



11 April 2017
509310/42A

South African Heritage Resources Agency
Via SAHRIS website

Attention: Lesa la Grange

Dear Lesa

Hout Bay Fishing Harbours: Notification of Intent to Develop

The Coega Development Corporation (CDC), acting as implementing agent on behalf of the National Department of Public Works (NDPW), have appointed PRDW Consulting Port and Coastal Engineers (PRDW) as consultants to manage the repair, maintenance and upgrades of marine infrastructure at the Hout Bay fishing harbour.

PRDW have appointed SRK Consulting (SRK) to identify and undertake the environmental approval and permitting processes required for the proposed works, which will be undertaken as part of the Operation Phakisa initiative.

The purpose of this letter is to:

- Provide a description of the proposed works at Hout Bay Fishing Harbour;
- Confirm the need for an application in terms of Section 34 of the National Heritage Resources Act 25 of 1999 (NHRA) for repairs to structures older than 60 years;
- Confirm the need for an application in terms of Section 38 (2) of the NHRA; and
- Provide supporting information.

1. Proposed works at Hout Bay Fishing Harbour

The proposed works at Hout Bay fishing harbour include:

- Concrete repair and maintenance of existing marine structures;
- Maintenance and repair of quay furniture (bollards, fenders and access ladders);
- Repair and maintenance of the harbour slipways including rails, cradles and winches;
- Replacement of the shore crane;

Partners R Armstrong, AH Bracken, MJ Braune, JM Brown, CD Dalglish, BM Engelsman, R Gardiner, GC Howell, WC Joughin, DA Kilian, JA Lake, BF Liber, V Maharaj, DJ Mahlangu, RRW McNeill, HAC Meintjes, MJ Morris, GP Nel, VS Reddy, PE Schmidt, PJ Shepherd, MJ Sim, VM Simposya, HFJ Theart, KM Uderstadt, AT van Zyl, MD Wanless, ML Wertz, A Wood

Directors AJ Barrett, GC Howell, WC Joughin, V Maharaj, DJ Mahlangu, VS Reddy, PE Schmidt, PJ Shepherd

Associate Partners N Brien, LSE Coetsier, CJ Ford, E Goossens, M Hinsch, SG Jones, W Jordaan, AH Kirsten, LH Kirsten, S Kisten, I Mahomed, RD O'Brien, T Shepherd, JJ Slabbert, WI Stewart, D Visser

Consultants JAC Cowan, PrSciNat, BSc(Hons); JH de Beer, PrSci Nat, MSc; JR Dixon, PrEng; T Hart, MA, TTHD; GA Jones, PrEng, PhD; PR Labrum, PrEng; PN Rosewarne, PrSciNat; AA Smithen, PrEng; TR Stacey, PrEng, DSc; OKH Steffen, PrEng, PhD; PJ Terbrugge, PrSciNat, MSc, DJ Venter; PrTech

SRK Consulting (South Africa) (Pty) Ltd

Reg No 1995.012890.07

African Offices:

Cape Town	+ 27 (0) 21 659 3060
Durban	+ 27 (0) 31 279 1200
East London	+ 27 (0) 43 748 6292
Johannesburg	+ 27 (0) 11 441 1111
Kimberley	+ 27 (0) 53 861 5798
Pietermaritzburg	+ 27 (0) 33 347 5069
Port Elizabeth	+ 27 (0) 41 509 4800
Pretoria	+ 27 (0) 12 361 9821
Rustenburg	+ 27 (0) 14 594 1280
Accra	+ 23 (3) 24 485 0928
Lubumbashi	+ 243 (0) 81 999 9775

Group Offices:

Africa
Asia
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Europe
North America
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- Removal of the 14 sunken fishing vessels;
- Maintenance dredging of isolated areas within the harbour basin; and
- Breakwater concrete cap repairs, and placement of additional concrete armour units.

Additional details regarding each of these activities are provided in the Project Description attached as **Appendix A**. These works have not yet commenced.

2. Application in terms of Section 34 of NHRA

The proposed works include repairs to the *main breakwater* as well as *quay 1*, both of which are older than 60 years. As such, SRK believes a permit for repairs to these structures will be required, and will submit relevant information in support of such a permit application on the SAHRIS website. **Appendix B** provides additional information and photographs of the structures older than 60 years.

It is further proposed that 14 sunken fishing vessels be removed from the harbour. Information regarding the proposed fishing vessels (and confirmation that these are not older than 60 years) was previously submitted to your Department. A response was received on 25 November 2016 confirming that no application would be required for the removal of sunken fishing vessels at Hout Bay harbour.

3. Application in terms of Section 38 of NHRA

The proposed repairs at Hout Bay fishing harbour will not include any linear developments exceeding 300 m in length and will not require the rezoning or subdivision of any property. The proposed works will all take place within the existing footprint of harbour infrastructure, apart from dredging and the disposal of dredge spoil.

Three areas within the harbour require dredging and are estimated to be a total of 2 700m² in size. Similarly, three areas within the harbour have been identified for the possible disposal of the dredge spoil, with an estimated total size of 4 500m². **Appendix C** provides additional details regarding the proposed dredge and dredge disposal areas.

An area exceeding 5 000m² in size would thus be affected by the proposed dredging and dredge disposal, however these areas have been significantly disturbed in the past and would have been dredged during the initial construction of the harbour. (Only maintenance dredging, to remove accumulated sediment and dredge the harbour to its original depth, is proposed). An application in terms of Section 38 of the NHRA may thus be required, although SRK does not anticipate that any heritage resources would be affected or disturbed by the dredging or dredge disposal activities and would thus appreciate confirmation on any further information required by SAHRA.

Please note that all maintenance dredging activities and the associated disposal of dredge spoil will be undertaken in terms of a Maintenance Management Plan required in terms of the National Environmental Management Act 107 of 1998 (NEMA), which will include the following requirements:


- *Report all exposed marine/terrestrial heritage resources to the HWC and/or SAHRA. Heritage resources uncovered/disturbed must not be disturbed further until advice has been obtained from the relevant heritage authority on how they should be dealt with.*
- *Ensure that all Contractors and Sub-contractors are made aware of the potential existence of heritage resources (terrestrial and marine), and are instructed on the correct procedure for preserving the integrity thereof.*

Should you have any queries or require any further information, please do not hesitate to contact the undersigned. Could you please ensure that all correspondence with regard to this application is addressed or copied to Sharon Jones at sjones@srk.co.za.

Yours faithfully,

SRK Consulting (South Africa) (Pty) Ltd

SRK Consulting - Certified Electronic Signature

The logo for SRK Consulting features the company name in a sans-serif font, with 'srk' in orange and 'consulting' in grey. To the right of the text is a stylized signature in black ink. Below the logo, the following text is displayed: '509310/42829/Letter', '4544-6153-4221-JONS', and a disclaimer: 'This signature has been printed digitally. The Author has given permission for its use for this document. The details are stored in the SRK Signature Database.'

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Sharon Jones, Pr.Sci.Nat, CEAPSA

Principal Environmental Scientist and Associated Partner

cc. Gus Hojem PRDW
Maxwell Denga CDC

Appendix A:
Project Description

Professional Consultancy Services for Coastal Engineering Infrastructure Activities – Proclaimed Fishing Harbours Western Cape

Project Descriptions

Hout Bay Harbour

REV.03

03 February 2017



COEGA DEVELOPMENT CORPORATION
South Africa



Professional Consultancy Services for Coastal Engineering Infrastructure Activities – Proclaimed Fishing Harbours Western Cape

Project Descriptions

Hout Bay Harbour

S2042-1-TN-EN-001

03 February 2017

REV.	TYPE	DATE	EXECUTED	CHECK	APPROVED	CLIENT	DESCRIPTION / COMMENTS
00	A	04/10/2016	MGT	GPH			
01	C	2/11/2016	GPH				Updated work figures
02	C	18/11/2016	MGT	GPH			Update project descriptions
03	C	03/02/2017	MGT	GPH			Update project descriptions

TYPE OF ISSUE: (A) Draft (B) To bid or proposal (C) For Approval (D) Approved (E) Void

COEGA DEVELOPMENT CORPORATION
South Africa



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1. INTRODUCTION

1.1 Project Background

The National Department of Public Works (NDPW) has appointed the Coega Development Corporation (CDC) as the implementing agents for the repair, maintenance and upgrade of the 13 proclaimed Western Cape fishing harbours. The 13 fishing harbours have been split into four separate work packages. PRDW have been appointed by CDC for the professional consulting services required to repair, maintain and upgrade the marine infrastructure for Work Package 1 and 2, which includes Hout Bay, Kalk Bay, Gordons Bay, Hermanus (Work Package 1), and Saldanha Bay and Pepper Bay (Work Package 2).

