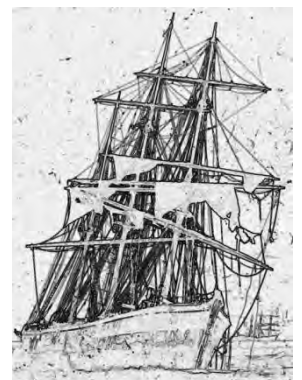


MARITIME ARCHAEOLOGICAL DIVING SURVEY FOR THE CAPE TOWN EMERGENCY WATER RESILIENCE PROJECT, STRANDFONTEIN AND MONWABISI, FALSE BAY, SOUTH AFRICA



**MARITIME ARCHAEOLOGICAL DIVING SURVEY FOR THE CAPE TOWN EMERGENCY WATER RESILIENCE PROJECT,
STRANDFONTEIN AND MONWABISI, FALSE BAY, SOUTH AFRICA****WESTERN CAPE****SOUTH AFRICA**

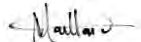
Report #: 2018/WC/001
Status: Interim
Revision #: 0
Date: 15 January 2018

Prepared for: WorleyParsons RSA (Pty) Ltd t/a Advisian
Representative: Michelle Herbert
Tel: 010 593 3944 / 082 308 8535
Address: 31 Allen Drive, Loevenstein, Bellville, Cape Town, 7535
E-mail: michelle.herbert@advisian.com

Prepared by: Vanessa Maitland
ASAPA Registration #: 326
Field: Maritime Archaeology
Address: 277 Main Road, Hot Bay, Cape Town, 7806
Cell: 082 490-4066
E-Mail: vanessa@cocojams.co.za

Declaration:

I, Vanessa Maitland, declare that I have no financial or personal interest in the proposed development, nor its developers or any of their subsidiaries, apart from the provision of heritage assessment and management services.



Vanessa Maitland

Maritime Archaeologist
15-01-2018

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GLOSSARY OF ACRONYMS

ASAPA	Association of Southern African Professional Archaeologists
KYA	Thousand Years Ago
MUCH	Maritime and Underwater Cultural Heritage (Includes underwater and land maritime heritage)
MYA	Million Years Ago
NHRA	National Heritage Resources Act (No. 25 of 1999)
RIB	Rigid Inflatable Boat

1. INTRODUCTION

Cape Town is currently experiencing the worst drought since 1904 (and on record) and the Premier of the Western Cape has declared the City and other areas in the Western Cape as a disaster area.

As result of the drought, the city's dam levels have dropped substantially, and the City of Cape Town intends to augment the city's potable water supply by using reverse osmosis and desalination plants along the coastline.

A feasibility assessment (in consultation with the City of Cape Town) was completed and the locations at Strandfontein and Monwabisi were selected (based on engineering and environmental criteria) for the establishment and operation of temporary (for a two-year period) desalination units and associated pipeline infrastructure. These can generate and inject 7Ml /day of potable water into the bulk municipal system. (Worley Parsons 2017)

Due to the possibility of maritime and underwater cultural heritage (MUCH) resources in the area, the South African Heritage Resources Agency (SAHRA) required "...the area outside of the tidal pool(s) which will be affected by the development(s), namely the installation of the two offshore pipelines, must be surveyed with the aim of identifying locations where historic material may be present. This survey should take the form of a visual or divers survey by suitably qualified divers aimed at identifying any cultural heritage material including but not limited to wooden or metal shipwreck remains, any historical objects or artefacts and any other potential historic material. Should any such material be identified during the survey, a visual record should be taken, and the results must be sent to SAHRA for review". This request was due to Section 38 of the National Heritage Resources Act (NHRA) (25 of 1999) which states that an assessment of potential heritage resources in the development area needs to be done. (Appendix I)

This report fulfils SAHRA's request for a Heritage Survey of the impacted area.

2. TERMS OF REFERENCE

The aim of this diver survey is to determine if there are any known shipwrecks within the defined areas.

The scope of work consisted of the following:

- A magnetometer survey of the impacted zones
- Diver surveys of any detected anomalies to determine their nature and/or significance in terms of the NHRA (No. 25 of 1999).

The objectives were to:

- Identify potential MUCH sites within the designated area
- Recommend management measures for sites before and during development

3. HERITAGE RESOURCES

3.1. THE LEGISLATION

According to Section 32 (1) of the NHRA (No. 25 of 1999), heritage objects consist of:

"An object or collection of objects, or a type of object or list of objects, whether specific or generic, that is part of the national estate and the export of which SAHRA deems it necessary to control, may be declared a heritage object, including— (a) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects, meteorites and rare geological specimens."

The Act further stipulates that the term "archaeological" includes:

"wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation."

Section 35 of the Act states:

- “(1) Subject to the provisions of section 8, the protection of archaeological and palaeontological sites and material and meteorites is the responsibility of a provincial heritage resources authority: Provided that the protection of any wreck in the territorial waters and the maritime cultural zone shall be the responsibility of SAHRA.
- (2) Subject to the provisions of subsection (8)(a), all archaeological objects, palaeontological material and meteorites are the property of the State. The responsible heritage authority must, on behalf of the State, at its discretion ensure that such objects are lodged with a museum or other public institution that has a collection policy acceptable to the heritage resources authority and may in so doing establish such terms and conditions as it sees fit for the conservation of such objects.
- (3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority.
- (4) No person may, without a permit issued by the responsible heritage resources authority—
- (a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
 - (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;”
 - (c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
 - (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.”

