

PHASE 1 ARCHAEOLOGICAL AND HERITAGE IMPACT ASSESSMENT REPORT FOR PROPOSED WATER SUPPLY PIPELINE AND SEWAGE TREATMENT PLANT IN INGWAVUMA TOWN, JOZINI LOCAL MUNICIPALITY IN THE KWAZULU NATAL PROVINCE

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ABSTRACT

This archaeological and heritage impact assessment study report presents results of field and primary research conducted for the proposed Ingwavuma Borehole, Water Treatment, Supply Water pipeline and sewage water treatment project in the Jozini Local Municipality area of the KwaZulu Natal Province. The study did not identify any significant archaeological or physical cultural property barriers to the proposed water infrastructure and sewage water treatment facility development. However, section of the site earmarked for sewage treatment facility was not readily accessible due to dense vegetation cover. Although the study did not identify any permanent barriers to the proposed developments further Walkdown archaeological survey may be necessary for the sewage facility development area once the site is cleared of vegetation prior to subsurface construction works. It is recommended that the KwaZulu Natal Provincial heritage agency approve the development subject to recommendations herein made. These include heritage-monitoring measures being included in the proposed development EMP.

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Caveat

This Phase 1 A/HIA Report has been prepared for Enaq by M. Murimbika for the expressed purpose to request the KZN Heritage Agency to grant exemption from the any further Archaeological/ Heritage Impact Assessment (A/HIA) studies on the basis that the project will not and has low potential to affect any archaeological or cultural heritage resources in the project area.

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Geographic Co-ordinate Information: Geographic co-ordinates in this report were obtained using a hand-held Garmin Global Positioning System device. The manufacturer states that these devices are accurate to within +/- 5m. Geographic co-ordinates in this report are based on the WGS 84 coordinate system.

Maps: Maps included in this report use data extracted from the NTS Map.

Disclaimer: The Author is not responsible for omissions and inconsistencies that may result from information not available at the time this report was prepared.

The Scoping Heritage Impact Assessment Study incorporating was carried out within the context of cultural heritage resources management as defined by the Amafa KZN and SAHRA Regulations and Guidelines.

Signed by Principle Investigator:



McEdward Murimbika (Ph.D.)

14 August 2013

SUBMISSION STATUS

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DEFINITIONS

The following terms used in this Archaeological /Heritage Impact Assessment are defined in the National Heritage Resources Act [NHRA], Act Nr. 25 of 1999, South African Heritage Resources Agency [SAHRA] Policies as well as the Australia ICOMOS Charter (Burra Charter):

Archaeological Material remains resulting from human activities, which are in a state of disuse and are in, or on, land and which are older than 100 years, including artifacts, human and hominid remains, and artificial features and structures.

1. **Chance Finds** means Archaeological artefacts, features, structures or historical cultural remains such as human burials that are found accidentally in context previously not identified during cultural heritage scoping, screening and assessment studies. Such finds are usually found during earth moving activities such as water pipeline trench excavations.

2.

Compatible use means a use, which respects the cultural significance of a place. Such a use involves no, or minimal, impact on cultural significance.

Conservation means all the processes of looking after a place so as to retain its cultural significance.

3. **Cultural Heritage Resources** Same as **Heritage Resources** as defined and used in the National Heritage Resources Act (Act No. 25 of 1999). Refer to physical cultural properties such as archaeological and palaeontological sites; historic and prehistoric places, buildings, structures and material remains; cultural sites such as places of ritual or religious importance and their associated materials; burial sites or graves and their associated materials; geological or natural features of cultural importance or scientific significance. **Cultural Heritage Resources** also include **intangible resources** such as religion practices, ritual ceremonies, oral histories, memories and indigenous knowledge.

Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

Cultural Significance also encompasses the complexities of what makes a place, materials or intangible resources of value to society or part of, customarily assessed in terms of aesthetic, historical, scientific/research and social values.

4. **Environment**The surroundings within which humans exist and that are made up of: i. the land, water and atmosphere of the earth;

5. ii. micro-organisms, plant and animal life;

6. iii. any part or combination of (i) and (ii) and the interrelationships among and between them; and,

7. iv. the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being. This includes the economic, social, cultural, historical and political circumstances, conditions and objects that affect the existence and development of an individual, organism or group.

8. **Environmental impact assessment**An Environmental Impact Assessment (EIA) refers to the process of identifying, predicting and assessing the potential positive and negative social, economic and biophysical impacts of any proposed project, plan, programme or policy which requires authorisation of permission by law and which may significantly affect the environment. The EIA includes an evaluation of alternatives. As well as recommendations for appropriate mitigation measures for minimising or avoiding negative impacts, measures enhancing the positive aspects of the proposal and environmental management and monitoring measures.

9. **Expansion**means the modification, extension, alteration or upgrading of a facility, structure or infrastructure at which an activity takes place in such a manner that the capacity of the facility or the footprint of the activity is increased;

Fabric means all the physical material of the place including components, fixtures, contents and objects.

GraveA place of interment (*variably referred to as burial*), including the contents, headstone or other marker of such a place, and any other structure on or associated with such place. A grave may occur in isolation or in association with others where upon it is referred to as being situated in a cemetery (*contemporary*) or **Burial Ground**(*historic*).

10. **Heritage impact assessment**(HIA) refers to the process of identifying, predicting and assessing the potential positive and negative cultural, social, economic and biophysical impacts of any proposed project, plan, programme or policy which requires authorisation of permission by law and which may significantly affect the cultural and natural heritage resources. The HIA includes recommendations for appropriate mitigation measures for

minimising or avoiding negative impacts, measures enhancing the positive aspects of the proposal and heritage management and monitoring measures.

Historic Material remains resulting from human activities, which are younger than 100 years, but no longer in use, including artefacts, human remains and artificial features and structures.

Impact The positive or negative effects on human well-being and / or on the environment.

In Situ material Material culture and surrounding deposits in their original location and context, for example an archaeological site that has not been disturbed by farming.

Interested and affected parties Individuals, communities or groups, other than the proponent or the authorities, whose interests may be positively or negatively affected by the proposal or activity and/ or who are concerned with a proposal or activity and its consequences.

Interpretation means all the ways of presenting the cultural significance of a place.

Late Iron Age this period is associated with the development of complex societies and state systems in southern Africa.

11. **Material culture** means buildings, structure, features, tools and other artefacts that constitute the remains from past societies.

Mitigate The implementation of practical measures to reduce adverse impacts or enhance beneficial impacts of an action.

Place means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views.

12. **Protected area** means those protected areas contemplated in section 9 of the NEMPAA and the core area of a biosphere reserve and shall include their buffers;

13. **Public participation process** A process of involving the public in order to identify issues and concerns, and obtain feedback on options and impacts associated with a proposed project, programme or development. Public Participation Process in terms of **NEMA** refers to: a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to specific matters

Setting means the area around a place, which may include the visual catchment.

Significance can be differentiated into impact magnitude and impact significance. Impact magnitude is the measurable change (i.e. intensity, duration and likelihood). Impact significance is the value placed on the change by different affected parties (i.e. level of significance and acceptability). It is an anthropocentric concept, which makes use of value judgments and science-based criteria (i.e. biophysical, physical cultural, social and economic).

Site A distinct spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.

Use means the functions of a place, as well as the activities and practices that may occur at the place.

ABBREVIATIONS

AIA	Archaeological Impact Assessment
C	Contractor
CECO	Construction Environmental Conservation Officer
EAP	Environmental Assessment Practitioner
ECO	Environmental Conservation Officer
EIA	Environmental Impact Assessment
EM	Environmental Manager
EMP	Environmental Management Plan
HIA	Heritage Impact Assessment
LIA	Late Iron Age
NHRA	Nation Heritage Resources Act, Act 25 of 1999
PM	Project Manager
SM	Site Manager
SAHRA	South African Heritage Resources Agency

1. INTRODUCTION

This Archaeological and Heritage Impact Assessment study report has been prepared for EnAq Consulting for evaluation by the KZN heritage agency. The study covered a proposed pipeline servitude project area that will traverse from existing borehole field site north east of Ingwavuma Town centre in the Jozini Municipality area of KwaZulu Natal Province. The pipeline would terminate at a new water reservoir installation site at government facilities in the town centre. This development will also involve development of a sewage treatment plant to the northwest of the correctional services facility on the periphery of the built-up Ingwavuma town area. The HIA study was conducted in line with the National Heritage Resources Act, Act 25 of 1999. The heritage scoping established that the proposed water pipeline would be in part an in situ development along existing pipeline servitude, previously disturbed and heavily degraded rural settlement area with limited potential to impact on significant archaeological or any other physical cultural resources. In part the pipeline servitude traverses through periphery of built up town lands and will terminate at bulk water tank sites in Ingwavuma town. The development also includes development of a new sewage treatment facility on the periphery of government facilities in Ingwavuma town.

