21. Collections of ESA tools. Ruler scale in cm



Figure 22. Context in which the remains were found Context in which the remains were found



Figure 23. Context in which the remains were found



Figure 24. Context in which the remains were found. Note the plough lines

7.2 Palaeontology

According to Bamford (2026) the proposed development site lies on the 'potentially very highly' sensitive Enon Formation (Uitenhage Group) 'according to SAHRIS only'. The Enon Formation contains a few disarticulated and abraded bone fragments of unknown vertebrates, and a few pieces of charred fossil wood. The latter, however, could be derived from re-worked Cape Supergroup sediments. The fragments are insufficient to date the Enon Formation and probably younger, indeterminate sediments are lumped in the Enon Formation in the geological maps.

Bamford (2026) has also shown that the Enon Fm. is used as a catchall for Cretaceous and younger sediments that are not sufficiently distinct enough to assign to any other formation. The lithology includes cobbles, conglomerates, sandstones and transported debris, all older rocks of the Cape Supergroup, and younger sands and alluvium which been deposited in the valleys (Figure 24). Hence 'it is unlikely that any fossils of scientific value would be recovered during the Construction Phase of the development'.

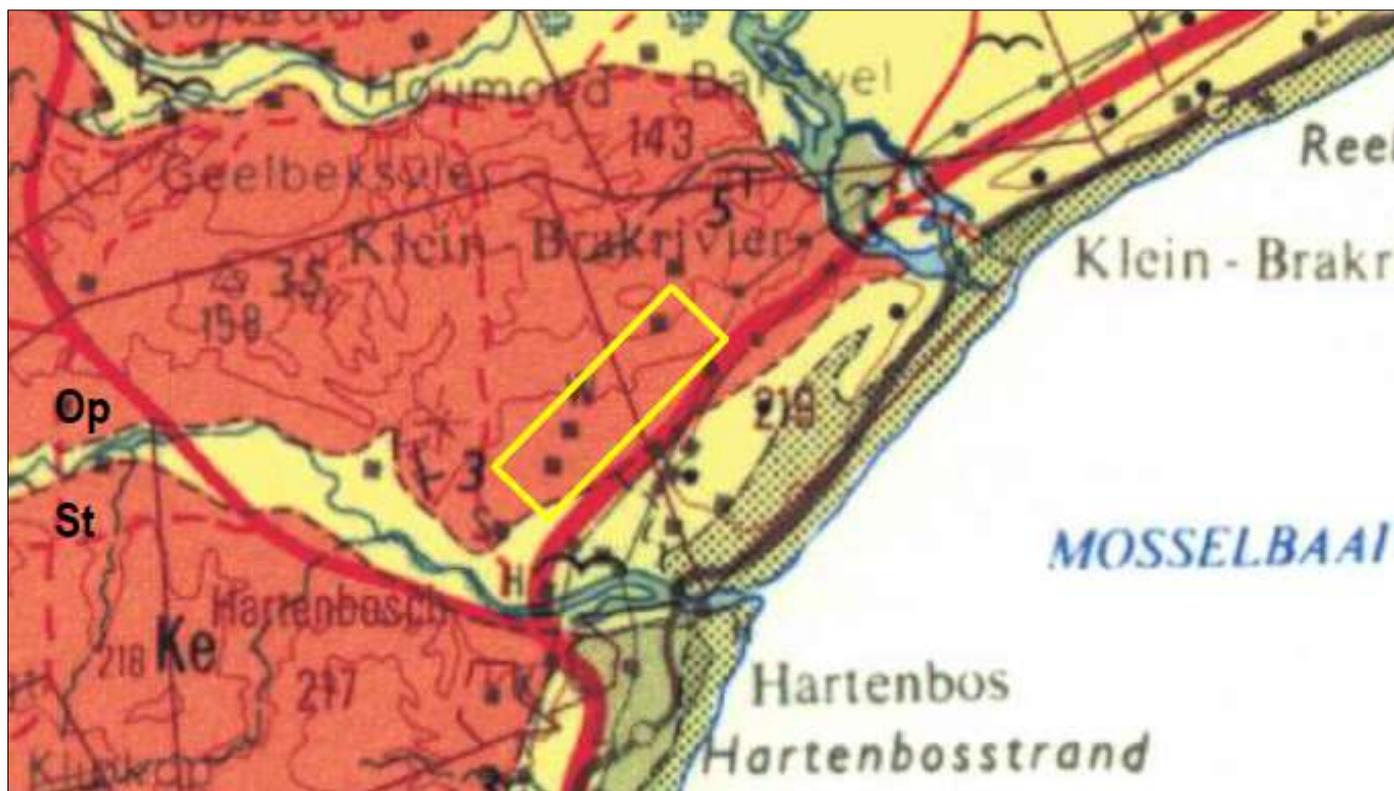


Figure 24. Geological map of the area around the Hartland Lifestyle Estate project site that is indicated by the yellow rectangle (Bamford 2026)