The following project description focuses on the work required in the harbour, which is shown in Figure 1-1.

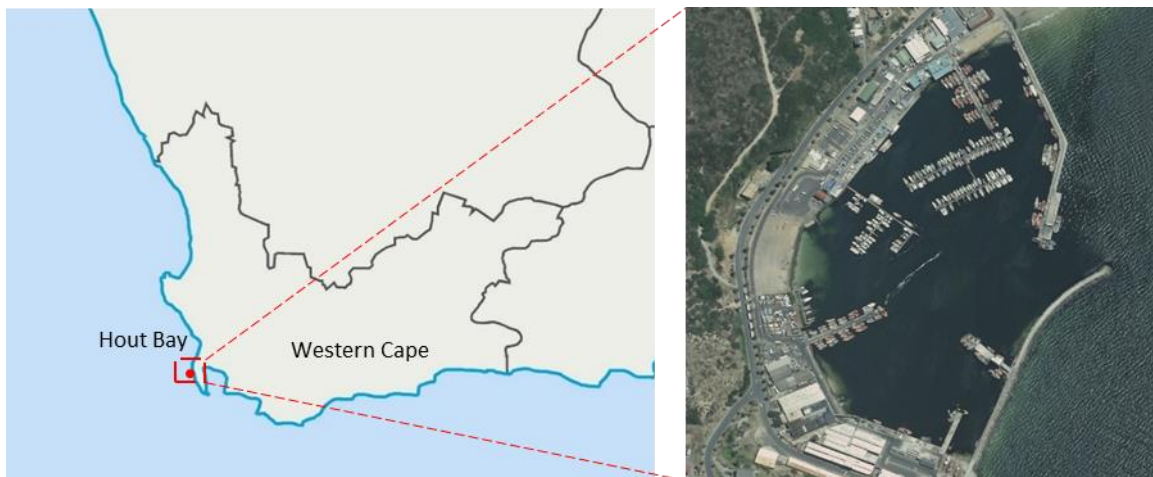


Figure 1-1: Hout Bay Harbour

1.2 Scope of Work

PRDW have carried out a condition assessment of all marine infrastructure within the Hout Bay harbour. The scope of work includes the following:

- Concrete repair and maintenance of existing marine structures;
- Maintenance and repair of quay furniture (bollards, fenders and access ladders);
- Repair and maintenance of the harbour slipways including rails, cradles and winches;
- Replacement of the shore crane;
- Removal of the 14 sunken fishing vessels;
- Maintenance dredging of isolated areas within the harbour basin; and
- Breakwater concrete cap repairs, and placement of additional concrete armour units.



2. HOUT BAY HARBOUR SCOPE OF WORKS

2.1 Harbour Description

Hout Bay is situated on the Atlantic coastline of the Cape Peninsula, approximately 20 km south of Cape Town. It is an important harbour for the fishing industry, for tourism and leisure craft. The commercial fishing industry traditionally relies mainly on pelagic fish, rock lobster and long line fishing. A significant eco-tourism industry has developed, with craft markets, restaurants and operators running boat trips to view seals and whales. The harbour has a water area of approximately 18.5 ha enclosed by the main and secondary breakwaters. A large portion of the water area in the Northern section of the harbour is occupied by private (club) floating moorings for leisure craft. The Southern portion of the basin is mainly used by the fishing industry. Figure 2-1 shows the Hout Bay Harbour and the different marine structures associated with it.



Figure 2-1: Hout Bay Marine Structures

A summary of the work required in the harbour is shown in Figure 2-2.






Figure 2-2: Work required in the Hout Bay Harbour



2.2 Concrete repairs

Table 2-1 shows typical concrete repair work required in Hout Bay harbour.

Table 2-1: Concrete repair of infrastructure




<p><u>Quay 1</u> Concrete repair along the cope edge and construction joints of quay 1. This work is typical along the length of a number of jetties within Hout Bay.</p>	
<p><u>Secondary Breakwater</u> Sections of the breakwater show signs of steel corrosion and require repair work.</p>	
<p><u>Jetty 2</u> Concrete repairs are required on the underside of jetties where the reinforcing steel is corroding and the concrete is spalling.</p>	



2.3 Bollards and Fenders

The bollards and fenders in Hout Bay harbour are in need of repair and maintenance work. Refer to Table 2-2 for the typical work required.

Table 2-2: Quay furniture in the harbour





<p><u>Quay 2</u> A large number of tyre fenders along the quay are damaged, badly worn or missing and need to be replaced. The corroded steel fixings also need to be replaced.</p>	
<p><u>Quay 2</u> As above</p>	
<p><u>Secondary Breakwater</u> Bollards need to be cleaned and painted. Corroded bollard holding down bolts must be replaced.</p>	



2.4 Slipways

Table 2-3 shows the work required on both the 90t and 50 tonne slipways.

Table 2-3: Slipway repair and maintenance work



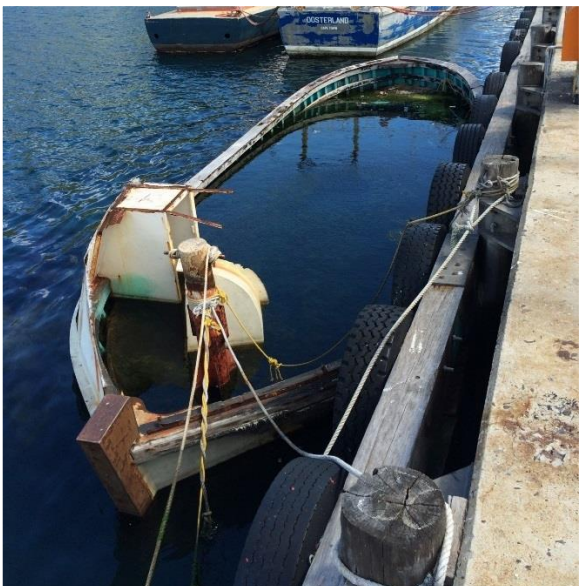
<p><u>Slipway cradle</u> Dismantle, clean and apply corrosion protection to the cradle structural steel.</p>	 A photograph showing a blue boat on a slipway cradle. The boat is elevated on a wooden structure, and the hull is visible. The cradle is made of metal and wood.
<p><u>Bogie wheels</u> Some of the bogie wheels are worn and corroded and tend to jam during operation. All bogie wheels need to be removed, serviced and re-installed. Badly damaged bogie wheels will be replaced</p>	 A close-up photograph of a bogie wheel on a slipway. The wheel is heavily corroded and appears to be jammed or stuck.
<p><u>Timber support blocks</u> Remove and replace damaged timber support blocks.</p>	 A photograph showing timber support blocks on a slipway. The blocks are made of wood and are supporting a metal structure. Some blocks appear to be damaged or missing.
<p><u>Slipway rails</u> The slipway rails are badly corroded and need to be replaced together with all rail fixings and sacrificial anodes.</p>	 A photograph showing the slipway rails. The rails are heavily corroded and appear to be in poor condition. They are supported by a metal structure.



2.5 Sunken Fishing Vessels

There are a total of 14 sunken vessels which need to be removed from the harbour. This is priority work as these vessels are taking up valuable berthing space and are a navigation hazard. Table 2-4 shows some of the sunken vessels which need to be removed.




Table 2-4: Sunken fishing vessels

<p><u>Lead-in Jetty (9)</u> There are nine sunken vessels along the lead-in jetty, making this jetty virtually unusable.</p>	
<p><u>Jetty 3 (3)</u> There are three sunken vessels along jetty 3.</p>	
<p><u>Secondary Breakwater (2)</u> There are two sunken vessels (one on top of the other) adjacent to the secondary breakwater.</p>	

2.6 Breakwater Repairs

The Hout Bay breakwaters are generally in good condition, however some repair and maintenance work is required on them. This includes the placement of additional armour units (maintenance purposes) and minor concrete repair works. Refer to Table 2-5.