In line with Amafa KZN and SAHRA guidelines, this report, not necessarily in that order, provides:

- 1) Management summary
- 2) Methodology
- 3) Information with reference to the desktop study
- 4) Map and relevant geodetic images and data
- 5) GPS co-ordinates
- 6) Directions to the site
- 7) Site description and interpretation of the cultural area where the project will take place
- 8) Management details, description of affected cultural environment, photographic records of the project area
- 9) Recommendations regarding the significance of the site and recommendations regarding further monitoring of the site
- 10) Conclusion.

Therefore, the study focuses on identifying and assessing potential impacts on archaeological resources and physical cultural properties including historical heritage resources in relation to the proposed water treatment and associated pipeline as well as the sewage treatment facilities development and future land use planning (See Figures 1 and 2). It was designed to ensure

that any significant archaeological or cultural physical property or sites are located and recorded, and site significance is evaluated to assess the nature and extent of expected impacts from the antennae installation and associated infrastructure development. The assessment includes recommendations to manage the expected impact of development on the site.

2. STATUTORY REQUIREMENTS

This HIA report addresses the requirements of the as is stipulated in the KZN Heritage Act 4 of 2008 as stipulated NHRA Act 25 of 1999 Section 38 and EIA Terms of Reference in relation to the assessment of impacts of the proposed pipeline development on the cultural and heritage resources associated with the receiving environment. The statutory mandate of heritage impact assessment studies is to encourage and facilitate the protection and conservation of archaeological and cultural heritage sites, in accordance with the provisions of the KZN Heritage Act 4 of 2008, National Heritage Resources Act, Act 25 of 1999 and auxiliary regulations. Therefore, in pre-development context, heritage impact assessment study is conducted to fulfil the requirements of Section 38 (1) of the National Heritage Resources Act (No 25 of 1999).

The legislations requires that when constructing a linear development exceeding 300m in length or developing an area exceeding 5000 m² in extent, the developer must notify the responsible heritage authority of the proposed development and they in turn must indicate within 14 days whether an impact assessment is required. The NHR Act notes that "any comments and recommendations of the relevant heritage resources authority with regard to such development have been taken into account prior to the granting of the consent", the heritage authority here being KZN Provincial Authority (Amafa KwaZulu Natali).

Both the national legislations and provincial provisions provide protection for the following categories of heritage resources:

Landscapes, cultural or natural;

- Buildings or structures older than 60 years;
- Archaeological Sites, palaeontological material and meteorites;
- Burial grounds and graves;
- Public monuments and memorials;
- Living heritage (defined as including cultural tradition, oral history, performance, ritual, popular memory, skills and techniques, indigenous knowledge systems and the holistic approach to nature, society and social relationships).

Furthermore, the proposed development is guided and governed by legislative acts and regulations including environmental, spatial planning, land use and heritage management laws and regulations. The following acts have particular relevance to the management of heritage sites (archaeological, cultural and historical sites) wherever they are found in the Republic:

- Environmental Conservation Act, No.73 of 1989
- National Environment Management Act (NEMA), No.107 of 1998

3. OBJECTIVES AND SCOPE OF HERITAGE IMPACT ASSESSMENT

This Archaeological and Heritage Impact Assessment [A/HIA] study seek to fulfill the partial requirements of Section 38 of the NHRA (Act of 25 1999). The study sought to establish the potential for identifying archaeological and any other heritage resources that may be associated with the proposed water pipeline development. The AIA and HIA study provide guidance to heritage authorities, the developer [represented by EnAq Consulting in te EIA study process], other government agencies and the public on the process for assessment and management of potential adverse impacts to archaeological and or cultural heritage sites that may be associated with the proposed water pipeline.

Therefore, the study primarily seeks to address the applicable regulations in order to facilitate the approval process. The study seeks to:

- Fulfil the statutory requirements of the National Heritage Resources Act, Act 25 of 1999, section 38.
- To identify and describe, (in terms of their conservation and / or preservation importance) sites of cultural and archaeological importance that may be affected by the proposed correctional facilities development. This study should include the identification of gravesites.
- Assess the significance of the resources where they are identified.
- Evaluate the impact thereon with respect to the socio-economic opportunities and benefits that would be derived from the proposed development.
- Make recommendations on mitigation measures with the view to reduce specific adverse impacts and enhance specific positive impacts on the heritage resources.

4. METHODOLOGY

The study method applied in this report refers to the Amafa KwaZulu Natali and SAHRA Policy Guidelines for impact assessment. A primary field survey was conducted covering the accessible sections of the water pipeline route on foot. This was supplemented by additional secondary data from previous studies and EnAq Consulting/BID data. As part of this scoping exercise, the following tasks were conducted: 1) site file search, 2) limited literature review; and for the Phase 1 HIA study the following additional tasks were conducted: 3) completion of a field survey and assessment and 4) analysis of the acquired data and report production. The approach applied sought to fulfil the statutory requirements of the Amafa KZN Act 4 of 2008 and National Heritage Resources Act, Act 25 of 1999 in order to identify and describe, (in terms of their conservation and / or preservation importance) sites of cultural and archaeological importance that may be affected by the proposed water pipeline project. This study should include where appropriate, identify sites and features of traditional historical, social, scientific, cultural and aesthetic significance within the affected study area.

Geographic coordinates were obtained with a handheld Garmin GPS global positioning unit. Photographs were taken as part of the documentation process during field study.

4.1. Limitations

Primary field study was undertaken in preparation of this A/HIA Scoping Report. Detailed use of previous reports done by the author in the project area was accepted as additional way of verifying the field information. The study was carried out within the context of water pipeline servitude, water treatment and sewage treatment facilities planning document provided by EnAq Consulting (Also see Figure 1). The following limitations and assumptions are applicable:

- The proposed Ingwavumawater pipeline development will be limited to specific right of way sites and corridor as detailed in the development layout (Figures 1, 2 & 3).
- The construction team to provide link and access to the water pipeline development sites and service sites will use the existing access roads and there will be no major deviations anticipated.
- Portions of the servitude route were not accessible due to dense vegetation.
- Given the heavily degraded nature on most affected project area (Note that half of the proposed pipeline servitude will run parallel to an existing water pipeline) and the level of existing developments within the affected landscape, most sections of the project area have low potential to yield significant in situ archaeological or physical cultural properties.
- No excavations or sampling were undertaken, since a permit from heritage authorities is required to disturb a heritage resource. As such the results herein discussed are based on

surficially observed indicators. However, these surface observations concentrated on exposed sections such as road cuts and clear farmland.

- No palaeontological survey was conducted.
- This study did not include any ethnographic and oral historical studies nor did it investigate the settlement history of the area.

4.2. Consultation

No independent community consultation was conducted during this phase of the A/HIA study. However, the EIA Public Participation Process invited comments from affected municipalities and other interested parties on any matter related to the proposed development.

4.3. Author Identification

Dr. M. Murimbika prepared this AIA/HIA Report. He is a member of ASAPA and an Accredited Principle Investigator for ASAPA CRM Section (Membership No. 194).

