

**BAZINI HEIGHTS BULK WATER PIPELINE PROJECT,
UGU DISTRICT MUNICIPALITY, KWAZULU-NATAL**

Phase 1 Heritage Impact Assessment

January 2022

**FOR: Wallace & Green Environmental Consulting
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EXECUTIVE SUMMARY

Ugu District Municipality proposes to install a 1.6km gravity main pipeline as well as 8.6km reticulation pipeline to connect into the existing reticulation in Bazini Heights which will supplement the current water supply from the existing Kwajali Reservoir to cater for current and future demands. The project was necessitated by the lack of water supply to the Bazini reservoir which was mainly due to the inadequacy of the supply pipeline and illegal connections along the rising main feeding Kwajali reservoir and pumpstation which in turn supplies Bazini Reservoir.

It was noted during the site assessment that a section of the pipeline had already installed. However, work had ceased as environmental authorisation is required from KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (EDTEA) and the relevant process is currently being undertaken

The length of the reticulation pipelines in total is approximately 10.2 km hence the project triggers section 41 (1)(a) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018). Section 41 (1)(a) refers to the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length.

The project area is located approximately 21km south-west of the town of Harding. The project falls within the Ugu District Municipality. The project area is rural in nature with access to the community largely via gravel roads. A site inspection of the pipeline took place on 14 December 2021. The pipeline route and surrounding area were inspected on foot.

The site inspection started from the north-western end of the northern 'branch' of the pipeline route and proceeded via the Bazini reservoir. The pipeline routes run mainly along gravel roads apart from a small section north-west of the Bazini reservoir and a larger section that runs south from the reservoir.

The pipeline route south of the Bazini reservoir is mostly uninhabited until the last 200m before the pipeline intersects with the other pipeline routes and a gravel road. There are several homesteads in this area. One grave site was pointed out to the specialist by a resident who also pointed out graves near the homestead located diagonally across from the resident's home.

There area along the eastern 'branch' of the pipeline is inhabited with homesteads situated away from the road along which the pipeline is proposed to be installed. The homesteads located close to the pipeline route were thoroughly inspected but no graves were found. Several of the

homesteads are new which could be the reason for the absence of graves. In addition, the topography on either side of the road was steep in places.

The south-western 'branch' of the pipeline was thereafter inspected. Several graves and other sites were found including the remains of homestead and an abandoned trading store that appears to be over 60 years therefore protected by heritage legislation.

The Bazini Heights bulk water pipeline project falls into an area of high fossil sensitivity interspersed with small areas of insignificant fossil sensitivity. The desktop palaeontological study undertaken found that the project lies on the non-fossiliferous Jurassic dolerite and the potentially fossiliferous Ecca Group shales. In this part of the Karoo Basin, the Ecca Group is undifferentiated (no formations are recognised) because the lithology (rock types) is not distinct and there are no fossils recorded. In addition, the area is covered in recent Quaternary soils. The study recommended that a Fossil Chance Find Protocol should be included in the EMPr that will be used for the project. The study recommended that no further palaeontological assessment is required unless fossils are found once the installation of the pipeline has commenced. The study stated that the fossil sensitivity is low and the project should be authorised.

Several grave sites were found during the inspection. Most are located some distance from the pipeline route. In terms of section 39 (1) of the KwaZulu-Natal Amafa and Research Institute Act, graves or burial grounds older than 60 years or deemed to be of heritage significance by a heritage authority- (a) not otherwise protected by the above Act and (b) not located in a formal cemetery managed or administered by a local authority, may not be damaged, altered, exhumed, inundated, removed from its original position, or otherwise disturbed without the prior written approval of the Institute having been obtained on written application to the Institute.

Some of the graves identified during the site inspection are over 60 years and some are not. However, graves are highly significant to many people and there are many traditional, cultural and personal sensitivities and norms concerning damage to graves or the relocation of graves. It is recommended that graves are not moved. If, for whatever reason, graves will need to be altered or moved, the procedure provided in section 5 of the Draft KwaZulu-Natal & Research Institute Regulations, 2021 must be followed or the process in section 4 of the KwaZulu-Natal Heritage Regulations 2012 if the 2021 regulations have not been officially promulgated by the time an application is made.