Table 2-5: Breakwater repair and maintenance work






<p><u>Main Breakwater</u></p> <p>A few additional concrete armour units are required to fill a few gaps that have formed along the breakwater. (Approx. 20 additional units)</p>	
<p><u>Main Breakwater</u></p> <p>The concrete cap at the end of the main breakwater is in poor condition and needs replacement. The new concrete cap will be doweled into the existing one and will increase the breakwater height by 0.25m.</p>	
<p><u>Secondary Breakwater</u></p> <p>Concrete repairs are required on the breakwater capping and underside of the breakwater. This is a reinforced concrete suspended deck structure.</p>	



2.7 Rock Revetments

There are five rock revetments within Hout Bay Harbour, they all require maintenance to provide suitable protection to the adjacent landside infrastructure. This maintenance includes filling gaps in the revetments with armour rock – Refer to Table 2-6.

Table 2-6: Rock revetments

<p><u>Revetment 1</u></p>	
<p><u>Revetment 1</u></p>	
<p><u>Revetment 3</u></p>	
<p><u>Revetment 4</u></p>	
<p><u>Revetment 5</u></p>	



2.8 Dredging

The harbour basin depths are generally adequate for safe navigation and mooring; however, dredging is required along the slipway rails. The volume of material to be removed is nominal and is in the order of 900 m³. The material that needs to be dredged will be tested for contaminants. If contaminated, then it will be disposed of onshore at an approved landfill site. If the material is not contaminated, then it will either be disposed elsewhere within the harbour boundary or on the seaward side of the breakwaters. Figure 2-3 shows the extent of the dredging required for the slipway rails.

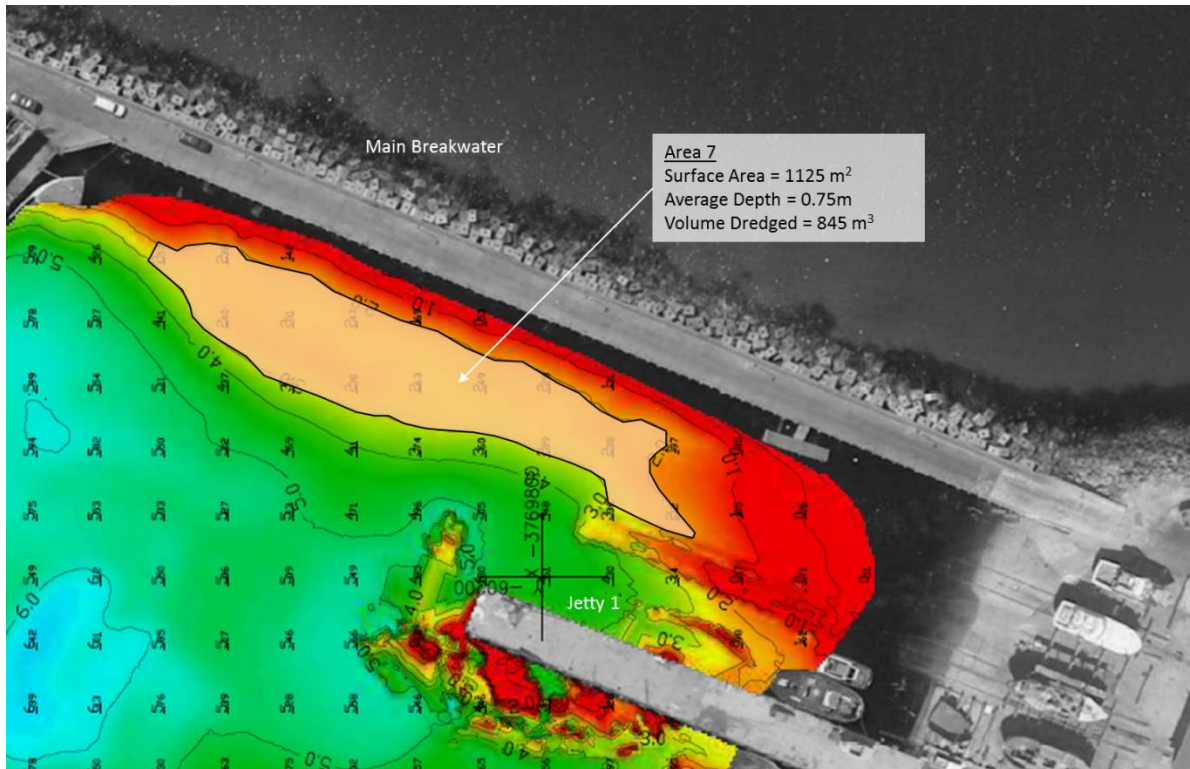


Figure 2-3: Hout Bay Harbour Dredging

Appendix B:

Proposed works on structures older than 60 years

**Professional Consultancy Services for Coastal Engineering Infrastructure
Activities – Proclaimed Fishing Harbours Western Cape**

Project Descriptions: Repairs and upgrades to structures older than 60 years

Hout Bay Harbour

REV.00

01 March 2017



COEGA DEVELOPMENT CORPORATION
South Africa



Professional Consultancy Services for Coastal Engineering Infrastructure Activities – Proclaimed Fishing Harbours Western Cape

Project Descriptions: Repairs and upgrades to structures older than 60 years

Hout Bay Harbour

S2042-1-TN-EN-201

01 March 2017

REV.	TYPE	DATE	EXECUTED	CHECK	APPROVED	CLIENT	DESCRIPTION / COMMENTS
00	A	01/03/2017	MGT	GPH			Project Descriptions: Heritage Application

TYPE OF ISSUE: (A) Draft (B) To bid or proposal (C) For Approval (D) Approved (E) Void

COEGA DEVELOPMENT CORPORATION
South Africa



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1. INTRODUCTION

1.1 Project Background

The National Department of Public Works (NDPW) has appointed the Coega Development Corporation (CDC) as the implementing agents for the repair, maintenance and upgrade of the 13 proclaimed Western Cape fishing harbours. The 13 fishing harbours have been split into four separate work packages. PRDW have been appointed by CDC for the professional consulting services required to repair, maintain and upgrade the marine infrastructure for Work Package 1 and 2, which includes Hout Bay, Kalk Bay, Gordons Bay, Hermanus (Work Package 1), and Saldanha Bay and Pepper Bay (Work Package 2).

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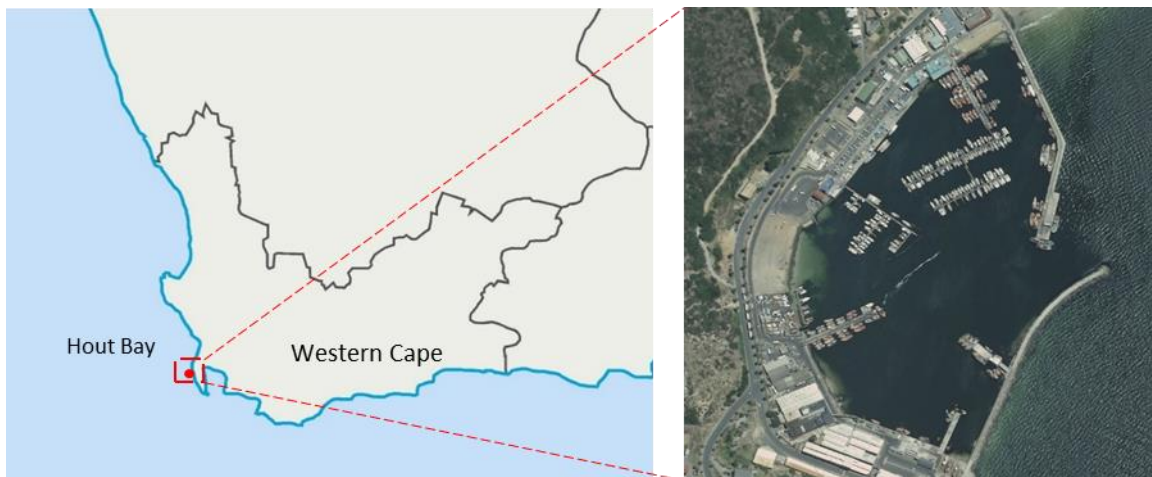


Figure 1-1: Hout Bay Harbour

1.2 Scope of Work

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2. HOUT BAY HARBOUR SCOPE OF WORKS

2.1 Harbour Description

Hout Bay is situated on the Atlantic coastline of the Cape Peninsula, approximately 20 km south of Cape Town. It is an important harbour for the fishing industry, for tourism and leisure craft. The commercial fishing industry traditionally relies mainly on pelagic fish, rock lobster and long line fishing. A significant eco-tourism industry has developed, with craft markets, restaurants and operators running boat trips to view seals and whales. Figure 2-1 Shows the Gordons Bay Harbour and the different marine structures associated with it.