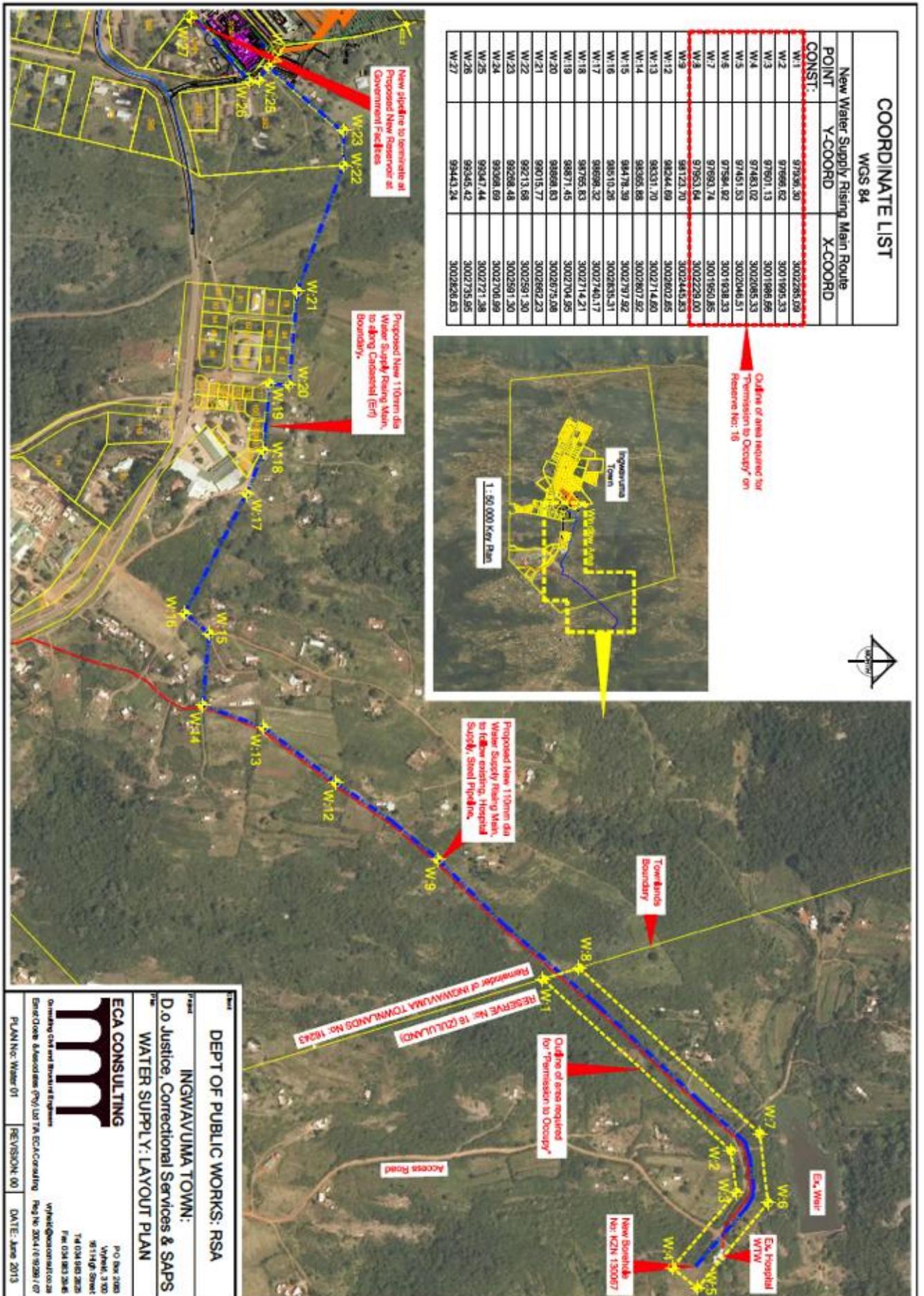


Figure 1: Layout Plan of the proposed Water Pipeline traversing from proposed borehole site to Government facilities in Ingwavuma Town to the west.

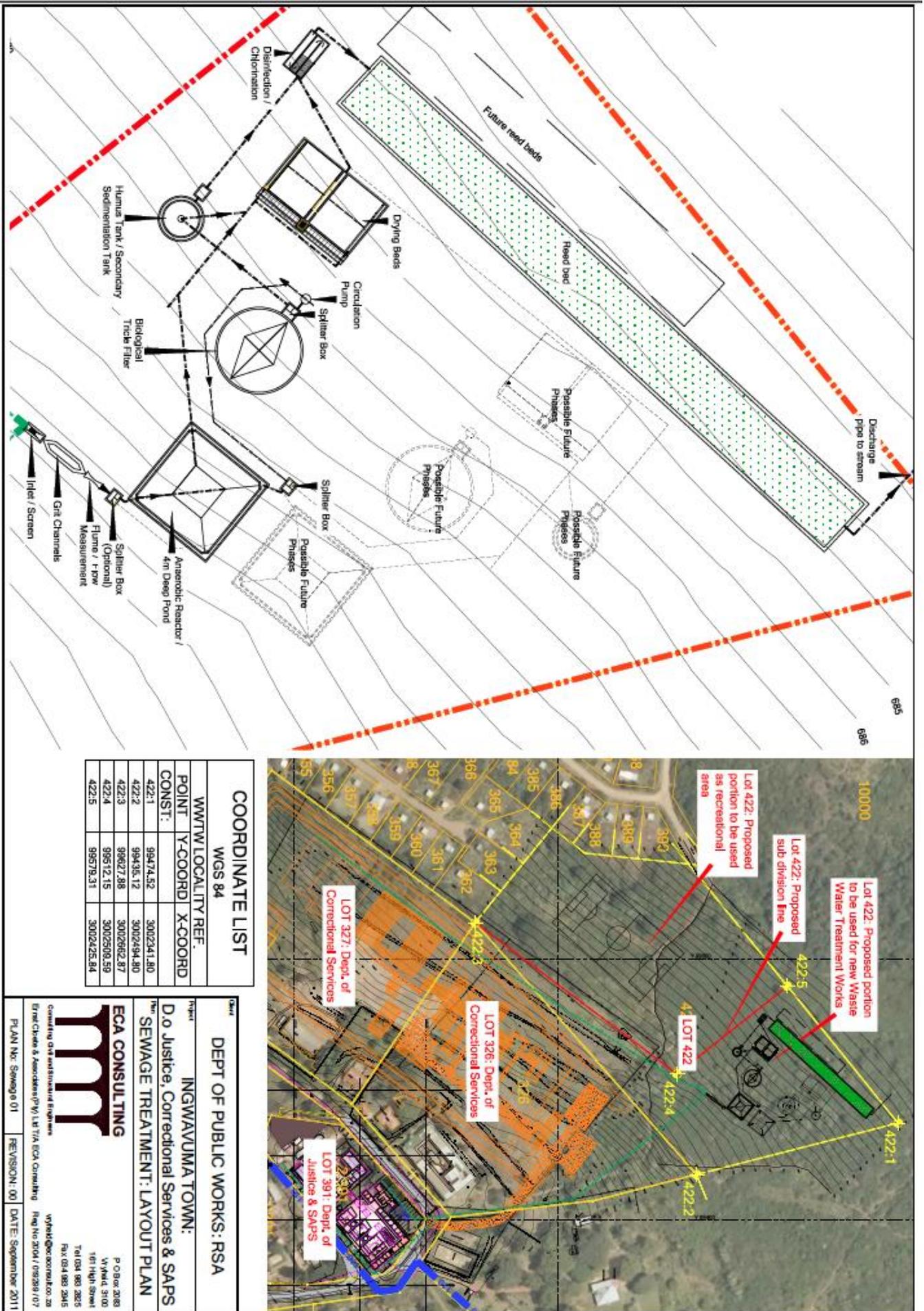


Figure 2: Layout Plan for proposed sewage treatment facility situated on periphery of government facility in Ingwavuma town.

5. RESULTS OF THE DEVELOPMENT SITE SURVEY

5.1. Current Land Use and Description of the Project Site

The project area is located within the Zululand Traditional Authority communal area and the Ingwavuma Townlands in the Jozini Local Municipality, KZN Province. The pipeline will begin from a borehole field to the east situated next to existing boreholes, water treatment facilities and weir dams. The pipeline will run to the westerly direction parallel to an existing water pipeline. This section of the line is characterised by dense vegetation and bush section, grazing lands, rural residential properties and subsistence agricultural field. The section is largely in Zululand traditional authority communal lands. There are limited open land sections that are heavily degraded from current and previous land use activities including the service and access roads and property boundary fence lines (Plates 1-4 and Fig. 1).



Plate 1: Existing borehole field where new borehole will be drilled from which water will be pumped to Ingwavuma town centre.



Plate 2: Existing water treatment facility from where the pipeline will begin.



Plate 3: The pipeline will traverse through sections with dense vegetation and bush.



Plate 4: The Pipeline will traverse from the borehole site and follow existing water pipeline servitude.

PROPOSED DEVELOPMENT: Linear water pipeline development traversing from borehole field site through Zululand communal lands into

Ingwavuma Townlands and terminating at Government Facility in centre of Ingwavuma Town.



Plate 5: Existing water reservoir in Ingwavuma Town Centre with the Prison in the background.

MUNICIPALITY: Jozini Municipality

DEVELOPER: Department of Public Works (RSA) for Department of Justice, Correctional Services and SAPS.

PROPERTY: Remainder of Ingwavuma Townlands No. 16243 and Reserve No. 16 of Zululand Communal Area.

MAP REFERENCE: (See Figure2) 2730



Plate 6: Existing water pipeline drawing water from the weir dam to feed the hospital line.



Plate 7: The project area is an active cultural landscape with a mixture of recent historic homesteads, abandoned sites, and active homesteads.



Plate 8: The pipeline will by-pass built up areas in Ingwavuma town, traversing through the areas in the background of this view.