During the site inspection, the remains of a modern structure was found as well as an intact but abandoned trading store. The trading store appears to be over 60 years and is therefore protected

by section 37 (1)(a) of the KwaZulu-Natal Amafa and Research Institute Act, 2018, which refers to the protection of structures that are or that may reasonably be expected to be older than 60 years. It is recommended that the trading store and associated structures be left intact. If, however, for whatever reason, the structure is to be impacted by the proposed pipeline, then application must be made to the Institute in terms of the process described in section 3 of the draft KwaZulu-Natal & Research Institute Regulations, 2021 or section 2 of the KwaZulu-Natal Heritage Regulations 2012 if the 2021 regulations have not been officially promulgated by the time an application is made.

It is recommended that the Bazini Heights bulk water reticulation project proceed from a heritage perspective as long as the recommendations and mitigation measures provided in this report and in the desktop palaeontological report are implemented and adhered to.

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I, Jean Beater, act as an independent specialist for this project and I do not have any vested interest either business, financial, personal or other, in the proposed activity other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014.

SPECIALIST DETAILS

Name	Qualification	Professional Registration
Jean Beater	MA (Heritage Studies) MSc (Environmental Management)	Member of Association of South African Professional Archaeologists (No. 349) Member of IAIAsa (No. 1538)

1. INTRODUCTION

According to JTN Consulting (2021: 1), Ugu District Municipality proposes to install a 1.6km gravity main pipeline as well as 8.6km reticulation pipeline to connect into the existing reticulation in Bazini Heights which will supplement the current water supply from the existing Kwajali Reservoir to cater for current and future demands. The details of the proposed infrastructure are as follows:

- 90mm diameter HDPE gravity main pipeline from Bazini Reservoir to reticulation system.
- 110mm, 75mm, 63mm and 50mm diameter reticulation system and associated chambers.

The project was necessitated by the lack of water supply to the Bazini reservoir which was mainly due to the inadequacy of the supply pipeline and illegal connections along the rising main feeding KwaJali reservoir and pumpstation which in turn supplies Bazini Reservoir (JTN Consulting: 2).

It was noted during the site assessment that a section of the pipeline had already installed. However, work had ceased as environmental authorisation is required from KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (EDTEA) and the relevant process is currently being undertaken.

2. LEGISLATIVE BACKGROUND

The length of the reticulation pipelines in total is approximately 10.2 km hence it hence the project triggers section 41 (1)(a) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018) which lists developments or activities that may require an HIA. Section 41 (1)(a) refers to: “the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length”.

The installation and operation of the pipeline may also impact graves, structures, archaeological and palaeontological resources that are protected in terms of sections 37, 38, 39, and 40 of the KwaZulu-Natal Amafa and Research Institute Act, 2018.

In terms of section 3 of the NHRA, heritage resources are:

- (a) places, buildings, structures and equipment of cultural significance;
- (b) places to which oral traditions are attached or which are associated with living heritage;
- (c) historical settlements and townscapes;
- (d) landscapes and natural features of cultural significance;

- (e) geological sites of scientific or cultural importance;
- (f) archaeological and paleontological sites;
- (g) graves and burial grounds, including—
 - (i) ancestral graves;
 - (ii) royal graves and graves of traditional leaders;
 - (iii) graves of victims of conflict;
 - (iv) graves of individuals designated by the Minister by notice in the *Gazette*;
 - (v) historical graves and cemeteries; and
 - (vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- (h) of significance relating to the history of slavery in South Africa;
- (i) movable objects, including:
 - (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - (ii) objects to which oral traditions are attached or which are associated with living heritage;
 - (iii) ethnographic art and objects;
 - (iv) military objects;
 - (v) objects of decorative or fine art;
 - (vi) objects of scientific or technological interest; and
 - (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

3. LOCATION

The project area is located approximately 21km south-west of the town of Harding (**Figure 1**). The project area is rural in nature with access to the community via gravel roads (**Figure 2**). The coordinates of the Bazini Reservoir are 30°40'17.17" S; 29°43'40.12" E.