Figure 2-1: Hout Bay Marine Structures



Hout harbour has a water area of approximately 18.5 ha enclosed by the main and secondary breakwaters. A large portion of the water area in the Northern section of the harbour is occupied by private (club) floating moorings for leisure craft. The Southern portion of the basin is mainly used by the fishing industry.

A summary of the work required in the harbour is shown in Figure 2-2.

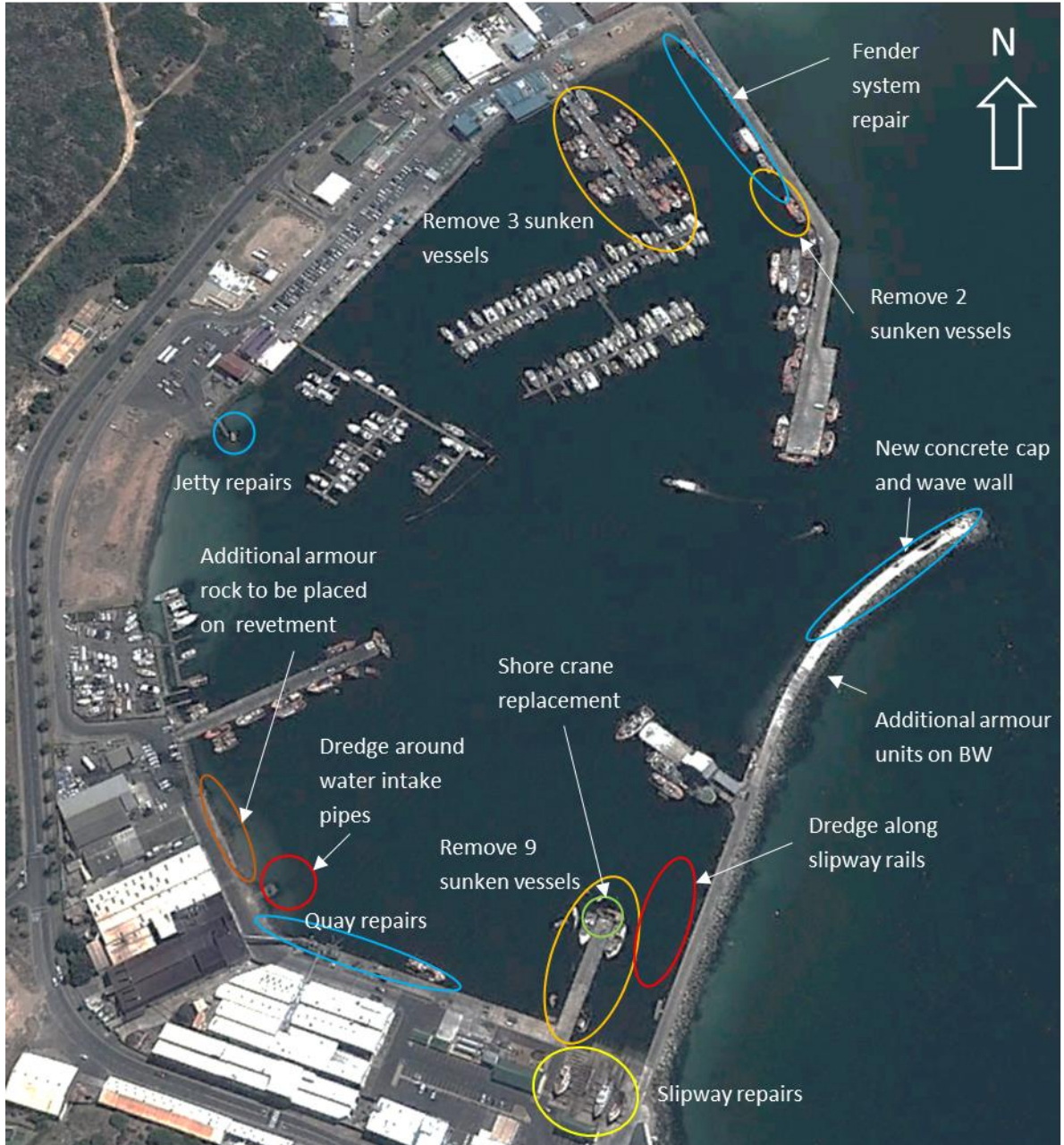


Figure 2-2: Work required in Hout Bay Harbour



2.2 Structures older than 60 years

The following structures listed in *Table 2-1* are older than 60 years.

Table 2-1: Structures older than 60 years

Hout Bay	Length (m)	Built	Age	Source of information	Repaired
Main Breakwater	453m	1939	78	As-built drawings, 1939	1972
Quay 1	145m	1950	67	As-built drawings, 1950	Gunite on underside and new capping

The proposed works on each of the above structures are provided below.

2.2.1 Main Breakwater

The main breakwater is a 453 m long rubble mound structure protected with Grobbelaar and Toskane armour units. The following repair work is required:

- Supply and place additional 3.6 tonne Toskane armour units in gaps along the breakwater;
- Cast a new concrete cap along the last 150m of the breakwater. This includes a wave wall, and steel reinforcing; and
- Removal of corroded and damaged existing precast wave wall units at the end of the breakwater.

Figure 2-3 shows the main breakwater structure in Hout Bay Harbour.

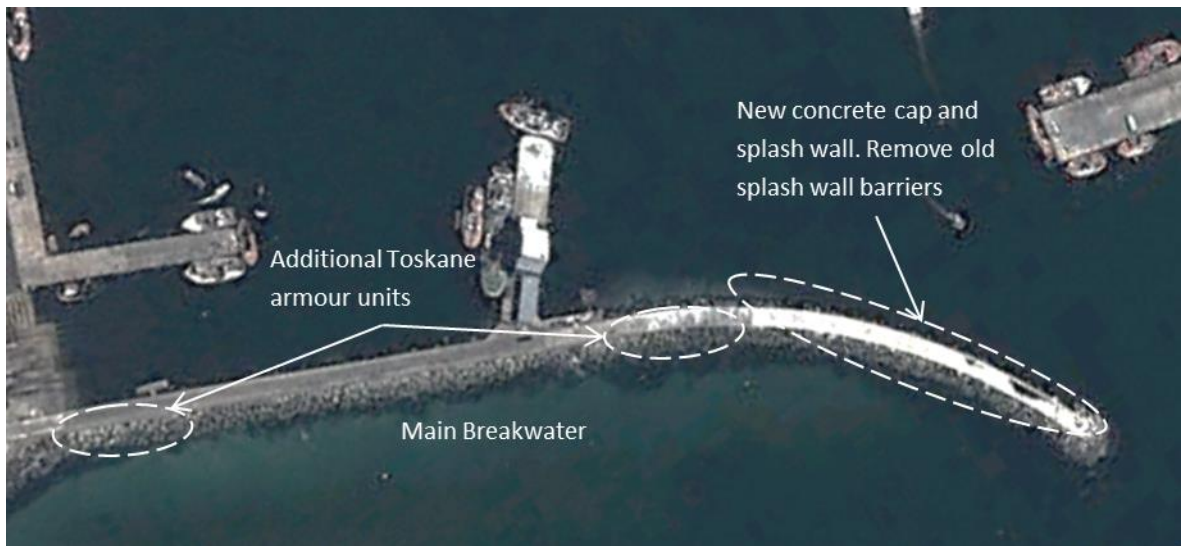





Figure 2-3: Main Breakwater Structure

Table 2-2 shows the typical repair work required for the Main Breakwater.

Table 2-2: Breakwater repair and maintenance work

<p><u>Main Breakwater – Armour units</u></p> <p>A few additional concrete armour units are required to fill a few gaps that have formed along the breakwater. (Approx. 20 additional units)</p>	
<p><u>Main Breakwater – Concrete capping</u></p> <p>The concrete cap at the end of the main breakwater is in poor condition and needs to be repaired by casting a new concrete cap along the existing surface.</p>	
<p><u>Main Breakwater – Splash barrier removal</u></p> <p>The splash wall barrier along the end of Hout Bay has become a safety hazard and must be removed.</p>	

Refer to Annexure A for additional figures of the Main Breakwater in Hout Bay Harbour.