Plate 9: The Pipeline will approach the government facility area from the northern side into the town from this view and will terminate at a new proposed reservoir to be built within the developed area in government facility area. Note the Prison centres in the background.

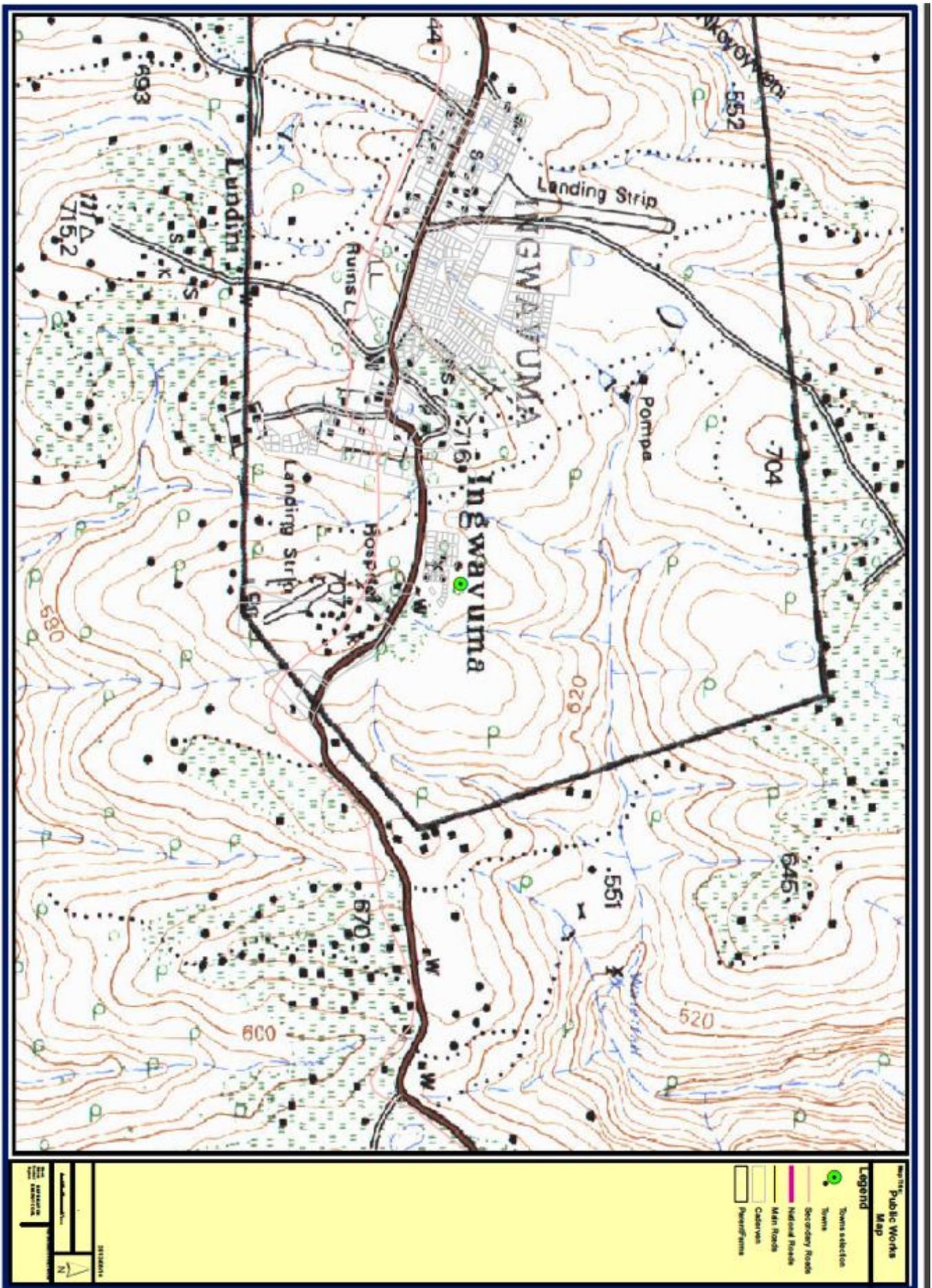


Figure 3: Topographic Map of Ingwavuma Project area.

5.2. Coordinates

- 27° 07' 35.70" S 32° 01' 00.21" E (Borehole field sites where pipeline will begin and run parallel to existing water pipeline).
- 27° 08' 00.70" S; 32° 00' 28.46" E (New Pipeline servitude will split from existing pipeline and will traverse westerly direction towards town area).
- 27° 08' 01.01" S; 31° 59' 4.31" E (Proposed terminal point for water pipeline at new Reservoir at Government Facility in centre of Ingwavuma Town).
- More Y and X coordinates are presented in table below:

Table 1: Y and X coordinates marking the servitude of the new Water Supply Rising Main Route (Source: Ingwavuma Water Pipeline Lay Out Plan by ECA Consulting, June 2013).

COORDINATE LIST		
WGS 84		
New Water Supply Rising Main Route		
POINT	Y-COORD	X-COORD
CONST:		
W:1	97936.30	3002285.09
W:2	97666.62	3001995.33
W:3	97601.13	3001986.66
W:4	97483.02	3002085.33
W:5	97451.53	3002046.51
W:6	97584.92	3001938.33
W:7	97693.74	3001950.85
W:8	97953.64	3002229.00
W:9	98123.70	3002445.83
W:12	98244.69	3002602.65
W:13	98331.70	3002714.60
W:14	98365.88	3002807.92
W:15	98478.39	3002797.92
W:16	98510.26	3002835.31
W:17	98698.32	3002740.17
W:18	98765.83	3002714.21
W:19	98871.45	3002704.95
W:20	98868.83	3002675.08
W:21	99015.77	3002662.23
W:22	99213.68	3002591.30
W:23	99268.48	3002591.30
W:24	99368.69	3002706.99
W:25	99347.44	3002721.38
W:26	99345.42	3002735.95
W:27	99443.24	3002826.63

5.3. Description of Pipe Line Route



Figure 4: Aerial view of Ingwavuma Project area illustration the existing developments, roads, build up areas and forestlands in the project area.

The proposed water pipeline will begin from an existing borehole field where new additional borehole(s) would be drilled next to existing boreholes, water treatment facility and weir dams. The new water pipeline will run parallel to existing pipeline in the southwestern direction through dense vegetation sections, grazing areas, old cultivation fields and steep hill slopes within the Zululand communal area. Where the line crosses into Ingwavuma Townlands, it will continue running parallel an existing water pipeline though rural residential and small farm steads and agricultural fields. The new pipeline will turn toward the western direction splitting from the existing pipeline servitude. It will run through periphery of built up areas of Ingwavuma town and terminate at proposed new Reservoir site situated within built up area in centre of Ingwavuma town government facility. The proposed sewage treatment facility is situated on the periphery on the government facility built up area northwest of the Ingwavuma Correctional facility.

5.4. Historical And Recent Sites

Generically speaking, historic sites are associated with white settlers, colonial wars, industrialization; recent and contemporary African population settlements, contemporary ritual sites dating to the last hundred years. None were recorded on or along water pipeline servitude. Although the affected general landscape is associated with broader historical events such as Zulu Cultural Groups, historic white settler migration, colonial wars and the recent African peopling of the region, no listed specific historical sites are on the direct path of the proposed development sites. Abandoned historic remains of recent homesteads were observed within the village settlements but not within or near the proposed water pipeline servitude. No specific contemporary sites were surveyed or documented in any details because they retain no cultural or social significance from a heritage management perspective (see Plate 6 for example of contemporary or recently abandoned historic sites with no heritage significance).

5.5. Archaeological And Heritage Site Remains

No archaeological sites or materials were recorded along the water pipeline servitude within the Zululand servitude sections. The project area portions accessed were degraded for any archaeological material to be found *in situ*. This is especially so given the fact that there is an existing water pipeline along this servitude.

The survey of Townlands portions earmarked for the proposed water pipeline development did not yield any significant archaeological sites on any of the affected locations. The affected landscaped is heavily degraded from previous and current land use patterns. There do exist *in situ* commercial buildings, access roads, residential areas, agricultural fields, powerlines, and associated infrastructure including office buildings, government buildings, in the vicinity of the project site. As such the chances of recovering significant archaeological materials *in situ*, particularly open settlement sites, were seriously compromised and limited. If such sites existed on this particular project area, they may have been destroyed over the land use history and other destructive land use patterns such as surface and subsurface construction that have affected and significantly altered the affected portions of the project area prior to this proposed development project.

However, it is important to note that some sections of the servitude route were not accessible due to dense vegetation which limited foot surveying.