From the SAHRIS map below (Figure 25) the area is indicated as very highly, sensitive (red) but according to the geology, this is unlikely because it is composed of a mixture of clasts and matrix. Since the likelihood that there are scientifically significant fossils in the project footprint is LOW, the upgrade project is unlikely to impact the palaeontological heritage (Bamford 2026:10).



Colour	Sensitivity	Required Action
RED	VERY HIGH	field assessment and protocol for finds is required
ORANGE/ YELLOW	HIGH	desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	desktop study is required
BLUE	LOW	no palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	no palaeontological studies are required
WHITE/CLEAR	UNKNOWN	these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

Figure 25. SAHRIS palaeosensitivity map for the site for the proposed development for the Hartland Lifestyle Estate on Farm 219, Mossel Bay, shown within the yellow polygon (Bamford 2026)

7.3 Graves

No graves or typical grave features were, encountered during the field assessment.

7.4 Built Environment

There are no buildings, dwellings, structures, or features within the proposed site alternatives. Therefore, no direct impacts to the built environment will occur.

7.5 Cultural landscape

Historically, at least for the last 80 odd years, the Cultural Landscape was dominated by agriculture. However, while agriculture is still a characteristic feature of the surrounding landscape, a strong residential component has come to define the evolving Cultural Landscape, where several housing/estate developments have emerged in recent years (examples include the Hartlands Lifestyle Estate directly opposite the development site). A large shopping mall (Garden Walk Mall) is also currently being built less than a kilometer south of the proposed development. The rapidly expanding suburbs of Hartenbos and Tergniet are also visible in the changing rural agricultural landscape, where residential and commercial development will in the near future come to dominate the Cultural Landscape.

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8. COMMENTS

Comments will be included in the Final HIA report presented to Heritage Western Cape.

9. ANTICIPATED IMPACT

Archaeological resources will be impacted by the proposed Hartlands Hospital and School Development, but nearly 90 years of active agriculture has severely compromised the integrity of the archaeological landscape.

Therefore there are no objections, on archaeological ground, to the development proceeding.

Regarding palaeontological heritage, the geological structures suggest that the rocks are from mixed sources and have been transported, so do not contain recognisable or scientifically useful fossils (Bamford 2026). Furthermore, the material to be excavated is likely to be mostly sand and this does not preserve significant fossils.

10. CONCLUSION

Indications are that the proposed Hartlands School and Hospital Development on Re Farm Vaalevalley 219 near Mossel Bay does not pose a significant threat to local archaeological heritage resources. Relatively large numbers of ESA lithics (mostly flake debris) were recorded among extensive scatters of abraded colluvial gravels, but nearly 90 years of active agriculture have compromised the context in which the remains were found. It is argued that the scatter of stone implements in the development area may be remnants of an ESA quarry or workshop site, where ESA hominins sourced raw materials (quartzite cobbles) for making stone tools, where most of the finished implements such as handaxes, LCTs and cleavers were removed to a home base further away. The above resources all occur in a severely transformed context and have been graded as having Low (Grade 3C) archaeological significance and are considered to be Not Conservation Worthy (NCW)

Since there is a small chance that fossils from the Enon Formation may be disturbed a Fossil Chance Find Protocol has been added to this report. However, taking account of the defined criteria, 'the potential impact to fossil heritage resources is low' (Bamford 2026)

11. RECOMMENDATIONS

Regarding the proposed Hartlands Schools and Hospital Development on Re Farm 219 Vaalevalley, Hartenbos, the following recommendations are, made:

1. No archaeological mitigation is required prior to construction excavations commencing.
2. No archaeological monitoring is required during the Construction Phase.
3. In the unlikely that any human remains are uncovered during construction activities; these must be immediately reported to the archaeologist (J Kaplan 082 321 0172) who will inform Heritage Western Cape. Burials must not be disturbed or removed until inspected by a professional archaeologist.
4. Since there is a small chance that fossils may occur below the soil cover in the conglomerate and sands of the Enon Formation (Uitenhage Group) the Fossil Chance Find Protocol should be added to the EMP. If fossils are found by the environmental officer, or other responsible person once excavations have commenced, then they should be rescued and a palaeontologist called to assess and collect a representative sample. The impact on the palaeontological heritage would be low, as far as the palaeontology is concerned, so the project should be authorised.