2.2.2 Quay 1

A 145 m long concrete deck-on-pile structure used for offloading fish and servicing of trawlers. The following repair work is required:

- Concrete repair of 2 No. contraction joints;
- Minor concrete repair along the cope edge of quay 1;
- Repair, clean and paint bollards;
- Replace corroded and missing fender fixings;



- Replace damaged and missing fenders; and

Figure 2-4 shows the Quay 1 structure in Hout Bay Harbour.



Figure 2-4: Quay 1 Structure

Table 2-3 shows typical concrete repair work required for Quay 1 at Hout Bay harbour.

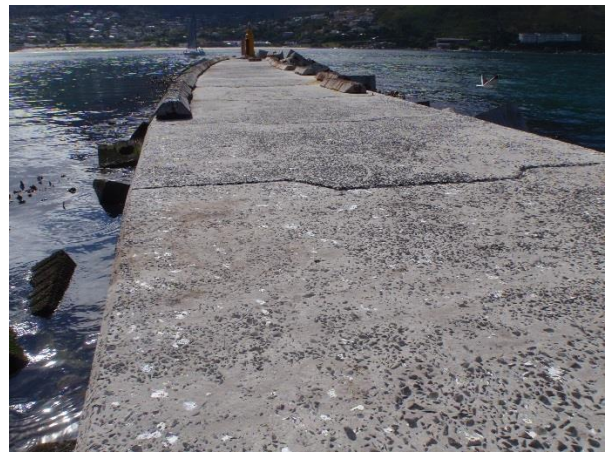
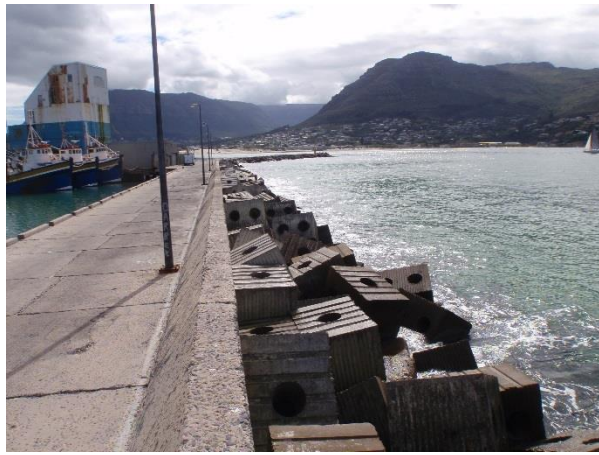
Table 2-3: Concrete repair of infrastructure

<p><u>Quay 1</u> Concrete repair along the cope edge and construction joints of quay 1.</p>	
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Refer to Annexure B for additional figures of Quay 1 in Hout Bay Harbour.

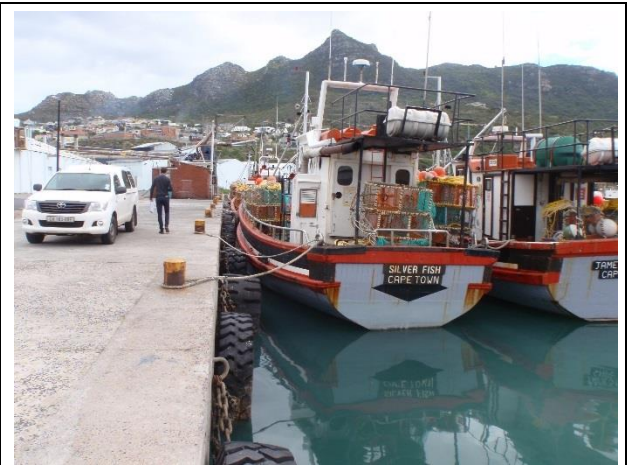
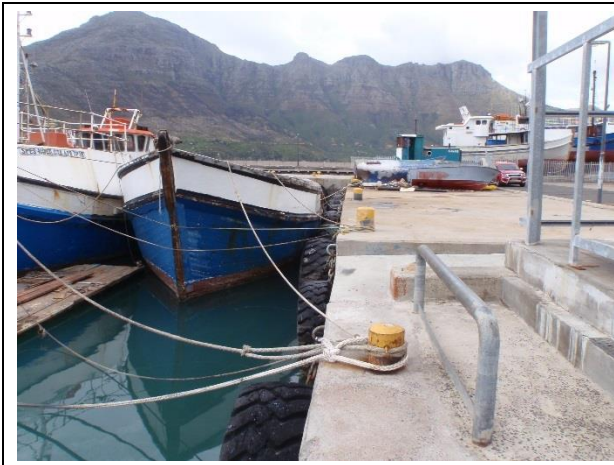


ANNEXURE A | MAIN BREAKWATER – ADDITIONAL FIGURES





ANNEXURE B | QUAY 1 – ADDITIONAL FIGURES



Appendix C:

Proposed dredging and dredge disposal

S2042: Western Cap Fishing Harbours – Work Package 1 **Dredge Areas and Disposal Sites – Hout Bay**

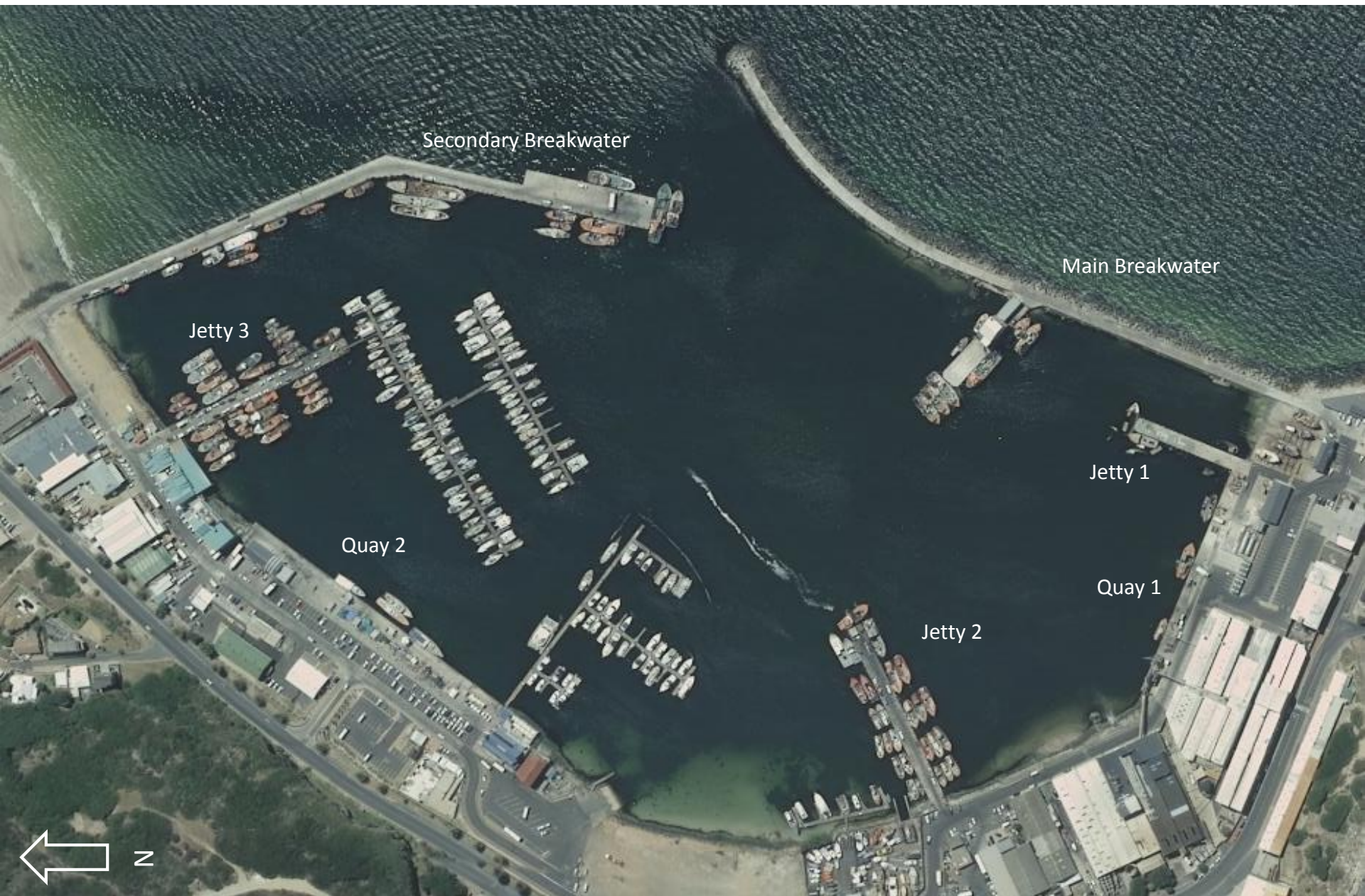
Professional Consultancy Services for Coastal Engineering Infrastructure Activities