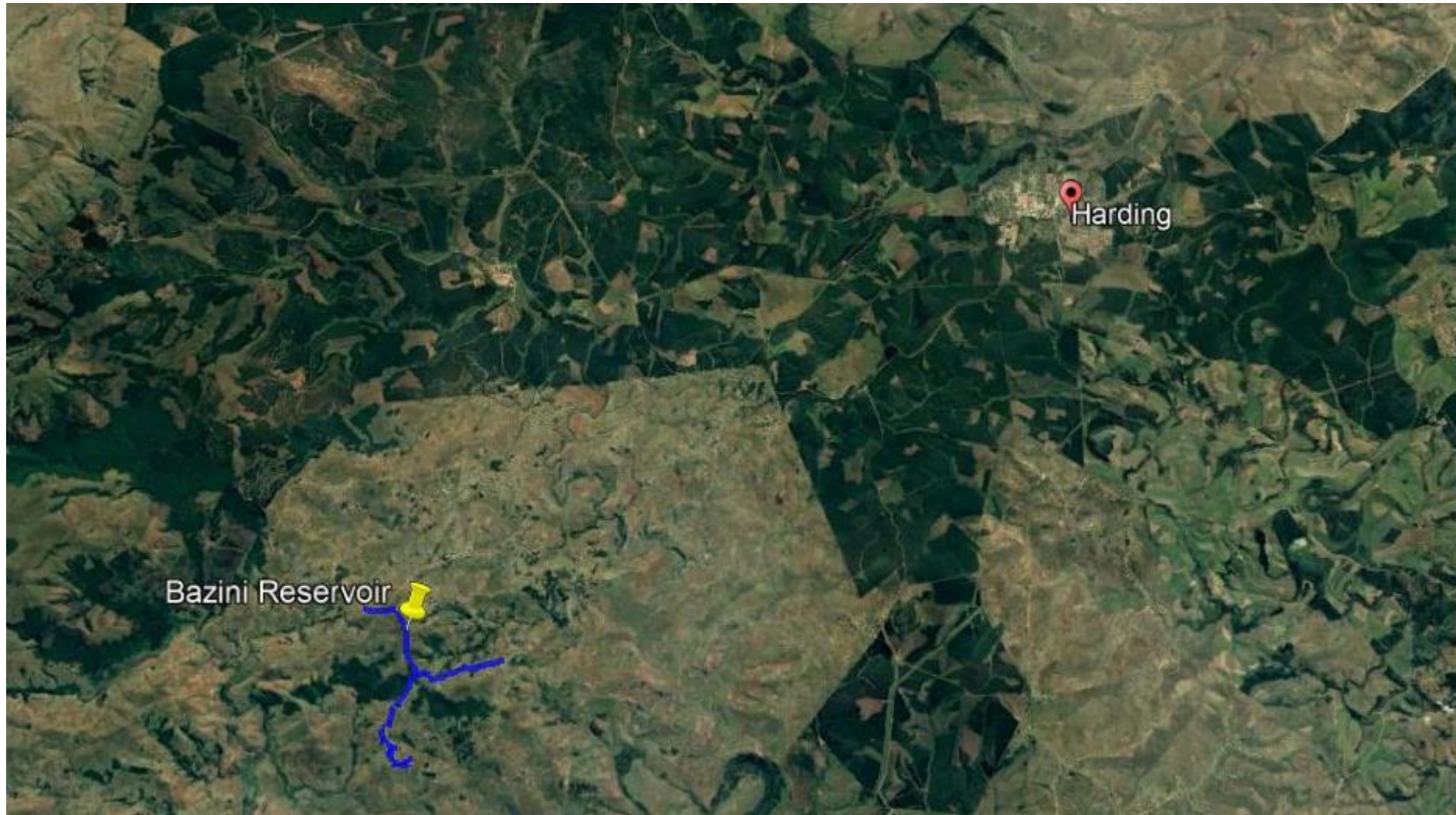


Figure 1: Locality of project area in relation to Harding and N2 highway



Figure 2: Closer view of location of pipeline routes

4. TERMS OF REFERENCE

Undertake a Phase 1 Heritage Impact Assessment in order to determine the possible existence of heritage resources that could be impacted by the Bazini Heights bulk water project. In addition, provide mitigation measures to limit or avoid the impact of the proposed project on heritage resources (if any).

Submit the HIA report to the provincial heritage resources authority, the KwaZulu-Natal Amafa and Research Institute (hereafter referred to as the Institute), for their assessment and comment.

5. METHODOLOGY AND CONSTRAINTS

A survey of literature, including other heritage impact assessment reports completed for the surrounding area, was undertaken in order to ascertain the history of the area and what type of heritage resources have or may be found in the area of development.

A site inspection of the pipeline took place on 14 December 2021. The pipeline route and surrounding area were inspected on foot. Visibility was good.

6. HISTORICAL BACKGROUND OF PROJECT & SURROUNDING AREA

The available evidence, according to Prins (2015:4), indicates that the larger surrounding area especially to the east, contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. These include Early, Middle and later Stone Age sites, Early Iron Age sites, Later Iron Age sites, and some historical sites. Stone Age sites of all the main periods and cultural traditions occur along the coastal cordon in the immediate vicinity of Port Shepstone. Most of these occur in open air contexts. The occurrence of Early Stone Age tools in the near vicinity of permanent water resources is typical of this tradition. Later Iron Age sites also occur in the greater Port Shepstone area to the east of Harding. These were agro-pastoralists who arrived in southern Africa a 1000 years ago via East Africa. Later Iron Age communities in KwaZulu-Natal were the direct ancestors of the Zulu-speaking people (Prins 2013:4-5).