Furthermore Section 38 of the Act states:

- “(1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as—
- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
 - (b) the construction of a bridge or similar structure exceeding 50 m in length;
 - (c) any development or other activity which will change the character of a site—
 - (i) exceeding 5 000 m² in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
 - (d) the re-zoning of a site exceeding 10 000 m² in extent; or
 - (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.
- (2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection (1)—
- (a) if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report. Such report must be compiled at the cost of the person proposing the development, by a person or persons approved by the responsible heritage resources authority with relevant qualifications and experience and professional standing in heritage resources management; or
 - (b) notify the person concerned that this section does not apply.
- (3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2)(a): provided that the following must be included:
- (a) The identification and mapping of all heritage resources in the area affected;
 - (b) an assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6(2) or prescribed under section 7;

- (c) an assessment of the impact of the development on such heritage resources;
 - (d) an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
 - (e) the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
 - (f) if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
 - (g) plans for mitigation of any adverse effects during and after the completion of the proposed development.
- (4) The report must be considered timeously by the responsible heritage resources authority which must, after consultation with the person proposing the development, decide—
- (a) whether or not the development may proceed;
 - (b) any limitations or conditions to be applied to the development;
 - (c) what general protections in terms of this Act apply, and what formal protections may be applied, to such heritage resources;
 - (d) whether compensatory action is required in respect of any heritage resources damaged or destroyed as a result of the development; and
 - (e) whether the appointment of specialists is required as a condition of approval of the proposal.
- (5) A provincial heritage resources authority shall not make any decision under subsection (4) with respect to any development which impacts on a heritage resource protected at national level unless it has consulted SAHRA.
- (6) The applicant may appeal against the decision of the provincial heritage resources authority to the MEC, who—
- (a) must consider the views of both parties; and
 - (b) may at his or her discretion—
 - (i) appoint a committee to undertake an independent review of the impact assessment report and the decision of the responsible heritage authority; and
 - (ii) consult SAHRA; and
 - (c) must uphold, amend or overturn such decision.
- (7) The provisions of this section do not apply to a development described in subsection (1) affecting any heritage resource formally protected by SAHRA unless the authority concerned decides otherwise.
- (8) The provisions of this section do not apply to a development as described in subsection (1) if an evaluation of the impact of such development on heritage resources is required in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989), or the integrated environmental management guidelines issued by the Department of Environment Affairs and Tourism, or the Minerals Act, 1991 (Act No. 50 of 1991), or any other legislation: Provided that the consenting authority must ensure that the evaluation fulfils the requirements of the relevant heritage resources authority in terms of subsection (3), and 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.
- (9) The provincial heritage resources authority, with the approval of the MEC, may, by notice in the *Provincial Gazette*, exempt from the requirements of this section any place specified in the notice.
- (10) Any person who has complied with the decision of a provincial heritage resources authority in subsection (4) or of the MEC in terms of subsection (6) or other requirements referred to in subsection (8), must be exempted from compliance with all other protections in terms of this Part, but any existing heritage agreements made in terms of section 42 must continue to apply.”

3.2. CONCLUSION – THE LEGISLATION IN TERMS OF THE PROJECT

There is extensive national legislation covering MUCH sites. Within the scope of this project, Section 38 of the NHRA (25 of 1999), states that an assessment of potential heritage resources in the development area needs to be done. The magnetometer and diver survey can identify potential MUCH sites. If a potential MUCH site is uncovered during the work, a maritime archaeologist needs to be contacted to assess the find. Thereafter, in conjunction with SAHRA, a decision will be made regarding the significance of the site. If it is deemed to be culturally significant, the developer can apply to the Maritime Unit of SAHRA for a permit for removal, excavation or destruction in terms of Section 35 of the NHRA.

4. STUDY APPROACH AND METHODOLOGY

4.1. EXTENT OF THE ASSESSMENT

This survey is concerned with MUCH and covers the area as described in Section 5. However, as archaeological remains are often, by their nature, buried, this survey only deals with visible MUCH resources. There is a possibility that artefacts will be uncovered during construction. In the event of this occurring the Recommended Management Measures in Section 10 need to be implemented.

4.2. METHODOLOGY

4.2.1. MAGNETOMETER SURVEY

A Geometrics G-882 cesium-vapor marine magnetometer was towed behind a 6m fibreglass rigid inflatable boat (RIB), with a layback of 10 meters, at an average speed of 6 knots/hour, utilising 15m run-lines.

The magnetometer data collected by MagLog® software was analysed twice. The first or field analysis is performed as the magnetometer is towed. Possible sites are tabulated and analysed according to the environmental conditions in the field. The post-field analysis was interpreted with geophysical software (Surfer), with knowledge of the environmental conditions. The analyses were compared, and a final analysis completed.

LIMITATIONS

- The magnetometer picks up magnetic anomalies in and below the seabed. All the hits may not be MUCH sites, in addition, searches may not find the cause. Their status may only be revealed during the development process. The process gives the developers an idea of where MUCH sites may be uncovered.

4.2.2. DIVER SEARCHES

Each magnetic anomaly was dived on from a RIB. A circular search of up to a 35m radius was conducted. The results are tabulated in Section 8.

LIMITATIONS

- The surge in the inshore areas.
- Low visibility in the inshore areas.