10 April 2017



Western Cape Fishing Harbours

Hout Bay



Secondary Breakwater

Main Breakwater

Jetty 3

Jetty 1

Quay 2

Quay 1

Jetty 2

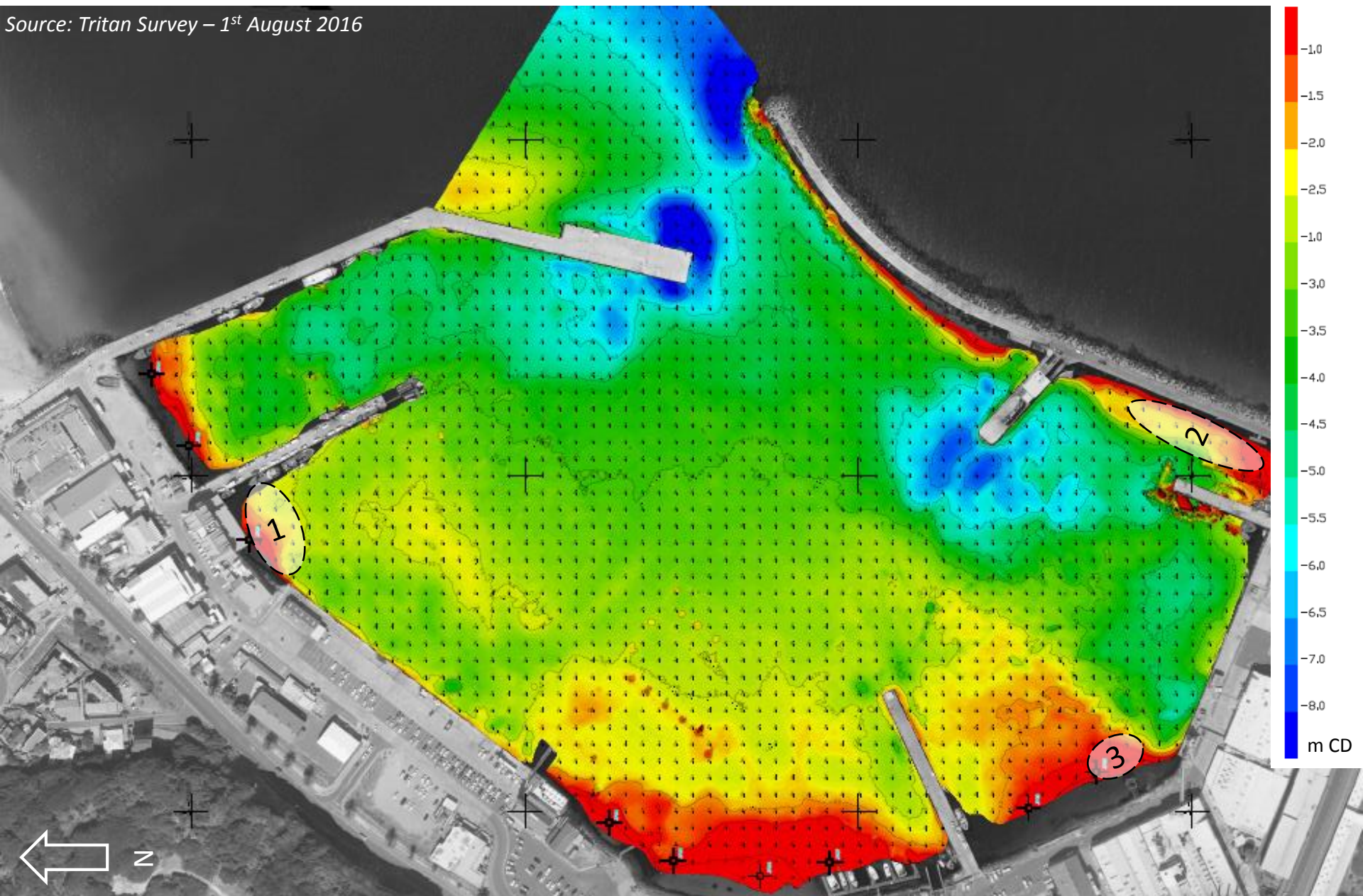


Western Cape Fishing Harbours

Hout Bay – Proposed Dredging Areas

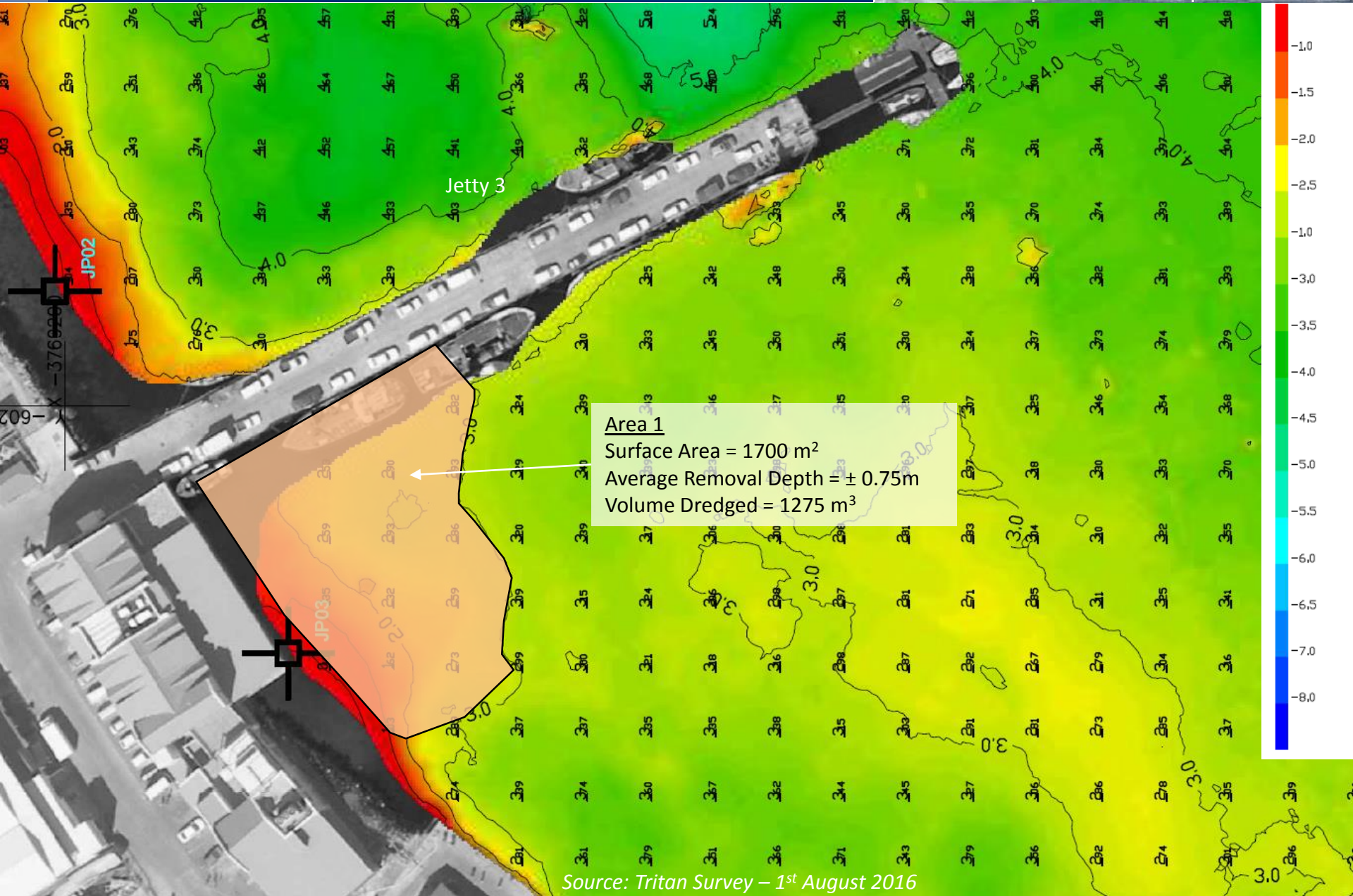


Source: Tritan Survey – 1st August 2016