Harding was established as a military outpost in 1877 and proclaimed a township in 1911. The town was named after Sir Walter Harding (c 1812-1874) who, in 1858, became the first Chief Justice in the Colony of Natal (Raper undated:198).

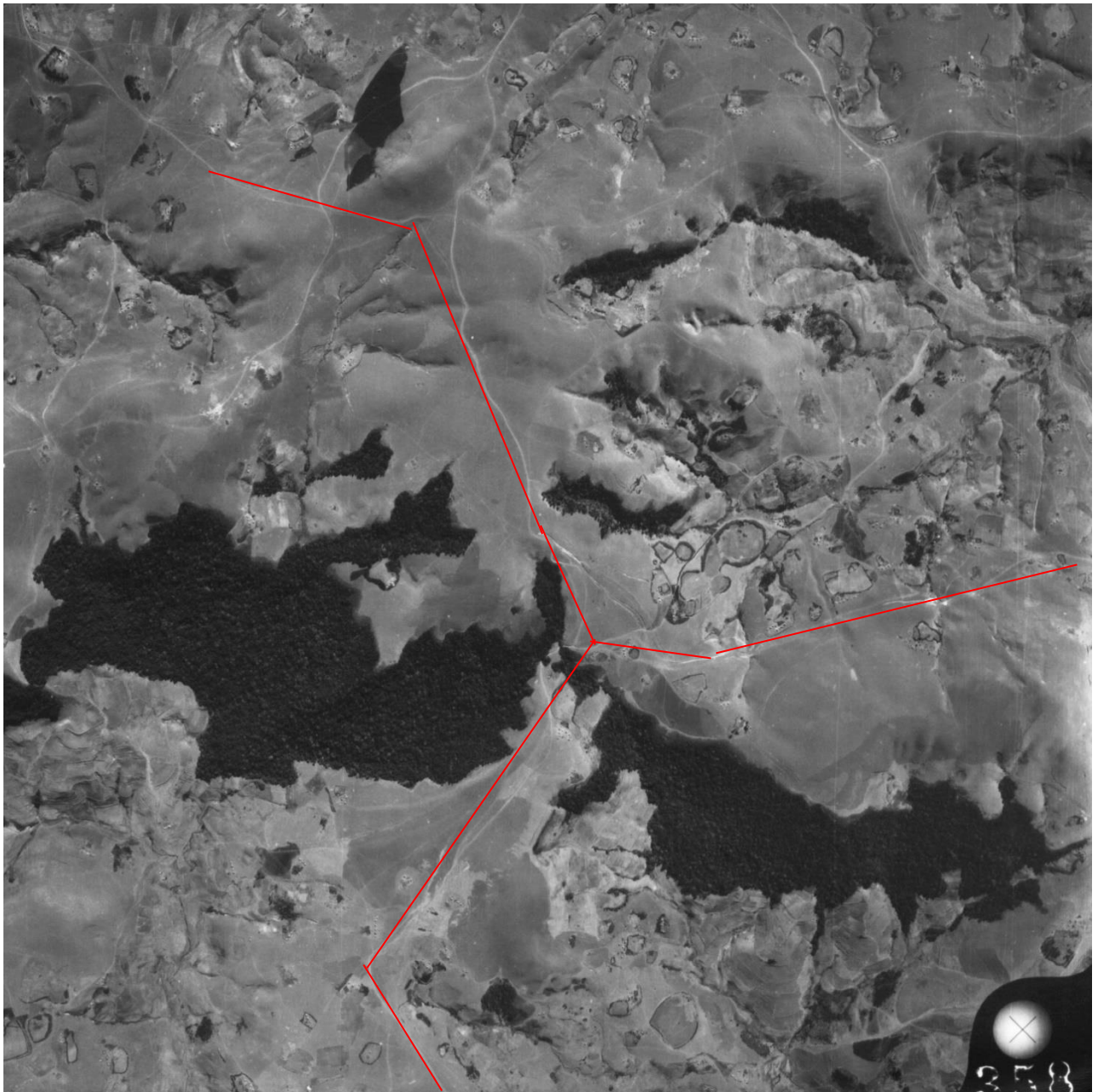


Figure 3: 1955 aerial photograph with approximate route of pipeline indicated in red

The above 1955 aerial photograph shows an area that is sparsely inhabited especially in the north with more residences visible in the vicinity of the southern and eastern pipeline routes. The 1968 topographic map (3029DA) shows more residences in the northern and southern sections of the pipeline route.