Plate 10: The proposed pipeline servitude traverses both disturbed and dense vegetated section some of which were not accessible during the survey.



Plate 11: Significant section of project area earmarked for sewage water treatment facilities is currently covered in thick vegetation which limited total ground surface survey.

5.6. Burial Ground/ Graves

No grave or burial grounds were recorded on site or in vicinity of the servitude. However, the entire project area is an active cultural landscape with both historic and contemporary settlements and sites including burial grounds and cemeteries. None of these are on the direct path of the proposed pipeline route.

Previously unidentified burial sites/graves – In any development context, it is critical to note that there is always a possibility of encountering human remains anywhere on the landscape – finds

are made on construction sites from time to time, but again the chances are considered to be high for this development. Although the possibility of encountering previously unidentified burial sites is limited on the project sites, should such sites be identified during subsurface construction work, they are still protected by applicable legislations and they should be protected (also see Appendixes 1 to 3 for more details).



Plate 12: There are active burial grounds and cemetery along sections of the servitude. However, none of the burial grounds is on direct path of proposed development.

5.7. National /Provincial Monuments

There are no listed monuments in the affected area.

5.8. Landmarks

None were identified or are on record in the project area and milieu.

5.9. Natural Heritage Resources

None will be affected by the water pipeline development. However, any protected tree species that may be on record or identified in the project may not be disturbed without following the relevant applicable processes as may be detailed in the project EIAR and EMP.

5.10. Cultural landscapes

Within the neighbouring landscapes there are established rural and rural townland settlements associated with Ingwavuma area. There are other active subsistence and small scale agricultural farms and irrigation facilities. These features may not be all that old, but some of the existing farm and urban settlement structures and infrastructures are likely more than 60 years of age. However, none of these built up areas are affected by the proposed pipeline development.



Plate 13: significant sections of the pipeline servitude are used for grazing. Once the pipe is laid underground and the ground may be rehabilitated to allow the pasture to grow back.

6. DISCUSSION

The following observations are worthy emphasising in this discussion prior to making final recommendations:

The water pipeline route is situated within a degraded area where it runs parallel to existing water pipeline, and have reduced sensitivity for the presence of high significance physical cultural site remains, be they archaeological, historical or burial sites, due to previous agricultural activities, settlement developments and associated infrastructures, earth moving disturbances resulting from developments and other land uses in the project area.

Scatters of undiagnosed potsherds were recorded within sections of the proposed pipeline servitude, but the proposed project is unlikely to affect any discernable archaeological site. The following observations are worthy of emphasising in this discussion prior to making final recommendations:

That the survey focused on accessible sections of the servitude that had high potential to yield possible archaeological sites. Due to the geography of the project area, it was impractical to cover every inch of servitude zone project site. As such, there is the possibility that previously unknown low to medium archaeological sites may exist in the project area whereas the sampled sections fell outside sections with such potential distinct archaeological sites given the observation that parts of the servitude are covered by dense bushy vegetation.

Limited ground surface visibility on sections of the project area that were not cleared at the time of the study may have impeded the detection of other physical cultural heritage site remains or archaeological signatures immediately associated with the site of interest.

The absence of confirmable archaeological cultural heritage sites is not evidence in itself that such in situ sites did not exist in the project area. It may be that, given the dense development in most sections of the pipeline route, if such sites existed before, changing earth-moving activities may have destroyed their surficial evidence. Furthermore, some sections were not accessible due to thick vegetation cover. Significance of the Sites of Interest (proposed pipeline route) is not limited to presence or absence of physical archaeological sites.

7. CULTURAL HERITAGE SITE ASSESSMENT OF SIGNIFICANCE

The appropriate management of cultural heritage resources is usually determined on the basis of their assessed significance as well as the likely impacts of any proposed developments. Cultural significance is defined in the Burra Charter as meaning aesthetic, historic, scientific or social value for past, present or future generations (Article 1.2). Social, religious, cultural and public significance are currently identified as baseline elements of this assessment, and it is through the combination of these elements that the overall cultural heritage values of the site of interest, associated place or area are resolved. Not all sites are equally significant and not all are worthy of equal consideration and management. The significance of a place is not fixed for all time, and what is considered of significance at the time of assessment may

change as similar items are located, more research is undertaken and community values change.

The above observation does not lessen the value of the heritage approach, but enriches both the process and the long-term outcomes for future generations as the nature of what is conserved and why, also changes over time (Pearson and Sullivan 1995:7). This assessment of the Indigenous cultural heritage significance of the Site of Interest as its environments of the study area is based on the views expressed by the Claimant and his community representatives consulted documentary review and physical integrity. African indigenous cultural heritage significance is not limited to items, places or landscapes associated with pre-European contact. Indigenous cultural heritage significance is understood to encompass more than ancient archaeological sites and deposits, broad landscapes and environments. It also refers to sacred places and story sites, as well as historic sites, including mission sites, memorials, and contact sites. This can also refer to modern sites with particular resonance to the indigenous community. The site of interest considered in this project falls within this realm of broad significance.

7.1. Assessment Criteria

The Guidelines to the SAHRA Guidelines and the Burra Charter define the following criterion for the assessment of cultural significance:

7.2. Aesthetic Value

Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture and material of the fabric; sense of place, the smells and sounds associated with the place and its use.

7.3. Historic Value

Historic value encompasses the history of aesthetics, science and society, and therefore to a large extent underlies all of the terms set out in this section. The overall Ingwavumaregion as a place have historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the settings are substantially intact, than where it has been

changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment.

7.4. Scientific value

The scientific or research value of a place will depend upon the importance of the data involved, on its rarity, quality or representativeness, and on the degree to which the place may contribute further substantial information. Scientific value is also enshrined in natural resources that have significant social value. For example, pockets of forests and bushvelds have high ethnobotany value.

7.5. Social Value

Social value embraces the qualities for which a place has become a focus of spiritual, religious, political, local, national or other cultural sentiment to a majority or minority group. Social value also extend to natural resources such as bushes, trees and herbs that are collected and harvested from nature for herbal and medicinal purposes.



Plate 14: Some trees along the pipeline route retain social significance and sources of traditional medicines and as ritual sites.

8. STATEMENT OF SIGNIFICANCE

8.1. Aesthetic Value

The aesthetic values of the HIA Study Area are contained in the environment and landscape typical of this part of the Northern KZN Province. The visual and physical relationship between HIA study area and the surrounding historical Cultural Landscape demonstrates the connection of place to the local and oral historical stories of the African communities who populated this region going back into prehistory.

The proposed pipeline development will be situated within an environment and associated cultural landscape, which, although developed by existing settlements, remains representative of the original historical environment and cultural landscape of this part of KZN area. The local communities consider the project area a cultural landscape linked to their ancestors and history. However, the proposed developments will not alter this aesthetic value in any radical way since it will add to the constantly changing and developing settlements specially given the fact that the pipeline will be subsurface in most parts.

Table 2: Assessment of impacts to Aesthetic Values related to the scenic routes and sense of place

	Before Mitigation	After Mitigation
Magnitude	Low	NA
Extent Local -	Local	NA
Duration Long term -	Long term	NA
Significance	Low -	NA
Probability	Definite -	NA
Status	Negative -	NA
Reversible	Yes (with rehabilitation after the pipeline installation is complete)	NA
Cumulative	None (pipeline will be buried subsurface)	

8.2. Historic Value

The historic values of the site under development are imbedded in the overall Ingwavuma area. These are contained in the possible historic homesteads, the old government facilities such as the Ingwavuma Prison, graves and shrines being located on in the town of Ingwavuma. There are no such historic relics on the site affected with development. Therefore such history goes back to the pre-colonial period, through the colonial era, the colonial wars and subsequent colonial rule up to modern day northern KZN.

Table 3: Assessment of impacts to Historic Values related to the project area.

	Before Mitigation	After Mitigation
Magnitude	Low	Low
Extent Local -	Specific Site	Specific Site
Duration Long term -	Long term	Long term
Significance	Low -	Low -
Probability	Low -	Probable
Status	Negative -	Negative -
Reversible	Yes (when pipeline construction is complete)	No
Cumulative	No historic or historic archaeology sites will be affected by this development. However, there are similar developments in the region that may affected significant sites which will lead to permanent loss of physical cultural property record of the region.	

8.3. Scientific (Archaeological) value

Past settlements and associated roads, and other auxiliary infrastructure developments and disturbance within the HIA study area associated with the proposed pipeline servitude have resulted in limited intact significant cultural landscapes. As such the borehole field area and the pipeline servitude project area has low potential to retain intact significant archaeological site deposits. However, should intact archaeological sites be recorded within the area and immediate surrounding areas, they may retain scientific evidence that may add value to the local and regional history.