The above recommendations must be included in the Environmental Management Plan (EMP) for the development and must be monitored by the Environmental Control Officer (ECO).

12. REFERENCES

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Nilssen, P. 2005b. Archaeological Heritage Impact Assessment, proposed rezoning and development of Re Portion VYF Brakkefontein 220, Hartenbos Heuwels, Mossel Bay. Report prepared for SRK Consulting. MAPCRM, Great Brak River.

Nilssen, P.J. 2005c Archaeological Heritage Impact Assessment: Proposed rezoning and subdivision of Remainder 249 Vyf-Brakkefontein 220, Kwanonqaba, Mossel Bay. MAPCRM cc, Great Brak River.

Heritage Impact Assessment Proposed Secondary School, Tertiary School & Hospital Development
on Farm 219 Hartland Lifestyle Estate, near Mossel Bay

Nilssen, P. 2005d. Archaeological Heritage Impact Assessment, proposed rezoning and subdivision of a Portion of Valle Valley 219, Mossel Bay, Western Cape Province. Report prepared for Sharples Environmental Services. MAPCRM, Great Brak River.

Appendix A

Desktop Palaeontological Impact Assessment

Appendix B

Details of the heritage specialist/Curriculum vitae

CURRICULUM VITAE

Name: Jonathan Michael Kaplan
Profession: Archaeologist/Heritage Practitioner
Date of Birth: 23-09-1961
Name of Company: Agency for Cultural Resource Management (ACRM)
Position: Director
Nationality: South African
ID Number: 6109235177089
Marital status: Married with two children

Languages:
First language: English
Second Language: Afrikaans

Contact details: 5 Stuart Road
Rondebosch
7700
Mobile 082 321 0172
jonathan@acrm.co.za

Qualifications:

- MA (Archaeology) University of Cape Town, 1989.

Professional registration:

- Association of Southern African Professional Archaeologists (ASAPA) Membership No. 64
- Registered with the South African Heritage Resources Agency (SAHRA)

Company profile:
ACRM was founded by Jonathan Kaplan in 1992 and is one of the oldest heritage consultancies in the country. Jonathan has completed nearly 3000 Archaeological and Heritage Impact Assessments (HIA & AIAs), specialising in Stone Age, coastal shell middens, rock art and herder studies. He has undertaken baseline studies on large infrastructure projects, including the Lesotho Highlands Water Project, Maguga Dam (Swaziland), Namibia/Botswana Water Transfer Project, Sasol/ACO Gas Pipeline (South Africa & Mozambique), Corridor Sands (Mozambique) and numerous utility projects for Eskom, the Department of Transport and Public Works, local and provincial authorities, as well as private developers. Since 2010, ACRM has conducted baseline studies (Scoping and full EIA) on alternative energy (Wind, PV Solar, Gas & Battery Energy Storage Systems) projects in the Western Cape, Northern Cape and Free State Provinces. Jonathan was been appointed as a specialist consultant for archaeological collections for the Master Plan for the new Lesotho National Museum and Art Gallery under construction in Maseru.

Countries of work experience:

South Africa
Lesotho
Swaziland
Namibia
Botswana
Mozambique

Publications:

- Orton, J., Avery, G. Halket, D., Hart, T. & Kaplan, J, 2020. Precolonial coastal archaeology between Table Bay and Yzerfontein, Western Cape, South Africa: a review of historical and recent observations. South African Journal of Humanities.
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Services offered:

- Archaeological Impact Assessments
- Heritage Impact Assessments
- Heritage Management Plans
- Heritage tourism
- Rock art recording
- Excavation and data analysis
- Monitoring of construction activities

Declaration:

I confirm that the above CV is an accurate description of my experience and qualifications.



Signature

Date: 01 January 2026