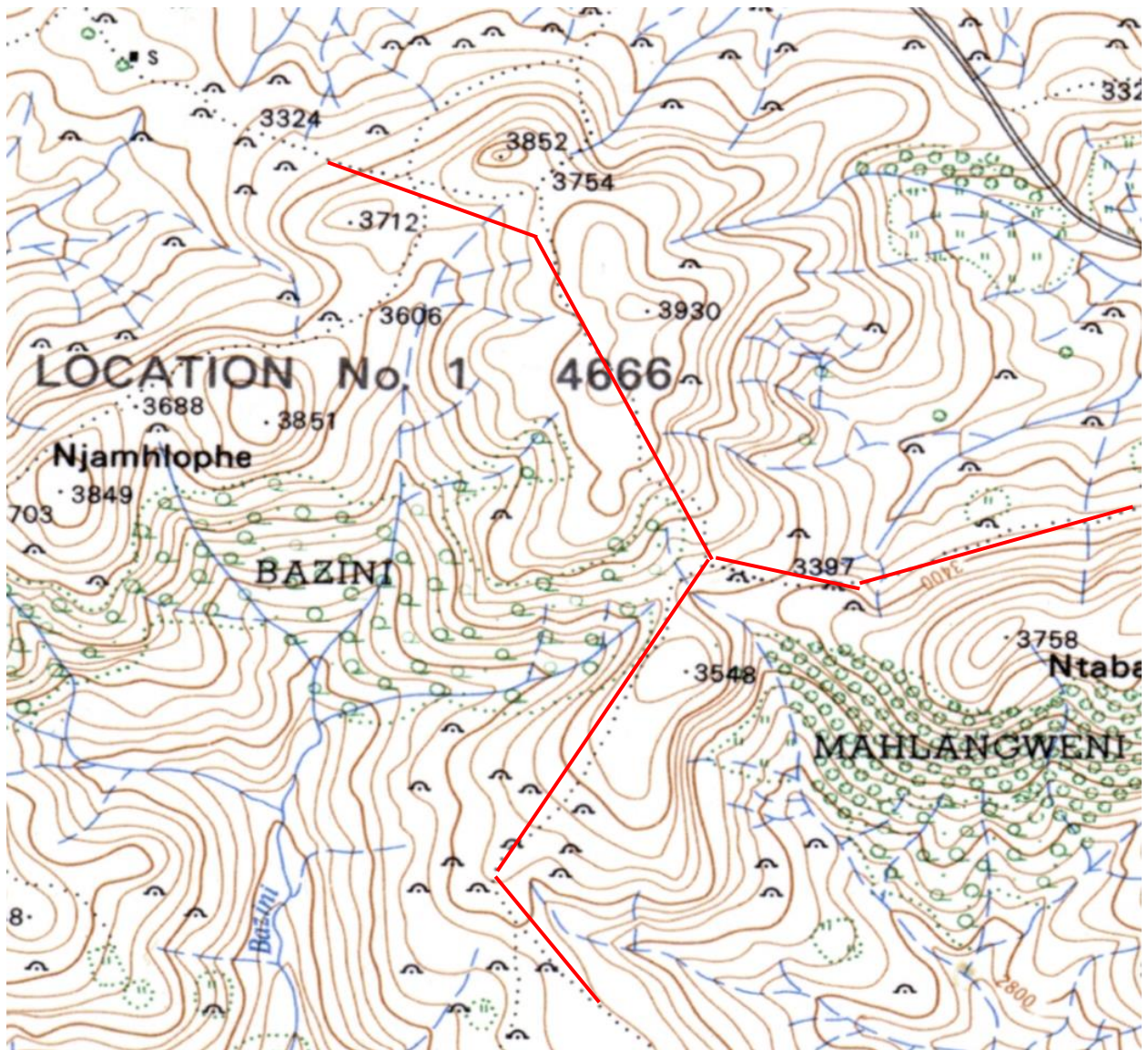


Figure 4: Pipeline routes indicated on 1968 topographic map

7. RESULT OF SITE INSPECTION

The pipeline routes were inspected on foot. The inspection started from the north-western end of the northern 'branch' of the pipeline route and proceeded via the Bazini reservoir. The pipeline routes run mainly along gravel roads apart from a small section north-west of the Bazini reservoir and a 600m section that runs south from the reservoir. This section of the pipeline had already been installed as the disturbed area is visible.