The area earmarked for the sewage water treatment facility was not inspected in detail due to the limitation of vegetation cover. However, the area has potential to yield archaeological remains similar to the sites on record west of Ingwavuma government precinct (See figure 3 which show marking of ruins in area).

Table 4: Assessment of impacts to Archaeological Scientific Values related to the project area.

	Before Mitigation	After Mitigation
Magnitude	Low	NA
Extent Local -	Specific Site	NA
Duration Long term -	Long term	NA
Significance	Low -	NA
Probability	Definite -	NA
Status	Negative -	NA
Reversible	No, archaeological sites are none renewable and may not be restored	NA
Cumulative	There are no archaeological resources falling within the borehole and water pipeline project area. Since no significant pre-colonial resources occur, cumulative impacts are thus not of concern on this site. There are other significant archaeological sites in the region that may be protected for archaeological and scientific reasons. However, the sewage water treatment facility area has potential to yield archaeological remains. If these exist, they may be destroyed by the development.	

8.4. Social Value

The project sites fall within a larger and an extensive northern KZN cultural landscape that is integrated with the wider inland and coastal northeast KNZ region. The overall area has social value for the local community, as is the case with any populated landscape. The land provides the canvas upon which daily socio-cultural activities are painted. The remains of historic homesteads that are found around the project area testify to the fact of generational homes and settlements. All these factors put together confirms the social significance of the project area. However, this social significance is not going to be negatively impacted by the proposed Water Pipeline development especially given the fact that the development will add value to the human settlements and activities already taking place. In addition the area is already affected by development and this project is an addition to what already existing infrastructure such as roads, public building, business centres and agricultural fields.

Sections of the water pipeline servitude covered in thick bushes and vegetation retain social value as sources of important herbs and traditional medicines. As such, they must be considered as medium significant social value sites.

9. RECOMMENDATIONS

It is recommended to the heritage authority that the development be cleared to proceed subject to specified recommendations made in the following sections. The following recommendations are based on the results of the A/HIA research, cultural heritage background review, site inspection and assessment of significance.

10. Management & Policy Recommendations

10.1. Community Advisory

Should community consultations being held through the project EIA PPP refer to any cultural issues associated with the project area, such matters should be addressed adequately. The proposed water pipeline is associated with existing Ingwavuma communities and a heritage or cultural aspirations they have that may potentially be affected by the development should be acknowledged should they be identified in the course of the proposed development. To date, the PPP consultation process has not identified cultural heritage contestation to the project.

Recommendation 1

The Project Public Participation Process should ensure that any cultural heritage related matter for this project is given due attention whenever it arises and is communicated KNZ PHRA throughout the proposed project development. This form of extended community involvement would pre-empt any potential disruptions that may arise from previously unknown cultural heritage matter that may have escaped the attention of this study.

10.2. Archaeological Graves and Burial & Cultural Heritage Sites

No intact surface archaeological heritage deposits were recorded within the borehole filed and water pipeline servitude study area. Therefore no direct conflicts between archaeological sites and the proposed development are anticipated when construction begins. Similarly, the water reservoir installation site is situated in an already developed area where there is limited chance of recovering any in situ archaeological remains. The area earmarked for the sewage treatment facility is currently covered in dense vegetation. Effective ground surface survey was limited.

Recommendation 2

A heritage-monitoring plan herein presented should be incorporated into the project EMP for the construction period of the water pipeline. This would be a cautionary measure to ensure that should any subsurface archaeological materials be unearthed, appropriate rescue or salvage operations would be implemented. Furthermore, since the area earmarked for the sewage treatment facility was not fully accessible due to vegetation cover, it is recommended that the area be inspected by an archaeologist once the vegetation is clear and before earth moving activities are conducted. Archaeological sites are recorded on the area west of government facilities (see ruins marked on map in Figure 3). Although these specific sites are outside the development project area, they do fall within similar cultural landscape which suggest that the area affected by the sewage treatment plant has potential to yield archaeological site remains once the area is cleared.

Recommendation 3

From a heritage point of view project site is feasible. However, the proposed water pipeline development should be approved to proceed as planned under observation that construction work does not extend beyond the surveyed servitude and previously disturbed areas. The foot print impact of the proposed Water Pipeline development and associated

infrastructure should be kept to minimal to limit the possibility of encountering chance finds within servitude and surrounded areas around the Water Pipelineservitude.

Recommendation 4

In situations where unpredicted impacts occur (such as accidentally disturbing a previously unknown grave or discovering previously unrecorded archaeological remains on development site), construction activities should be stopped and the heritage authority notified immediately. In the unlikely event of chance archaeological material or previously unknown human remains being disturbed during subsurface construction, the finds should be left in situ subject to further instruction from the project archaeologist or heritage authorities (refer to Appendixes 1 - 3 for additional details). The overriding objective, where remedial action is warranted, is to minimize disruption in construction scheduling while recovering archaeological and any affected cultural heritage data as stipulated by the KZN PHRA and NHRA regulations.

The area earmarked for the installation of sewage water treatment facility should be re-surveyed for archaeological remains once the area is cleared for development. Should archaeological remains be identified during the development activities, such materials should be recorded and catalogued prior to total destruction.

A professional archaeologist should be retained to monitor all significant earth moving activities that may be implemented as part of the proposed Water Pipeline development on sections where suspected archaeological materials or remains may be underneath. The monitoring process would ensure that should any archaeological or human remains be disturbed during subsurface construction work at the Sites of Interest, immediate remedial rescue and salvage work would be actioned without delay.

The recommended heritage monitoring operations for both the borehole field, pipeline and sewage treatment facility developments will not stop work but will form part of the proposed project's construction EMP in line with best-practice heritage procedures.

10.3. Interpretation & Active Management Recommendations

The local communities have a long and significant connection with project area. Like any other generational society, there are several other cultural activities that take place within the affected settlement areas associated with the proposed Water Pipeline development.

Recommendation 5

Although the possibility of conflict between the community and the proposed development related to culture heritage is unlikely, KZN PHRA should acknowledge on behalf of the community, that the project area is situated in a culturally significant landscape associated with local history and cultural activities. KZN PHRA may also acknowledge that such significance is not tied to physical sites or archaeological sites only, but to intangible heritage such as popular memories, oral history, ancestral remembrance, religious rituals, aesthetic appreciations, living experiences and folklores. As such, the community retains the right to have their constitutionally guaranteed cultural heritage rights respected and protected without being limited to existence of physical evidence such as archaeological sites. Should heritage issues arise in association with this proposed development, the proponent, KZN PHRA and community to address them should devote adequate attention?

Recommendation 6

Subject to the recommendations herein made, there are no significant cultural heritage resources barriers to the proposed Water Pipeline development in the Ingwavuma area of KwaZulu Natal Province. The KZN PHRA may approve the proposed development to proceed as planned with special commendations to implement the recommendations here in made.

11. CONCLUDING REMARKS

The literature review and field research confirmed that the project area is situated within a contemporary cultural landscape dotted with settlements with long local history. Field survey was conducted during which it was established that the affected project area is degraded by existing and previous land use activities and developments. Although the area is degraded, there is a possibility that the HIA Study Area Site of Interest is part of a wider archaeological and historical site within and significant cultural landscape. Although historical and contemporary cultural sites exist in the neighbouring farmlands, none were recorded within the borehole field; water treatment and pipeline facilities project area that retained any known heritage significance that may directly be affected by the proposed developments. This

report concludes that the proposed borehole and water treatment facilities, the associated Water Pipeline development and the sewage water treatment facility may be approved by Amafa KwaZulu Natali PHRA to proceed as planned. The approval should be subject to recommendations herein made which include conditional inclusion of construction phase heritage monitoring measures in the project EMP (also see Appendices) specially to ensure the sewage treatment plant site is further investigated once it is cleared of dense vegetation prior to full sub-surface construction activities during the development.

It is the recommendation of this study that the Department of Public Works be granted permission to proceed with development as proposed.

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13. APPENDIX1-3

13.1. HUMAN REMAINS AND BURIALS IN DEVELOPMENT CONTEXT

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Developers, land use planners and professional specialist service providers often encounter difficult situations with regards to burial grounds, cemeteries and graves that may be encountered in development contexts. This may be before or during a development project. There are different procedures that need to be followed when a development is considered on an area that will impact upon or destroy existing burial grounds, cemeteries or individual graves. In contexts where human remains are accidentally found during development work such as road construction or building construction, there are different sets of intervention regulations that should be instigated. This brief is an attempt to highlight the relevant regulations with emphasis on procedures to be followed when burial grounds, cemeteries and graves are found in development planning and development work contexts. The applicable regulations operate within the national heritage and local government legislations and ordinances passed in this regard. These guidelines assist you to follow the legal pathway.