5. DESCRIPTION OF THE AFFECTED ENVIRONMENT

5.1. GEOLOGICAL INFORMATION

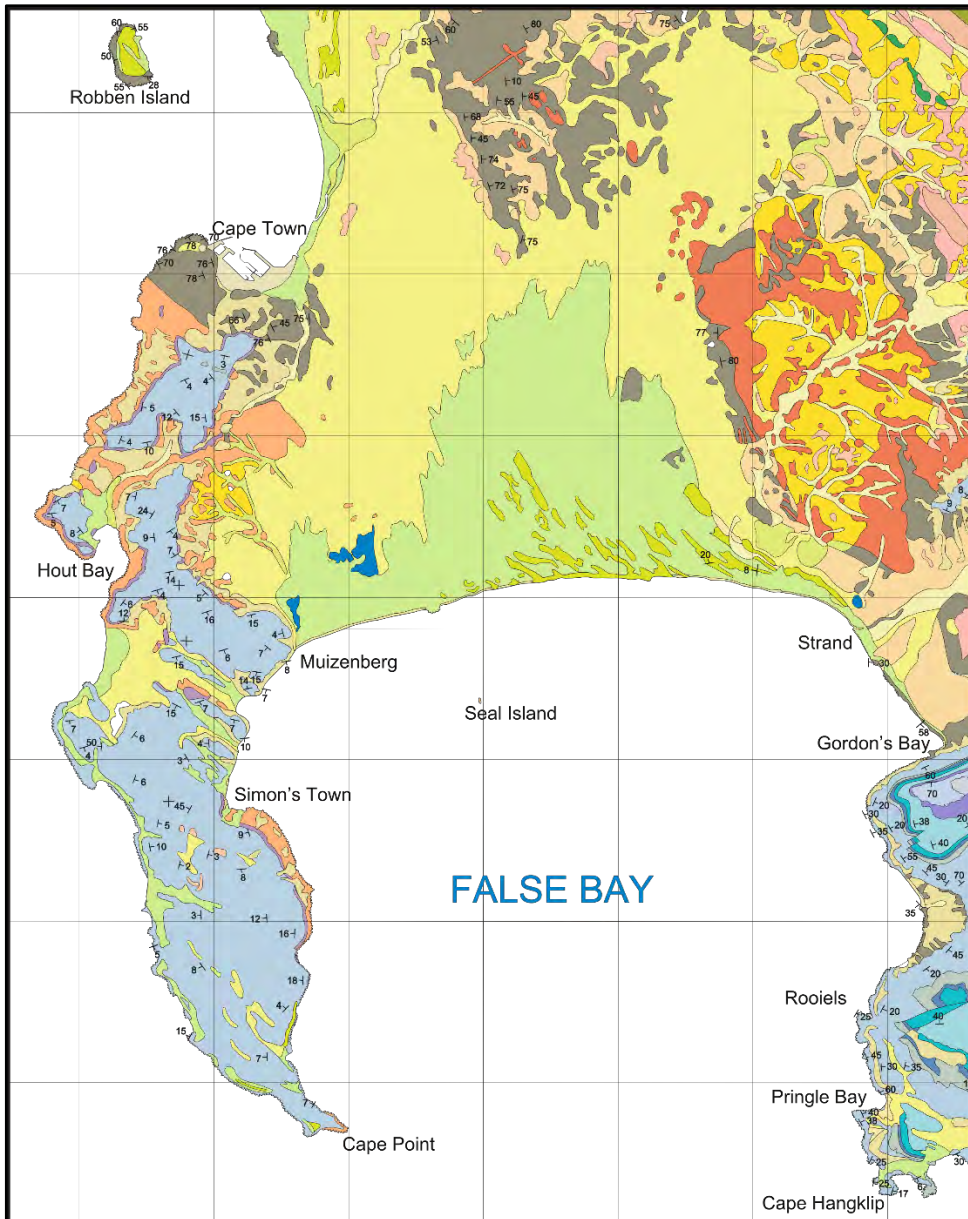


Figure 1: Geological Map of False Bay (Pbsouthwood) (Own work) [CC BY-SA 3.0 (<https://creativecommons.org/licenses/by-sa/3.0/>)], via Wikimedia Commons

The Cape Flats and False Bay areas were periodically exposed and inundated with sea water as the sea levels fluctuated. The visible geology (Figure 1) of the development areas is beach sands, shell fragments and estuarine muds laid down during the Pleistocene (2.5 MYA – 11 KYA). These were overlain by calccreted dune sands during low sea level periods. This is known as “dune rock” and dates from about 120 000 years ago, an interglacial period. (Crompton 2018)

The sea bed of the impact zones is very sandy with outcroppings of dune-rock reefs covered in sponges and soft corals. The fracture planes within this sedimentary rock create ledges and geometric shapes.

The surge within the impact zones varies from 1.5m to 3.5m. The surge is aggravated by winds from the south, south-west and south-east. These winds also decreased the subsea visibility by increasing turbidity. The best days are when the wind is from the north-west, this flattens the surge and increases visibility.

5.2. SITE LOCATIONS AND DESCRIPTIONS

5.2.1. STRANDFONTEIN

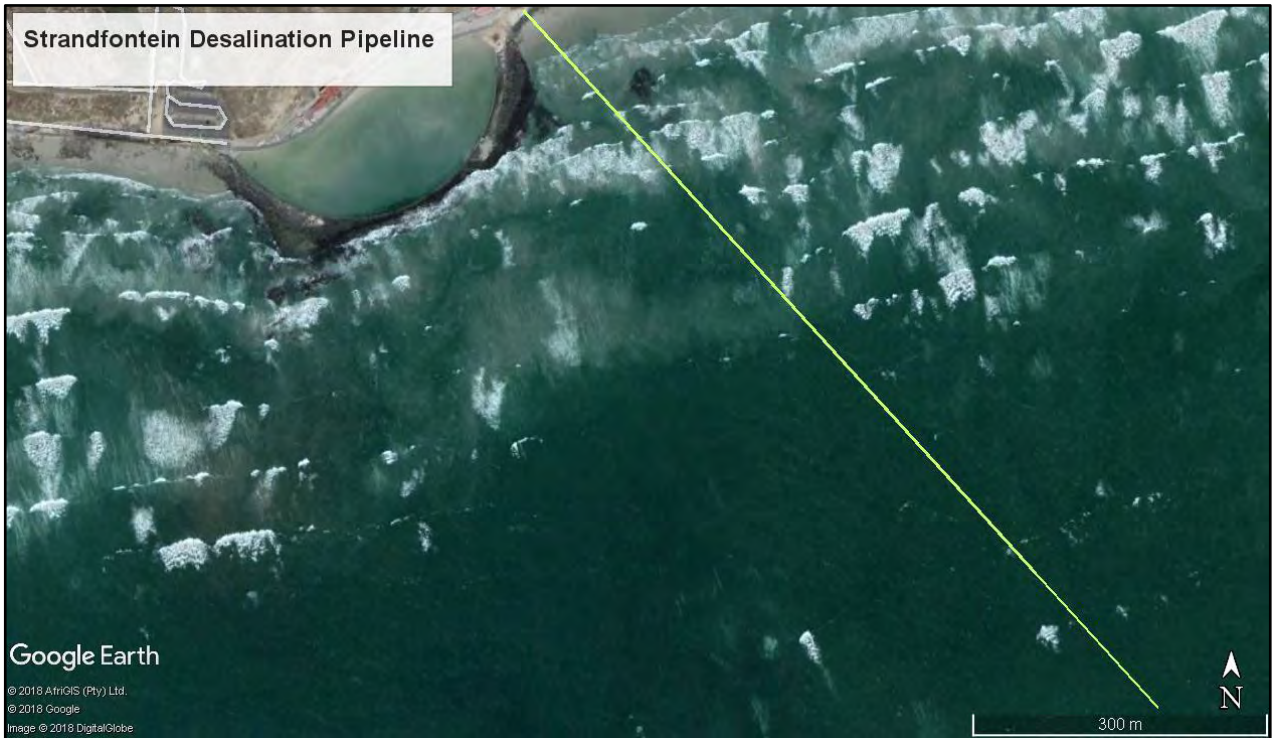


Figure 2: Strandfontein Desalination Pipeline Route (Google Earth 2018; WorleyParsons 2017)

This site is located off the Strandfontein Pavilion Resort, False Bay, Cape Town (Figure 2). The beginning of the subsea pipeline is at 34° 5.291'S 18° 33.429'E and the end of the subsea pipeline is at 34° 5.636'S 18° 33.810'E. The length is approximately 865 m with a bearing of 137.8°.