During the inspection several grave sites were found with most sites situated well away from the bulk water pipelines. The specialist spoke to several residents about heritage sites along the

pipeline route and in the surrounding area. Several sites were pointed out to the specialist by residents. The sites found during the inspection are listed in **Table 1** on page 19 of this report.



Figure 5: Proposed pipeline route north-west end of route



Figure 6: Newly installed pipeline next to gravel road *en-route* to reservoir



Figure 7: Pipeline route to Bazini reservoir

The remains of a structure that appears to be well below 60 years is located 38 m north of the proposed pipeline.



Figure 8: Remains of structure

The pipeline route south of the Bazini reservoir is mostly uninhabited until the last 200m before the pipeline intersects with the other pipeline routes and a gravel road. There are several homesteads in this area. One grave site was pointed out to the specialist by Mrs Jali. The grave is situated 8m west of the proposed pipeline route which runs alongside the gravel road as indicated in **Figure 9**. She also showed the specialist some graves near the homestead that is located diagonally across from her home. These graves are situated approximately 18m north of the pipeline.



Figure 9: Grave site indicated with corrugated iron

The eastern 'branch' of the pipeline route was inspected on foot. There area is inhabited with most homesteads situated away from the road (**Figure 10**) along which the pipeline is proposed to be installed. The homesteads located close to the pipeline route were thoroughly inspected but no graves were found. Several of the homesteads are new which could be the reason for the absence of graves. In addition, the topography on either side of the road was steep in places. The graves found are located near homesteads and away from the road such as the grave indicated in **Figure 11**. The grave is located over 30m south-west of the pipeline. As with the northern branch of the pipeline route, evidence of the newly installed Bazini pipeline is visible (**see Figure 12**).

A resident (Jojisa) pointed out five graves situated north of this section of the pipeline route. The graves are located 24m north of the pipeline route.



Figure 10: Pipeline route with dwellings situated some distance from road



Figure 11: Grave near homestead complex



Figure 12: Steep topography and newly installed pipeline route

The south-western 'branch' of the pipeline was thereafter inspected. Several graves and other sites were found which are listed in **Table 1** below.



Figure 13: Pipeline route



Figure 14: Single grave

The remains of a homestead were found close to the pipeline but no graves were found in the immediate area of the homestead. However, three graves were pointed to the specialist by Zama Mkhize that are located 25m east of the pipeline and homestead remains.



Figure 15: Remains of homestead



Figure 16: Three graves

An abandoned trading store was found with associated buildings. The structure appears to be over 60 years and is therefore protected by heritage legislation. It is situated about 30m west of the pipeline and should therefore not be impacted by the project.



Figure 17: Abandoned trading store

Table 1: Heritage sites found during site inspection

Description	Coordinates	Significance	Mitigation
Single grave (Fig. 9)	30°40'49.0" S 29°43'49.0" E	High heritage significance	Located 8m west of pipeline; a buffer of 5m must be placed around grave to ensure no damage to it during installation of pipeline
Graves	30°40'49.7" S 29°43'50.5" E	High heritage significance	Located 18m north of pipeline; buffer of 5m must be placed around graves to avoid damage to it during installation of pipeline
Approx. 5 graves	30°40'52.3" S 29°44'02.7" E	High heritage significance	Located over 20m north of pipeline & should not be impacted by project
Two graves	30°41'09.1" S 29°43'34.2" E	High heritage significance	Located 31m north of pipeline route; should not be impacted by project
Single grave (Fig. 14)	30°41'24.9" S 29°43'30.1" E	High heritage significance	Located 29m north of pipeline; should not be impacted by project
Remains of homestead (Fig. 15)	30°41'47.4" S 29°43'27.0" E	Low heritage significance	Located 4m north of pipeline; no graves were found, however, if possible, the area should be disturbed as little as possible
Three graves (Fig. 16)	30°41'47.6" S 29°43'28.2" E	High heritage significance	Located 23m south-east of pipeline; should not be impacted by project
Abandoned trading store & associated outbuildings (Fig. 17)	30°41'55.7" S 29°43'32.1" E	Low heritage significance as there are other examples of such structures elsewhere	Located 30m west of pipeline; should not be impacted by project & it is recommended that the structure be left <i>in-situ</i>
Two graves	30°41'51.5" S 29°43'49.9" E	High heritage significance	Located 39m east of pipeline; should not be impacted by project

The Bazini Heights bulk water pipeline project falls into an area of high fossil sensitivity interspersed with small areas of insignificant fossil sensitivity. The desktop palaeontological study undertaken found that the reticulation project lies on the non-fossiliferous Jurassic dolerite and the potentially fossiliferous Ecca Group shales. In this part of the Karoo Basin, the Ecca Group is undifferentiated (no formations are recognised) because the lithology (rock types) is not distinct and there are no fossils recorded. In addition, the area is covered in recent Quaternary soils. The study recommended that a Fossil Chance Find Protocol should be included in the Environmental Management Programme (EMPr) that will be used for the project (Bamford 2022:2).