1. First, establish the context of the burial:

A. Are the remains less than 60 years old? If so, they may be subject to provisions of the Human Tissue Act, Cemeteries Ordinance(s) and to local, regional, or municipal regulations, which vary from place to place. The finding of such remains must be reported to the police but are not automatically protected by the National Heritage Resources Act (Act 25 of 1999).

B. Is this the grave of a victim of conflict? If so, it is protected by the National Heritage Resources Act (Section 36(3a)). (Relevant extracts from the Act and Regulations are included below).

C. Is it a grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority? If so, it is protected by the National Heritage Resources Act (Section 36(3b)).

D. Are the human or hominid remains older than 100 years? If so, they are protected by the National Heritage Resources Act (Section 35(4), see also definition of "archaeological" in Section 2).

2. Second, refer to the terms of the National Heritage Resources Act most appropriate to the situation, or to other Acts and Ordinances:

A. Human remains that are NOT protected in terms of the National Heritage Resources Act (i.e. less than 60 years old and not a grave of a victim of conflict or of cultural significance) are subject to provisions of the Human Tissue Act and to local and regional regulations, for example Cemeteries Ordinances applicable in different Provincial and local Authorities.

B). All finds of human remains must be reported to the nearest police station to ascertain whether or not a crime has been committed.

C). If there is no evidence for a crime having been committed, and if the person cannot be identified so that their relatives can be contacted, the remains may be kept in an institution where certain conditions are fulfilled. These conditions are laid down in the Human Tissue Act (Act No. 65 of 1983). In contexts where the local traditional authorities given their consent to the unknown remains to be re-buried in their area, such re-interment may be conducted under the same regulations as would apply for known human remains.

3. In the event that a graveyard is to be moved or developed for another purpose, it is incumbent on the local authority to publish a list of the names of all the persons buried in the graveyard if there are gravestones or simply a notification that graves in the relevant graveyard are to be disturbed. Such a list would have to be compiled from the names on the gravestones or from parish or other records. The published list would call on the relatives of the

deceased to react within a certain period to claim the remains for re-interment. If the relatives do not react to the advertisement, the remains may be re-interred at the discretion of the local authority.

A. However, it is the responsibility of the developer to ensure that none of the affected graves within the cemetery are burials of victims of conflict. The applicant is also required in line with the heritage legislation to verify that the graves have no social significance to the local communities.

B. It is illegal in terms of the Human Tissue Act for individuals to keep human remains, even if they have a permit, and even if the material was found on their own land.

4. The Exhumations Ordinance (Ordinance No. 12 of 1980 and as amended) is also relevant. Its purpose is "To prohibit the desecration, destruction and damaging of graves in cemeteries and receptacles containing bodies; to regulate the exhumation, disturbance, removal and re-interment of bodies, and to provide for matters incidental thereto". This ordinance is supplemented and supported by local authorities regulations, municipality by-laws and ordinances.

DEFINITIONS AND APPLICABLE REGULATIONS

1). A "Cemetery" is defined as any land, whether public or private, containing one or more graves.

2). A "grave" includes "(a) any place, whether wholly or partly above or below the level of ground and whether public or private, in which a body is permanently interred or intended to be permanently interred, whether in a coffin or other receptacle or not, and (b) any monument, tombstone, cross, inscription, rail, fence, chain, erection or other structure of whatsoever nature forming part of or appurtenant to a grave.

3). No person shall desecrate, destroy or damage any grave in a cemetery, or any coffin or urn without written approval of the Administrator.

4). No person shall exhume, disturb, remove or re-inter anybody in a cemetery, or any coffin or urn without written approval of the Administrator.

5). Application must be made for such approval in writing, together with:

a). A statement of where the body is to be re-interred.

b). Why it is to be exhumed.

c). The methods proposed for exhumation.

d). Written permission from local authorities, nearest available relatives and their religious body owning or managing the cemetery, and where all such permission cannot be obtained, the application must give reasons why not.

6). The Administrator has the power to vary any conditions and to impose additional conditions.

7). Anyone found guilty and convicted is liable for a maximum fine of R200 and maximum prison sentence of six months.

5. Human remains from the graves of victims of conflict, or any burial ground or part thereof which contains such graves and any other graves that are deemed to be of cultural significance may not be destroyed, damaged, altered, exhumed or removed from their original positions without a permit from the National Heritage Resources Agency. They are administered by the Graves of Conflict Division at the SAHRA offices in Johannesburg.

"Victims of Conflict" are:

a). Those who died in this country as a result of any war or conflict but excluding those covered by the Commonwealth War Graves Act, 1992 (Act No. 8 of 1992).

b). Members of the forces of Great Britain and the former British Empire who died in active service before 4 August 1914.

c). Those who, during the Anglo Boer War (1899-1902) were removed from South Africa as prisoners and died outside South Africa, and,

d). Those people, as defined in the regulations, who died in the "liberation struggle" both within and outside South Africa.

6. Any burial that is older than 60 years, which is outside a formal cemetery administered by a local authority, is protected in terms of Section 36(3b) of the National Heritage Resources Act. No person shall destroy, damage, alter, exhume or remove from its original position, remove from its original site or export from the Republic any such grave without a permit from the SAHRA.

There are some important new considerations applicable to B & C (above).

SAHRA may, for various reasons, issue a permit to disturb a burial that is known to be a grave of conflict or older than 65 years, or to use, at a burial ground, equipment for excavation or the detection or the recovery of metals.

(Permit applications must be made on the official form Application for Permit: Burial Grounds and Graves available from SAHRA or provincial heritage resources authorities.) Before doing so, however, SAHRA must be satisfied that the applicant:

- a). Has made satisfactory arrangements for the exhumation and re- interment of the contents of such a grave at the cost of the applicant.
- b). Has made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such a grave and,
- c). Has reached an agreement with these communities and individuals regarding the future of such a grave or burial ground.

PROCEDURE FOR CONSULTATION

The regulations in the schedule describe the procedure of consultation regarding the burial grounds and graves. These apply to anyone who intends to apply for a permit to destroy, damage, alter, remove from its original position or otherwise disturb any grave or burial ground older than 60 years that is situated outside a formal cemetery administered by a local authority. The applicant must make a concerted effort to identify the descendants and family members of the persons buried in and/or any other person or community by tradition concerned with such grave or burial ground by:

- 1). Archival and documentary research regarding the origin of the grave or burial ground;
- 2). Direct consultation with local community organizations and/or members;
- 3). The erection for at least 60 days of a notice at the grave or burial ground, displaying in all the official languages of the province concerned, information about the proposals affecting the site, the telephone number and address at which the applicant can be contacted by any interested person and the date by which contact must be made, which must be at least 7 days after the end of the period of erection of the notice; and
- 4). Advertising in the local press.

The applicant must keep records of the actions undertaken, including the names and contact details of all persons and organizations contacted and their response, and a copy of such records must be submitted to the provincial heritage resources authority with the application.

Unless otherwise agreed by the interested parties, the applicant is responsible for the cost of any remedial action required.

If the consultation fails to reach an agreement, the applicant must submit records of the consultation and the comments of all interested parties as part of the application to the provincial heritage resources authority.

In the case of a burial discovered by accident, the regulations state that when a grave is discovered accidentally in the course of development or other activity:

- a). SAHRA or the provincial heritage resources authority (or delegated representative) must, in co-operation with the Police, inspect the grave and decide whether it is likely to be older than 60 years or otherwise protected in terms of the Act; and whether any further graves exist in the vicinity.
- b). If the grave is likely to be so protected, no activity may be resumed in the immediate vicinity of the grave, without due investigation approved by SAHRA or the provincial heritage resources authority; and
- c). SAHRA or the provincial heritage resources authority may at its discretion modify these provisions in order to expedite the satisfactory resolution of the matter.
- d). Archaeological material, which includes human and hominid remains that are older than 100 years (see definition in section 2 of the Act), is protected by the National Heritage

Resources Act (Section 35(4)), which states that no person may, without a permit issued by the responsible heritage resources authority - destroy, damage, excavate, alter or remove from its original site any archaeological or palaeontological material.

The implications are that anyone who has removed human remains of this description from the original site must have a permit to do so. If they do not have a permit, and if they are convicted of an offence in terms of the National Heritage Resources Act as a result, they must be liable to a maximum fine of R100 000 or five years imprisonment, or both.