5.2.2. MONWABISI



Figure 3: Monwabisi Desalination Pipeline Route (Google Earth 2018; WorleyParsons 2017)

This site is located off the Monwabisi Tidal Pool, False Bay, Cape Town (Figure 3). The beginning of the subsea pipeline is at 34° 4.449'S 18° 18' 41.428'E and the end of the subsea pipeline is at 34° 4.791'S 18° 41.397'E. The length is approximately 625 m with a bearing of 184.4°.

6. SHIPWRECK DATABASE

6.1. LOCATION INFORMATION

Zwartklip / Swartklip is named after the visible geology of this section of the coastline (Figures 4-6)

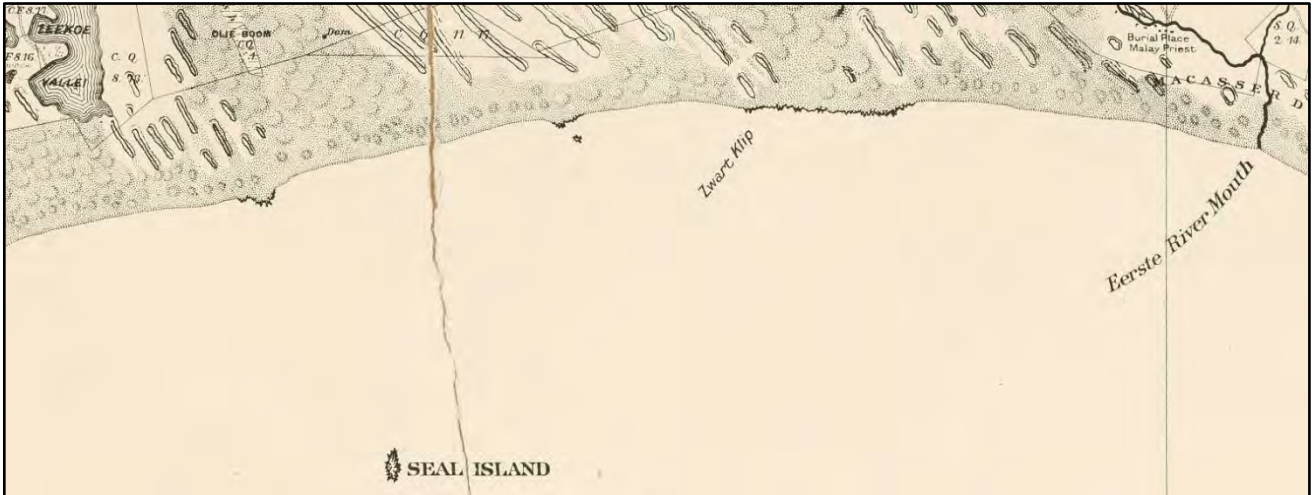


Figure 4: Monwabisi area map from 1880 (UCT Digital Collections 2018)



Figure 5: Map showing extent of Zwartklip area (Google Earth 2018)



Figure 6: A view of the geology from which Swartklip received its name (Torrente 2018)

6.2. DATABASE

The nature of the environment, poor historical reporting and the length of time since the wrecks occurred means that underwater cultural heritage sites may literally be anywhere and are thus hard to pinpoint with any accuracy beforehand. It is important to have a database because if MUCH sites are uncovered during the project, it will be easier to identify the wreck and thus assess its cultural and historical significance.

#	Name	Events	Nation	Date	History
SHIPWRECKS IN THE MONWABISI AREA					
1	<i>Drietal Handelaars</i>	Wrecked	Netherlands	1789	This 502-ton Dutch ship, chartered by the VOC was under the command of Kornelius de Vries. Homeward bound from Sri Lanka, she was anchored off Zwartklip, False Bay. A south-easterly gale blew her onto the rocks and although she became a total wreck, no lives were lost.
SHIPWRECKS IN THE STRANDFONTEIN AREA					
2	<i>Le Protie</i>		France	1839	This 187-ton whaler under Capt. Lory was wrecked at Strandfontein. No lives were lost.
MODERN SHIPWRECKS					
3	<i>Godetia</i>			1970	This I & J trawler was built in Scotland in 1946. It was scuttled at approximately 34 05.78S, 18 44.30E. This wreck is younger than 60 years and therefore is not protected by the NHRA.

7. MAGNETOMETER SURVEY

The magnetometer data collected by MagLog software was analysed twice. The first or field analysis is performed as the magnetometer is towed (Figure 7). This analysis observes real time spikes within the magnetic field. Possible sites are tabulated and analysed according to the environmental conditions in the field. These conditions include:

- Shipping
- Weather / Sea conditions
- Channel marker buoys and markers
- Other metal objects in the vicinity

The post-field analysis was interpreted with Surfer geophysical software, ignoring the environmental conditions. A second analysis was performed while looking at the data stream and taking cognizance of the environmental conditions at the time of the survey (Figures 8-11).

The Impact Zone was surveyed on Sunday 31-12-2017 from 07:00 to 14:00.