Western Cape Fishing Harbours

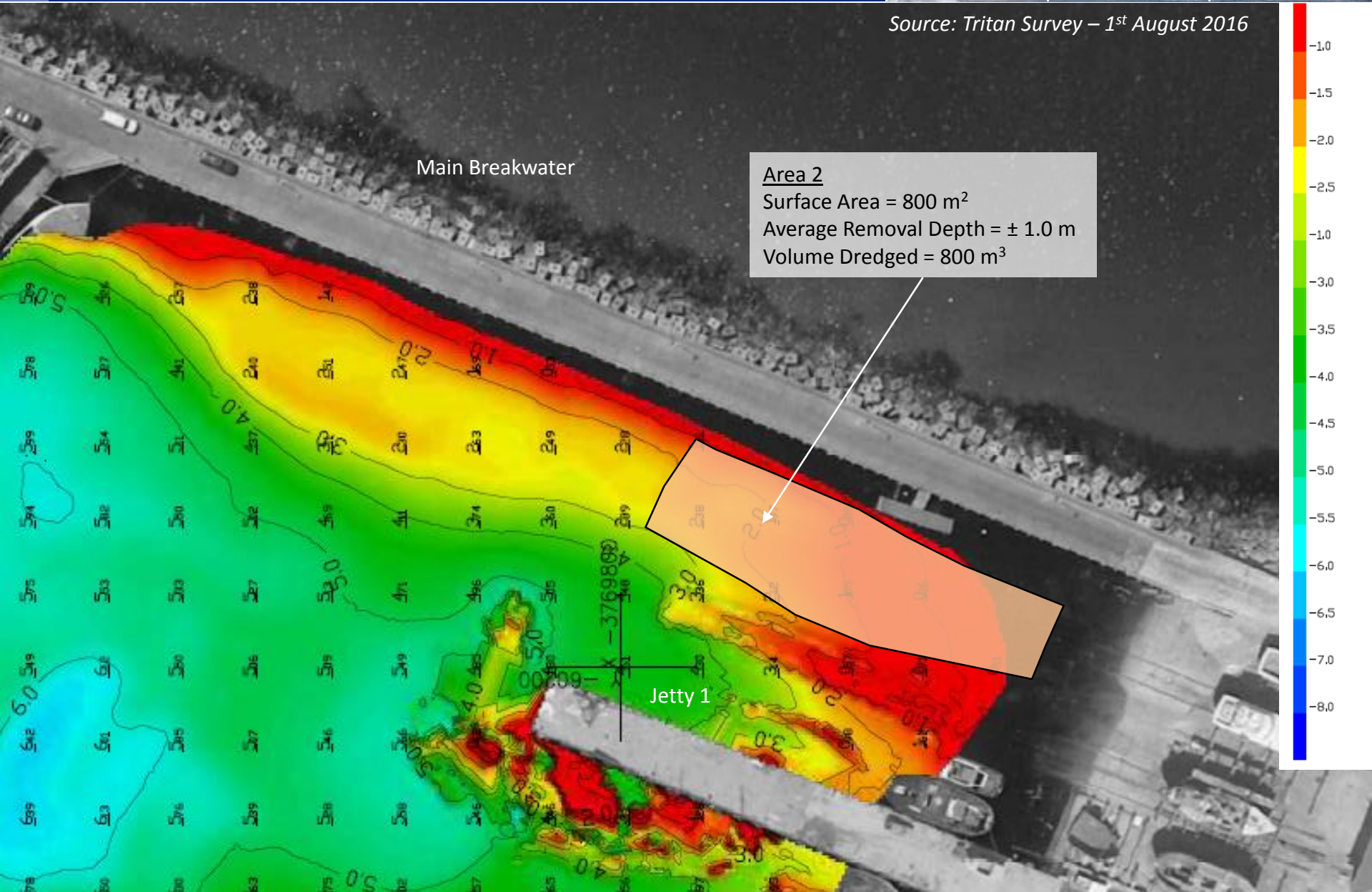
Hout Bay – Dredge Area 1



Western Cape Fishing Harbours

Hout Bay – Dredge Area 2

Source: Tritan Survey – 1st August 2016



Main Breakwater

Area 2
Surface Area = 800 m²
Average Removal Depth = ± 1.0 m
Volume Dredged = 800 m³