TREAT HUMAN REMAINS WITH RESPECT

- a). Every attempt should be made to conserve graves in situ. Graves should not be moved unless this is the only means of ensuring their conservation.
- b). The removal of any grave or graveyard or the exhumation of any remains should be preceded by an historical and archaeological report and a complete recording of original location, layout, appearance and inscriptions by means of measured drawings and photographs. The report and recording should be placed in a permanent archive.
- c). Where the site is to be re-used, it is essential that all human and other remains be properly exhumed and the site left completely clear.
- d). Exhumations should be done under the supervision of an archaeologist, who would assist with the identification, classification, recording and preservation of the remains.
- e). No buried artifacts should be removed from any protected grave or graveyard without the prior approval of SAHRA. All artifacts should be re-buried with the remains with which they are associated. If this is not possible, proper arrangements should be made for the storage of such relics with the approval of SAHRA.
- f). The remains from each grave should be placed in individual caskets or other suitable containers, permanently marked for identification.
- g). The site, layout and design of the area for re-interment should take into account the history and culture associated with, and the design of, the original grave or graveyard.
- h). Re-burials in mass graves and the use of common vaults are not recommended.
- i). Remains from each grave should be re-buried individually and marked with the original grave markers and surrounds.
- j). Grouping of graves, e.g. in families, should be retained in the new layout.
- k). Material from the original grave or graveyard such as chains, kerbstones, railing and should be re-used at the new site wherever possible.
- l). A plaque recording the origin of the graves should be erected at the site of re-burial.
- m). Individuals or groups related to the deceased who claim the return of human remains in museums and other institutions should be assisted to obtain documentary proof of their ancestral linkages.

13.2. Legal Back Ground And Principles Of Heritage Resources Management In South Africa

Extracts relevant to this report from the National Heritage Resources Act No. 25 of 1999, (Sections 5, 36 and 47):

General principles for heritage resources management

5. (1) All authorities, bodies and persons performing functions and exercising powers in terms of this Act for the management of heritage resources must recognise the following principles:

(a) Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and as they are valuable, finite, non-renewable and irreplaceable they must be carefully managed to ensure their survival;

(b) every generation has a moral responsibility to act as trustee of the national heritage for succeeding generations and the State has an obligation to manage heritage resources in the interests of all South Africans;

(c) heritage resources have the capacity to promote reconciliation, understanding and respect, and contribute to the development of a unifying South African identity; and

(d) heritage resources management must guard against the use of heritage for sectarian purposes or political gain.

(2) To ensure that heritage resources are effectively managed—

(a) the skills and capacities of persons and communities involved in heritage resources management must be developed; and

(b) provision must be made for the ongoing education and training of existing and new heritage resources management workers.

(3) Laws, procedures and administrative practices must—

(a) be clear and generally available to those affected thereby;

(b) in addition to serving as regulatory measures, also provide guidance and information to those affected thereby; and

(c) give further content to the fundamental rights set out in the Constitution.

(4) Heritage resources form an important part of the history and beliefs of communities and must be managed in a way that acknowledges the right of affected communities to be consulted and to participate in their management.

(5) Heritage resources contribute significantly to research, education and tourism and they must be developed and presented for these purposes in a way that ensures dignity and respect for cultural values.

(6) Policy, administrative practice and legislation must promote the integration of heritage resources conservation in urban and rural planning and social and economic development.

(7) The identification, assessment and management of the heritage resources of South Africa must—

(a) take account of all relevant cultural values and indigenous knowledge systems;

(b) take account of material or cultural heritage value and involve the least possible alteration or loss of it;

(c) promote the use and enjoyment of and access to heritage resources, in a way consistent with their cultural significance and conservation needs;

(d) contribute to social and economic development;

(e) safeguard the options of present and future generations; and

(f) be fully researched, documented and recorded.

Burial grounds and graves

36. (1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.

(2) SAHRA must identify and record the graves of victims of conflict and any other graves which it deems to be of cultural significance and may erect memorials associated with the grave referred to in subsection (1), and must maintain such memorials.

(3) (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority—

(a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

(b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

(c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.

(4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction or damage of any burial ground or grave referred to in subsection (3)(a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.

(5) SAHRA or a provincial heritage resources authority may not issue a permit for any activity under subsection (3)(b) unless it is satisfied that the applicant has, in accordance with regulations made by the responsible heritage resources authority—

(a) made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such grave or burial ground; and

(b) reached agreements with such communities and individuals regarding the future of such grave or burial ground.

(6) Subject to the provision of any other law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority—

(a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and

(b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the contents of such grave or, in the absence of such person or community, make any such arrangements as it deems fit.

(7) (a) SAHRA must, over a period of five years from the commencement of this Act, submit to the Minister for his or her approval lists of graves and burial grounds of persons connected with the liberation struggle and who died in exile or as a result of the action of State security forces or agents provocateur and which, after a process of public consultation, it believes should be included among those protected under this section.

(b) The Minister must publish such lists as he or she approves in the Gazette.

(8) Subject to section 56(2), SAHRA has the power, with respect to the graves of victims of conflict outside the Republic, to perform any function of a provincial heritage resources authority in terms of this section.

(9) SAHRA must assist other State Departments in identifying graves in a foreign country of victims of conflict connected with the liberation struggle and, following negotiations with the next of kin, or relevant authorities, it may re-inter the remains of that person in a prominent place in the capital of the Republic.

General policy

47. (1) SAHRA and a provincial heritage resources authority—

(a) must, within three years after the commencement of this Act, adopt statements of general policy for the management of all heritage resources owned or controlled by it or vested in it; and

(b) may from time to time amend such statements so that they are adapted to changing circumstances or in accordance with increased knowledge; and

(c) must review any such statement within 10 years after its adoption.

(2) Each heritage resources authority must adopt for any place which is protected in terms of this Act and is owned or controlled by it or vested in it, a plan for the management of such place in accordance with the best environmental, heritage conservation, scientific and educational principles that can reasonably be applied taking into account the location, size and nature of the place and the resources of the authority concerned, and may from time to time review any such plan.

(3) A conservation management plan may at the discretion of the heritage resources authority concerned and for a period not exceeding 10 years, be operated either solely by the heritage resources authority or in conjunction with an environmental or tourism authority or under contractual arrangements, on such terms and conditions as the heritage resources authority may determine.

(4) Regulations by the heritage resources authority concerned must provide for a process whereby, prior to the adoption or amendment of any statement of general policy or any conservation management plan, the public and interested organisations are notified of the availability of a draft statement or plan for inspection, and comment is invited and considered by the heritage resources authority concerned.

(5) A heritage resources authority may not act in any manner inconsistent with any statement of general policy or conservation management plan.

(6) All current statements of general policy and conservation management plans adopted by a heritage resources authority must be available for public inspection on request.

13.3. Heritage Monitoring Program

No	Activity	Mitigation Measures	Duration	Frequency	Responsibility	Accountable	Contacted	Informed
Pre-Construction Phase								
1	Planning	Ensure all known sites of cultural, archaeological, and historical significance are demarcated on the site layout plan, and marked as no-go areas. Sewage treatment site to be surveyed in detailed after vegetation clearance before subsurface construction works.	Throughout Project	Weekly Inspection	DPW Contractor [C] CECO	Site Manager (SM)	ECO	EA EM PM Amafa KZN
Construction Phase								
1	Emergency Response	Should any archaeological or physical cultural property heritage resources be exposed during excavation for the purpose of construction, construction in the vicinity of the finding must be stopped until heritage authority has cleared the development to continue.	Throughout Project	Throughout	C CECO	SM	ECO	EA EM PM Amafa KZN
		Should any archaeological, cultural property heritage resources be exposed during excavation or be found on development site, a registered heritage specialist or KZN PHRA official		Throughout	C CECO	SM	ECO	EA EM PM

No	Activity	Mitigation Measures	Duration	Frequency	Responsibility	Accountable	Contacted	Informed
		must be called to site for inspection.						
		Under no circumstances may any archaeological, historical or any physical cultural property heritage material be destroyed or removed from site;		Throughout	C CECO	SM	ECO	EA EM PM
		Should remains and/or artefacts be discovered on the development site during earthworks, all work will cease in the area affected and the Contractor will immediately inform the Construction Manager who in turn will inform KZN PHRA		When necessary	C CECO	SM	ECO	EA EM PM
		Should any remains be found on site that is potentially human remains, the Amafa PHRA and South African Police Service should be contacted.		When necessary	C CECO	SM	ECO	EA EM PM
Rehabilitation Phase								
		Same as construction phase.						
Operational Phase								
		Same as construction phase.						