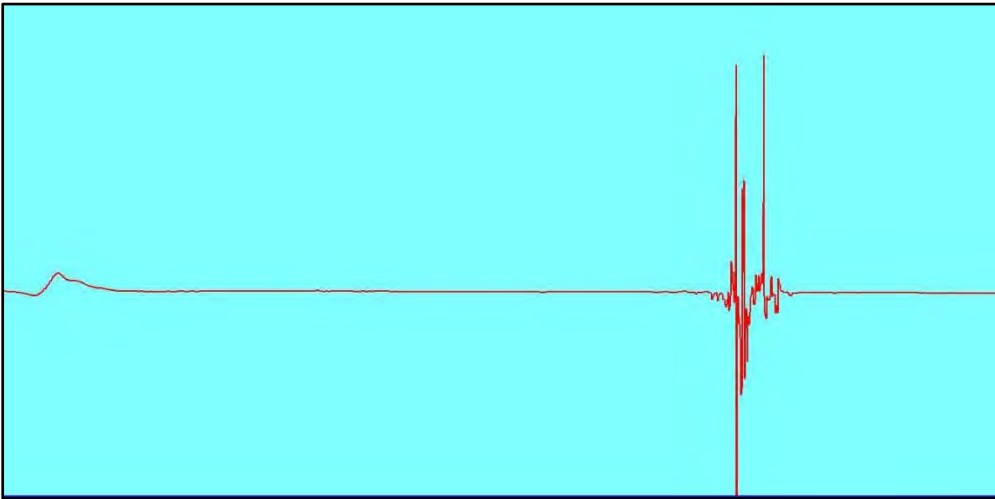


Figure 7: A magnetic anomaly reading from the magnetometer

8.1. IMPACT ZONE – SURVEY RESULTS

8.1.1. STRANDFONTEIN

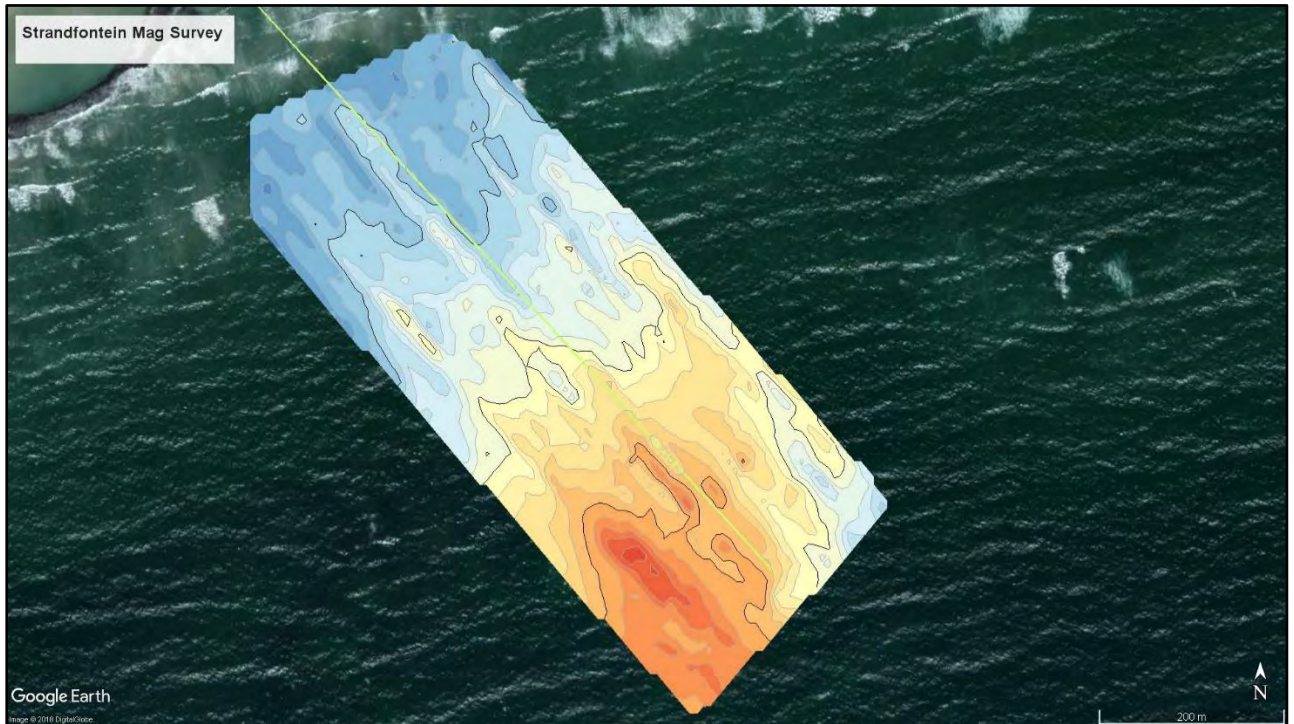


Figure 8: Strandfontein Magnetometer Survey Map (Google Earth 2018)



Figure 9: Strandfontein survey with anomalies (Google Earth 2018)