The study recommended that no further palaeontological impact assessment is required unless fossils are found by the developer/ environmental officer/ other designated responsible person once the installation of the pipeline and other activities have commenced. As far as the

palaeontology is concerned, the sensitivity is low and so the project should be authorised (Bamford 2022:2).

8. ASSESSMENT OF SIGNIFICANCE OF IMPACTS

The assessment of significance of impacts on heritage resources identified during the site inspection has been undertaken in terms of the following criteria:

- The **nature**, which shall include a description of what causes the effect, what will be affected and how it will be affected.
- The **extent**, wherein it will be indicated whether the impact will be local (limited to the immediate area or site of development) or regional, and a value between 1 and 5 will be assigned as appropriate (with 1 being low and 5 being high).
- The **duration**, wherein it will be indicated whether:
 - the lifetime of the impact will be of a very short duration (0–1 years) – assigned a score of 1;
 - the lifetime of the impact will be of a short duration (2-5 years) - assigned a score of 2;
 - medium-term (5–15 years) – assigned a score of 3;
 - long term (> 15 years) - assigned a score of 4; or
 - permanent - assigned a score of 5;
- The **magnitude**, quantified on a scale from 0-10, where 0 is small and will have no effect on the environment, 2 is minor and will not result in an impact on processes, 4 is low and will cause a slight impact on processes, 6 is moderate and will result in processes continuing but in a modified way, 8 is high (processes are altered to the extent that they temporarily cease), and 10 is very high and results in complete destruction of patterns and permanent cessation of processes.
- The **probability** of occurrence, which shall describe the likelihood of the impact occurring. Probability will be estimated on a scale of 1–5, where 1 is very improbable (probably will not happen), 2 is improbable (some possibility, but low likelihood), 3 is probable (distinct possibility), 4 is highly probable (most likely) and 5 is definite (impact will occur regardless of any prevention measures).
- The **significance**, which shall be determined through a synthesis of the characteristics described above and can be assessed as low, medium or high; and
- The **status**, which will be described as either positive, negative or neutral.
- The degree to which the impact can be mitigated.

The following formula was applied to calculate the impact significance after the factors were ranked for each impact: $SP = (\text{magnitude} + \text{duration} + \text{scale}) \times \text{probability}$.

The significance weightings for each potential impact are as follows:

- < 30 points: Low (i.e. where this impact would not have a direct influence on the decision to develop in the area),
- 30-60 points: Medium (i.e. where the impact could influence the decision to develop in the area unless it is effectively mitigated),
- >60 points: High (i.e. where the impact must have an influence on the decision process to develop in the area).

Table 2: Assessment of impact on grave sites

Nature: Alteration, damage, destruction of graves		
	Without mitigation	With mitigation
Extent	Local (1)	Local (1)
Duration	Permanent (5)	Permanent (5)
Magnitude	High (8)	Moderate (6)
Probability	Probable (3)	Improbable (2)
Significance	42 (Medium)	24 (Low)
Status (positive or negative)	Negative	Negative
Reversibility	None	Low
Irreplaceable loss of resources	Yes	Yes
Can impacts be mitigated?	Yes	
Mitigation measures		
<ul style="list-style-type: none"> • 10m buffer around grave/s that are located less than 20m from pipeline. No construction activities may take place within this buffer area. • The buffer area must be clearly demarcated. • If grave/s are damaged during construction, then work must stop in the immediate vicinity and the grave must be rehabilitated to its previous condition. If the grave/s is >60 years, then the Institute must be informed and the necessary permits obtained from the Institute for the repair to the grave/s. • If it is decided that grave/s are to be moved, then the procedure stipulated in section 5 of the Draft KwaZulu-Natal & Research Institute Regulations, 2021 must be followed. The section refers to the application process to be undertaken for the damage, alteration, exhumation or removal from its original position or any other disturbance of a grave in a traditional burial place or not located in a formal cemetery 		
Cumulative impacts: Low-medium		