8.1.2. MONWABISI

8.2. IMPACT ZONE – SURVEY RESULTS

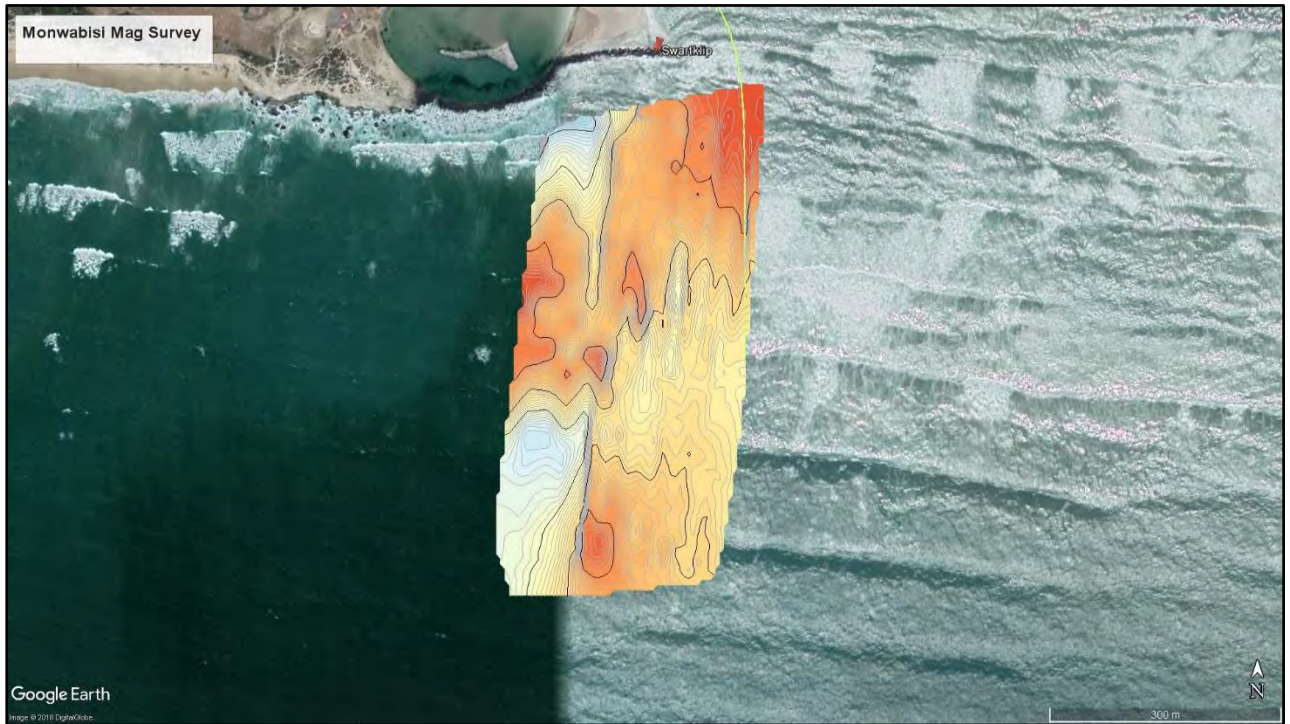


Figure 10: Monwabisi Magnetometer Survey Map (Google Earth 2018)

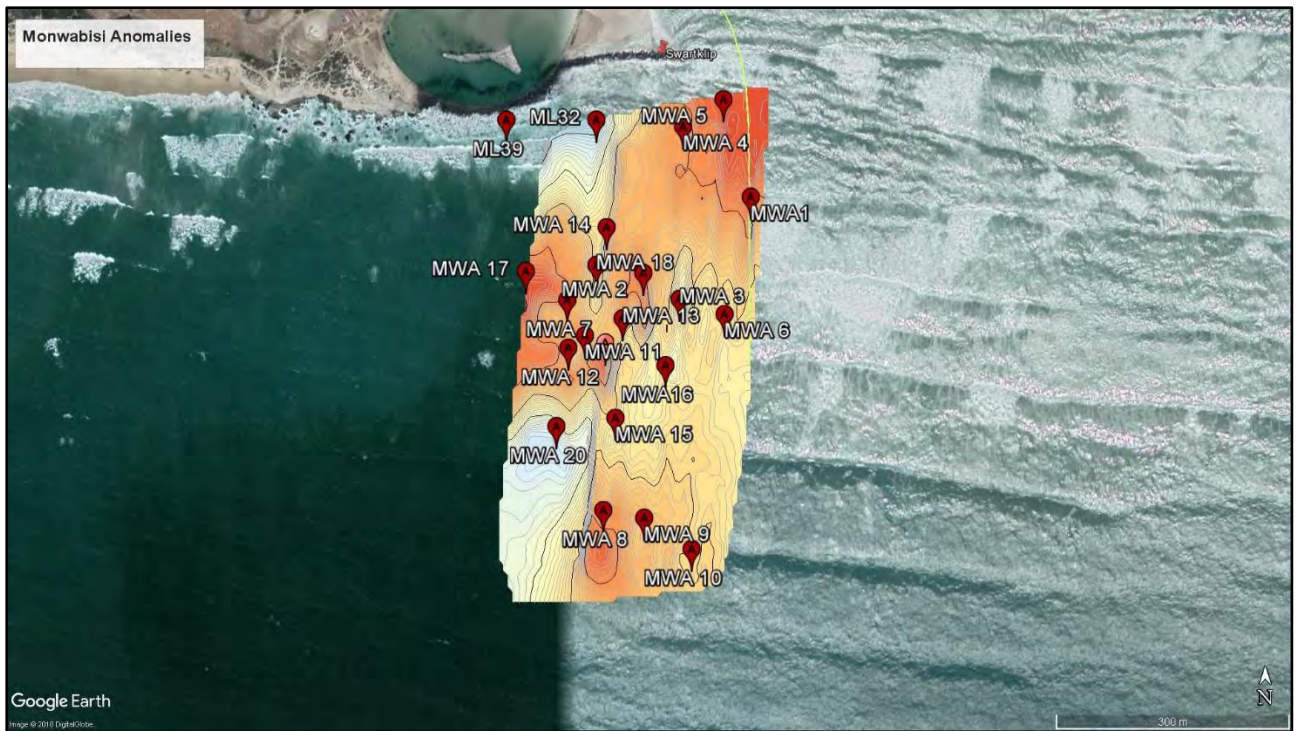


Figure 11: Strandfontein survey with anomalies (Google Earth 2018)

8. DIVER SEARCHES

8.1. STRANDFONTEIN

Table 1: Strandfontein Anomalies and Results

Anomaly	Divers	Date	Time In	Time Out	Description
SF01	V. Maitland A. Maitland	07-01	7:36	8:10	No visible MUCH; sand and reef (Figure 12)
SF02	V. Maitland A. Maitland	07-01	08:18	08:45	Sand and reef; piece of metal (Figure 13)
SF03	V. Maitland A. Maitland	07-01	09:25	09:45	No visible MUCH; sand and reef
SF04	V. Maitland A. Maitland	07-01	10:14	10:33	No visible MUCH; sand and reef
SF05	V. Maitland A. Maitland	06-01	08:18	08:56	No visible MUCH; sand and reef
SF06	V. Maitland A. Maitland	06-01	11:25	11:50	No visible MUCH; sand and reef
SF07	V. Maitland A. Maitland	06-01	10:26	10:47	No visible MUCH; sand and reef
SF08	V. Maitland A. Maitland	06-01	09:32	09:59	No visible MUCH; sandy
SF09	V. Maitland A. Maitland	07-01	11:35	11:45	No visible MUCH; sandy
SF10	V. Maitland A. Maitland	07-01	10:45	11:10	No visible MUCH; sandy
SF11	V. Maitland A. Maitland	07-01	11:15	11:25	No visible MUCH; sandy



Figure 12: Typical mussel covered reef at Strandfontein (Maitland 2018)



Figure 13: Anomaly SF02 (Maitland 2018)

8.2. MONWABISI

Table 2: Monwabisi Anomalies and Results

Anomaly	Divers	Date	Time In	Time Out	Description
MW01	V. Maitland V. Torrente	23-01	13:11	13:26	No visible MUCH; sandy and reef
MW02	V. Maitland V. Torrente	14-01	08:42	08:56	No visible MUCH; 30cm viz; high surge; reef and sand
MW03	V. Maitland	23-01	14:49	15:13	No visible MUCH; sandy; some scattered dune rock

	V. Torrente				
MW04	V. Maitland V. Torrente	23-01	12:00	12:19	No visible MUCH; sandy; some scattered dune rock
MW05	V. Maitland V. Torrente	14-01	08:14	08:30	No visible MUCH; 20cm viz; high surge; reef & sand
MW06	V. Maitland V. Torrente	14-01	11:57	12:15	No visible MUCH; Viz 2m; reef and sand
MW07	V. Maitland V. Torrente	23-01	15:21	15:33	No visible MUCH; sandy; mussel bed that looked circular; took pick, cleaned off but no visible MUCH (Figure 14)
MW08	V. Maitland V. Torrente	14-01	11:26	11:50	No visible MUCH; sand and reef on one side of circular search; fracture plane dune rock (Figure 15)
MW09	V. Maitland V. Torrente	14-01	10:58	11:15	No visible MUCH; sand and reef on one side of circular search; fracture plane dune rock
MW10	V. Maitland V. Torrente	14-01	9:26	10:04	No visible MUCH; sand and reef
MW11	V. Maitland V. Torrente	23-01	11:45	11:56	No visible MUCH; sandy with reef; overlaps with MWA19
MW12	V. Maitland	23-01	14:07	14:13	No visible MUCH; sand and reef
MW13	V. Maitland R. Day	21-01	11:04	11:15	No visible MUCH; sandy; a few scattered dune rocks
MW14	V. Maitland V. Torrente	23-01	13:34	13:44	No visible MUCH; sandy
MW15	V. Maitland R. Day	21-01	10:52	11:00	No visible MUCH; sandy bottom; some scattered rocky reef; Viz +-2 m with some areas 20cm due to churned up bottom
MW16	V. Maitland V. Torrente	23-01	15:37	16:00	No visible MUCH;
MW17	V. Maitland V. Torrente	23-01	12:30	12:44	No visible MUCH; sandy; scattered dune rock
MW18	V. Maitland V. Torrente	23-01	13:48	14:00	No visible MUCH; sandy; scattered dune rock
MW19	V. Maitland R. Day	21-01	11:43	11:50	No visible MUCH; Viz – 0; surge very high. Could see dense mussel beds. Will return 23-01
MW20	V. Maitland R. Day	21-01	10:28	10:40	No visible MUCH; sandy bottom; some scattered rocky reef; Viz +-2 m with some areas 20cm due to churned up bottom



Figure 14: MWA07 (Maitland (2018))



Figure 15: MWA08 Typical dune rock reef

9. CONCLUSIONS

As per SAHRA (Section 3.2) this report covers the magnetometer survey and anomaly diver searches on the two desalination pipelines – Strandfontein and Monwabisi. While the magnetometer survey indicated several magnetic anomalies, these could not be visually located as MUCH resources. If, however, MUCH resources are uncovered during development the Recommended Management Measures (Section 10), must be followed.

10. RECOMMENDED MANAGEMENT MEASURES

Heritage sites are fixed features in the environment, occurring within specific spatial confines. Any impact upon them is permanent and non-reversible. Those resources that cannot be avoided and that are directly impacted by the proposed development can be excavated / recorded and a management plan can be developed for future action. Those sites that are not impacted on can be written into the management plan, whence they can be avoided or cared for in the future.

OBJECTIVES

- Protection of heritage sites within the project boundary against damage, destruction and theft.
- The preservation and appropriate management of new discoveries in accordance with the NHRA, should these be discovered during development activities.

THE FOLLOWING SHALL APPLY:

- The contractors and workers should be notified that archaeological sites might be exposed during the prospecting activities.
- Should any heritage artefacts be exposed during prospecting, work on the area where the artefacts were discovered, shall cease immediately and the Environmental Control Officer shall be notified as soon as possible;
- All discoveries shall be reported immediately to a heritage practitioner so that an investigation and evaluation of the finds can be made. Acting upon advice from these specialists, the Environmental Control Officer will advise the necessary actions to be taken;
- Under no circumstances shall any artefacts be removed, destroyed or interfered with by anyone on the site; and
- Contractors and workers shall be advised of the penalties associated with the unlawful removal of cultural, historical, archaeological or palaeontological artefacts, as set out in the NHRA (Act No. 25 of 1999), Section 51. (1).

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APPENDIX I: SAHRA'S INTERIM COMMENTS REGARDING THE CCT DESALINATION PLANT AT MONWABISI AND STRANDFONTEIN – 02 NOVEMBER 2017

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Briege Williams
Tel: 021 462 4502
Email: bwilliams@sahra.org.za
CaseID: 11807

Date: Thursday November 02, 2017
Page No: 1

Interim Comment

In terms of Section 38 of the National Heritage Resources Act (Act 25 of 1999)

Attention: Peter Flower
City of Cape Town Metropolitan Municipality

The proposal to construct temporary desalination facility on Erven re-1212, 1215 Strandfontein (Strandfontein Pavilion) Cape Town. The application is one of a few Desalination Plants proposed as a result of the current drought in Cape Town and the Western Cape Province, due to the low rainfall received during 2016 and 2017. Western Cape

SAHRA would like to thank you for submitting the Notification of Intent to Develop for the proposed desalination plant at Strandfontein, Cape Town.

SAHRA has been asked to comment on the possible disturbance of any maritime heritage during the construction of the desalination plant particularly in respect to the installation of the pipelines for the intake and discharge of seawater and the associated intake zones.