Table 3: Assessment of impact on protected structures

Nature: Alteration, damage, destruction of protected structures		
	Without mitigation	With mitigation
Extent	Local (1)	Local (1)
Duration	Permanent (5)	Permanent (5)
Magnitude	Moderate (6)	Low (4)
Probability	Probable (3)	Improbable (2)
Significance	36 (Medium)	20 (Low)
Status (positive or negative)	Negative	Negative
Reversibility	None	Low
Irreplaceable loss of resources	Yes	Yes
Can impacts be mitigated?	Yes	
<u>Mitigation measures</u>		
<ul style="list-style-type: none"> • It is recommended that the abandoned trading store be left in-situ. • However, if for whatever reason the structure is to be impacted on then written application must be made to the Institute according to the procedure stipulated in section 3 of the Draft KwaZulu-Natal & Research Institute Regulations, 2021 or section 2 of the KwaZulu-Natal Heritage Regulations 2012 if the 2021 regulations have not been officially promulgated by the time an application is made. • If a protected structure is damaged accidentally, then all work must stop in the immediate vicinity of the damage structure, the Institute informed and a built heritage specialist appointed to repair the building once all necessary permits have been obtained from the Institute 		
Cumulative impacts: Low		

9. DISCUSSION AND CONCLUSION

The proposed pipeline is located largely along gravel roads that are disturbed by road infrastructure, residential development and agricultural activities. Many of the homesteads are set well back from the road and the area is not very densely populated.

Several grave sites were found during the inspection. Most are located some distance from the pipeline route. In terms of section 39 (1) of the KwaZulu-Natal Amafa and Research Institute Act, graves or burial grounds older than 60 years or deemed to be of heritage significance by a heritage authority- (a) not otherwise protected by the above Act and (b) not located in a formal cemetery managed or administered by a local authority, may not be damaged, altered, exhumed, inundated, removed from its original position, or otherwise disturbed without the prior written approval of the Institute having been obtained on written application to the Institute.

Some of the graves identified during the site inspection are over 60 years and some are not. However, graves are highly significant to many people and there are many traditional, cultural and personal sensitivities and norms concerning damage to graves or the relocation of graves. It is recommended that graves are not moved. If, for whatever reason, graves will need to be altered or moved, the procedure provided in section 5 of the Draft KwaZulu-Natal & Research Institute Regulations, 2021 must be followed or the process in section 4 of the KwaZulu-Natal Heritage Regulations 2012 if the 2021 regulations have not been officially promulgated by the time an application is made.

The assessment of impacts indicated that if the proposed mitigation measures are adhered to then potential impacts on graves would reduce from a medium impact (which could influence the decision to develop in the area) to a low impact (where this impact would not have a direct influence on the decision to develop in the area).

During the site inspection, the remains of a modern structure was found as well as an intact but abandoned trading store. The trading store appears to be over 60 years and is therefore protected by section 37 (1)(a) of the KwaZulu-Natal Amafa and Research Institute Act, 2018, which refers to the protection of structures that are or that may reasonably be expected to be older than 60 years. It is recommended that the trading store and associated structures be left intact. If, however, for whatever reason, the structure is to be impacted by the proposed pipeline, then application must be made to the Institute in terms of the process described in section 3 of the draft KwaZulu-Natal & Research Institute Regulations, 2021 or section 2 of the KwaZulu-Natal Heritage Regulations 2012 if the 2021 regulations have not been officially promulgated by the time an application is made.

The assessment of significance of impacts on protected structures found that with the implementation of mitigation measures, the potential impact on the trading store would reduce from a medium impact (which could influence the decision to develop in the area) to a low impact (where this impact would not have a direct influence on the decision to develop in the area).

It is recommended that the Bazini Heights bulk water reticulation project proceed from a heritage perspective as long as the recommendations and mitigation measures provided in this report and in the desktop palaeontological report are implemented and adhered to.

10. MITIGATION MEASURES

- For any chance heritage finds, all work must cease in the area affected and the Applicant / Contractor must be immediately informed. A registered heritage specialist must be called to site to inspect the finding/s. The Institute must be informed about the finding/s.
- The heritage specialist will assess the significance of the resource and provide guidance on the way forward.
- Permits must be obtained from the Institute if heritage resources are to be removed, destroyed or altered.
- Under no circumstances may any heritage material be destroyed or removed from site unless under direction of a heritage specialist.
- Should any recent remains be found on site that could potentially be human remains, the South African Police Service as well as the Institute must be contacted. No SAPS official may remove remains (recent or not) until the correct permit/s have been obtained.
- All recommendations and mitigation measures provided in the desktop palaeontological study must be adhered to such as the inclusion of the fossil chance find protocol into the EMPr.

11. REFERENCES

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