In terms of the National Heritage Resources Act, No 25 of 1999 (NHRA), Sections 2 and 35 stipulates that any wreck, being any vessel or aircraft or any part thereof older than 60 years old lying in South Africa's territorial waters or maritime cultural zone is protected and falls under the jurisdiction of SAHRA's Maritime and Underwater Cultural Heritage Unit. These heritage sites or objects may not be disturbed without a permit from the relevant heritage resources authority.

With regard to maritime and underwater cultural heritage it is important to note that the number of known shipwrecks along the South African coast is approximately 2800. The positions of the large majority of these are not known, only that they occurred and an approximate location. False Bay and the surrounding coastline is an area where many ships were wrecked. The nearest recorded wrecks are those of the Johanna Wagner in 1862 and the Protee in 1839. The Johanna Wagner is recorded as being wrecked at Zandfontein approx 2-3km from the Strandfontein tidal pool and the Protee is listed as being wrecked at Strandfontein. It must be noted that the historical information regarding the location of these wrecks is vague and therefore the exact locations are not known.

SAHRA therefore requires that the area outside of the tidal pool which will be affected by the development, namely the installation of the external offshore pipelines, must be surveyed with the aim of identifying locations

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Briege Williams
Tel: 021 462 4502
Email: bwilliams@sahra.org.za

Date: Thursday November 02, 2017

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where historic material may be present. This survey should take the form of a visual or divers survey by suitably qualified divers aimed at identifying any cultural heritage material including but not limited to wooden or metal shipwreck remains, any historical objects or artefacts and any other potential historic material. Should any such material be identified during the survey, a visual record should be taken and the results must be sent to SAHRA for review.

If any remains are confirmed as shipwreck material the affected site may need to be excluded from any development or disturbance. Should anything of archaeological or paleontological significance be exposed during the proposed project, work must cease immediately and SAHRA must be informed of its discovery without delay. In this event, work may not commence until feedback has been received from SAHRA.

If cultural heritage material is discovered in the development area and is at risk of damage or disturbance as the result of the works associated with the desalination plant, a permit shall be required in order for the works to continue. SAHRA may impose no-go zones for development on the basis of the presence of cultural heritage material.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Briege Williams
Heritage Officer
South African Heritage Resources Agency

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Briege Williams
Tel: 021 462 4502
Email: bwilliams@sahra.org.za

Date: Thursday November 02, 2017

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Lesla la Grange
Acting Manager: Maritime and Underwater Cultural Heritage
South African Heritage Resources Agency

ADMIN:

Direct URL to case: <http://www.sahra.org.za/node/408916>

Terms & Conditions:

1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for proposed work.
2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
3. SAHRA reserves the right to request additional information as required.

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Briege Williams
Tel: 021 462 4502
Email: bwilliams@sahra.org.za
CaseID: 11808

Date: Thursday November 02, 2017
Page No: 1

Interim Comment

In terms of Section 38 of the National Heritage Resources Act (Act 25 of 1999)

Attention: Peter Flower
City of Cape Town Metropolitan Municipality

The proposal to construct temporary desalination facility on the Monwabisi Resort situated on Erf 544RE Khayalitsha Cape Town. The application is one of a few Desalination Plants proposed as a result of the current drought in Cape Town and the Western Cape Province, due to the low rainfall received during 2016 and 2017. Western Cape

SAHRA would like to thank you for submitting the Notification of Intent to Develop for the proposed desalination plant at Monwabisi, Cape Town.

SAHRA has been asked to comment on the possible disturbance of any maritime heritage during the construction of the desalination plant particularly in respect to the installation of the pipelines for the intake and discharge of seawater and the associated intake zones.

In terms of the National Heritage Resources Act, No 25 of 1999 (NHRA), Sections 2 and 35 stipulates that any wreck, being any vessel or aircraft or any part thereof older than 60 years old lying in South Africa's territorial waters or maritime cultural zone is protected and falls under the jurisdiction of SAHRA's Maritime and Underwater Cultural Heritage Unit. These heritage sites or objects may not be disturbed without a permit from the relevant heritage resources authority.

With regard to maritime and underwater cultural heritage it is important to note that the number of known shipwrecks along the South African coast is approximately 2800. The positions of the large majority of these are not known, only that they occurred and an approximate location. False Bay and the surrounding coastline is an area where many ships were wrecked. The nearest recorded wreck is that of the Drietal Handelaars which ran aground at Swartklip Rocks in 1789, the Monwabisi tidal pool is located on Swartklip Rocks. While the exact location of the Drietal Handelaars is not known, it remains a possibility that shipwreck material may remain.

SAHRA therefore requires that the area outside of the tidal pool which will be affected by the development, namely the installation of the two offshore pipelines, must be surveyed with the aim of identifying locations where historic material may be present. This survey should take the form of a visual or divers survey by

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Briege Williams
Tel: 021 462 4502
Email: bwilliams@sahra.org.za

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suitably qualified divers aimed at identifying any cultural heritage material including but not limited to wooden or metal shipwreck remains, any historical objects or artefacts and any other potential historic material. Should any such material be identified during the survey, a visual record should be taken and the results must be sent to SAHRA for review.

If any remains are confirmed as shipwreck material the affected site may need to be excluded from any development or disturbance. Should anything of archaeological or paleontological significance be exposed during the proposed project, work must cease immediately and SAHRA must be informed of its discovery without delay. In this event, work may not commence until feedback has been received from SAHRA.

If cultural heritage material is discovered in the development area and is at risk of damage or disturbance as the result of the works associated with the desalination plant, a permit shall be required in order for the works to continue. SAHRA may impose no-go zones for development on the basis of the presence of cultural heritage material.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Briege Williams
Heritage Officer
South African Heritage Resources Agency

Lesa la Grange
Acting Manager: Maritime and Underwater Cultural Heritage
South African Heritage Resources Agency

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Briege Williams
Tel: 021 462 4502
Email: bwilliams@sahra.org.za
CaseID: 11808

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Page No: 3

ADMIN:

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Terms & Conditions:

1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for proposed work.
2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
3. SAHRA reserves the right to request additional information as required.