Jetty 1

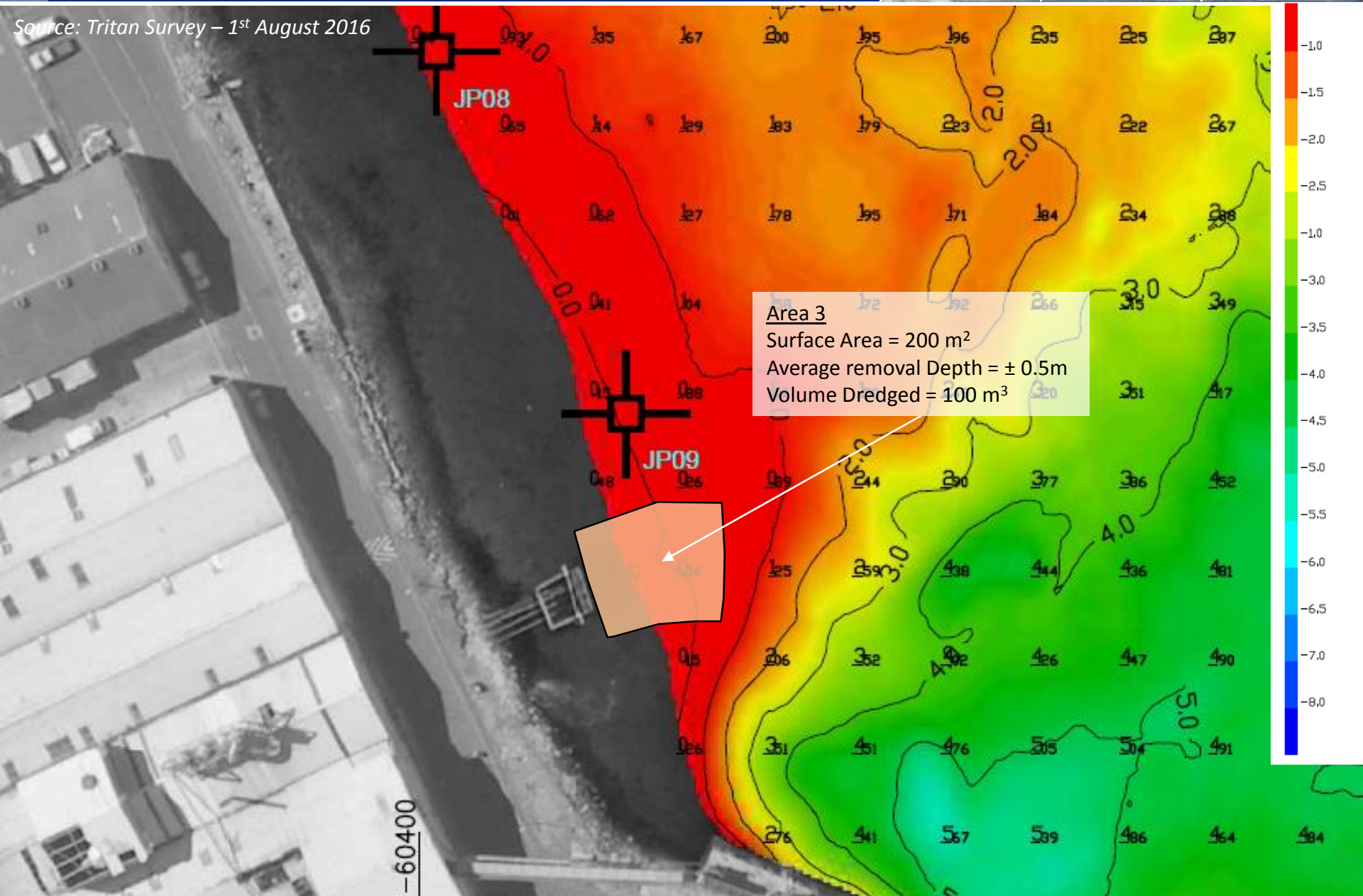


Western Cape Fishing Harbours

Hout Bay – Dredge Area 3



Source: Tritan Survey – 1st August 2016

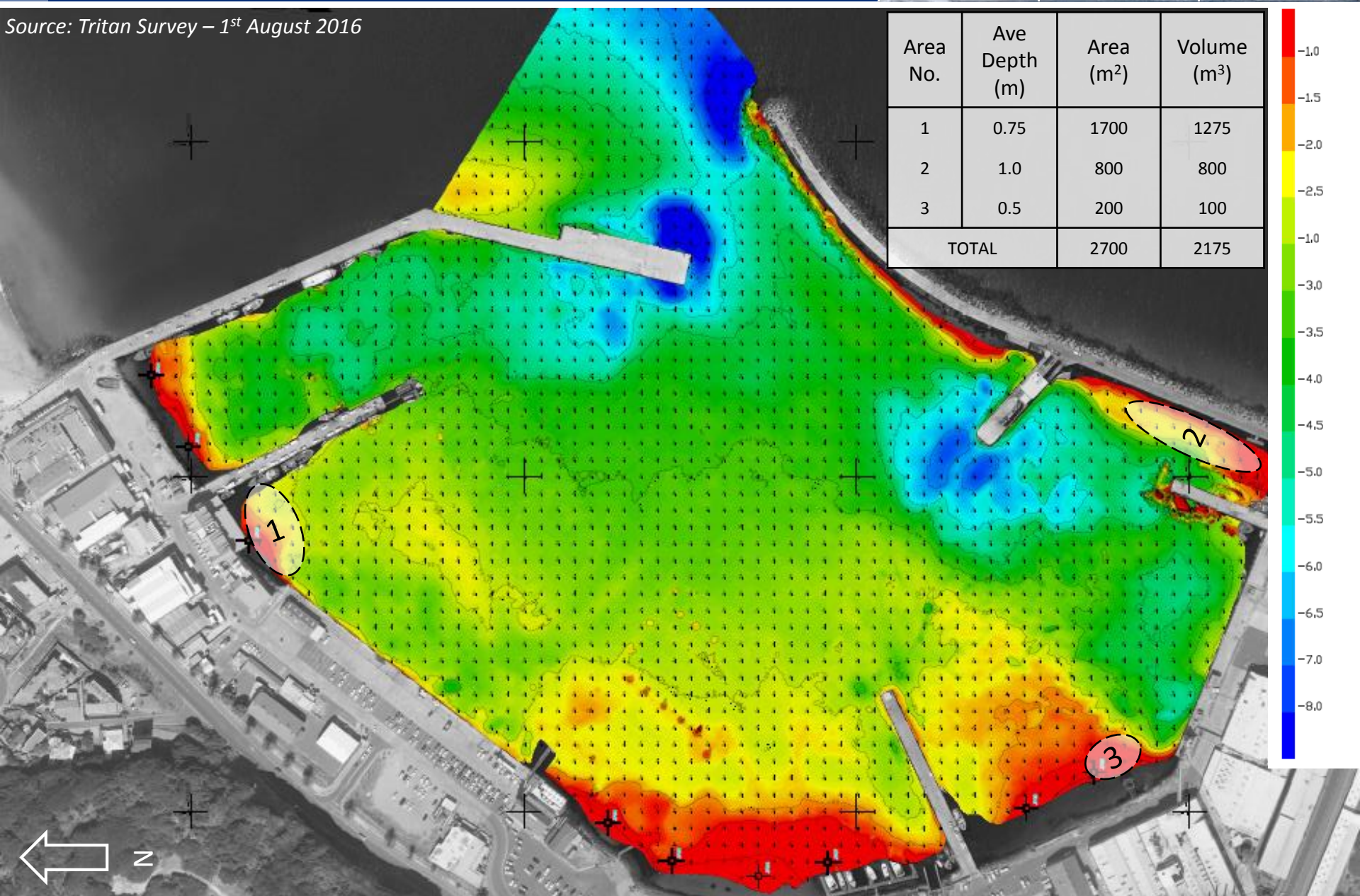


Western Cape Fishing Harbours

Hout Bay – Total Dredge Areas and Volumes



Source: Tritan Survey – 1st August 2016

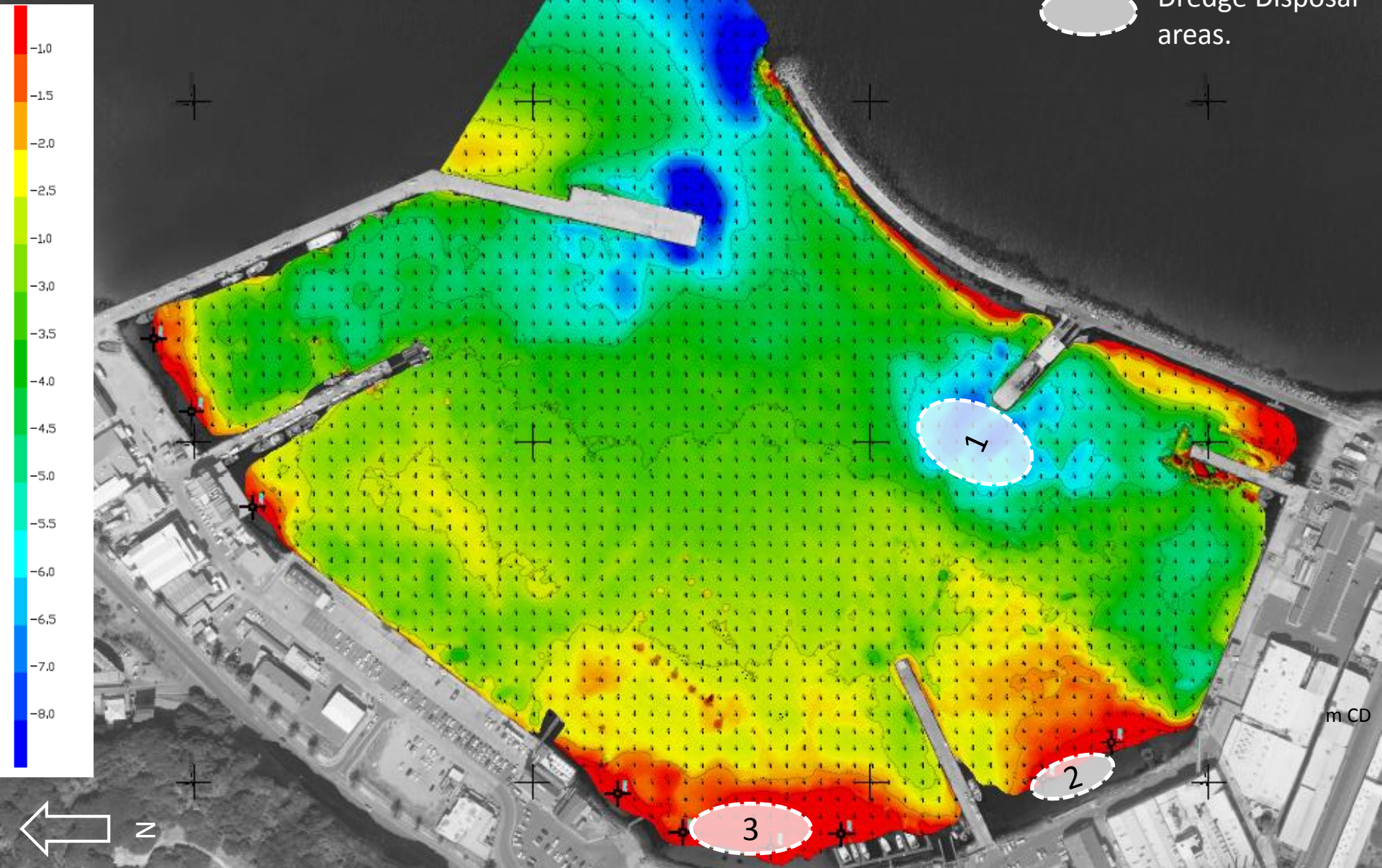


Western Cape Fishing Harbours

Hout Bay – Dredge Disposal Sites



Source: Tritan Survey – 1st August 2016



Western Cape Fishing Harbours

Hout Bay – Disposal Area 1



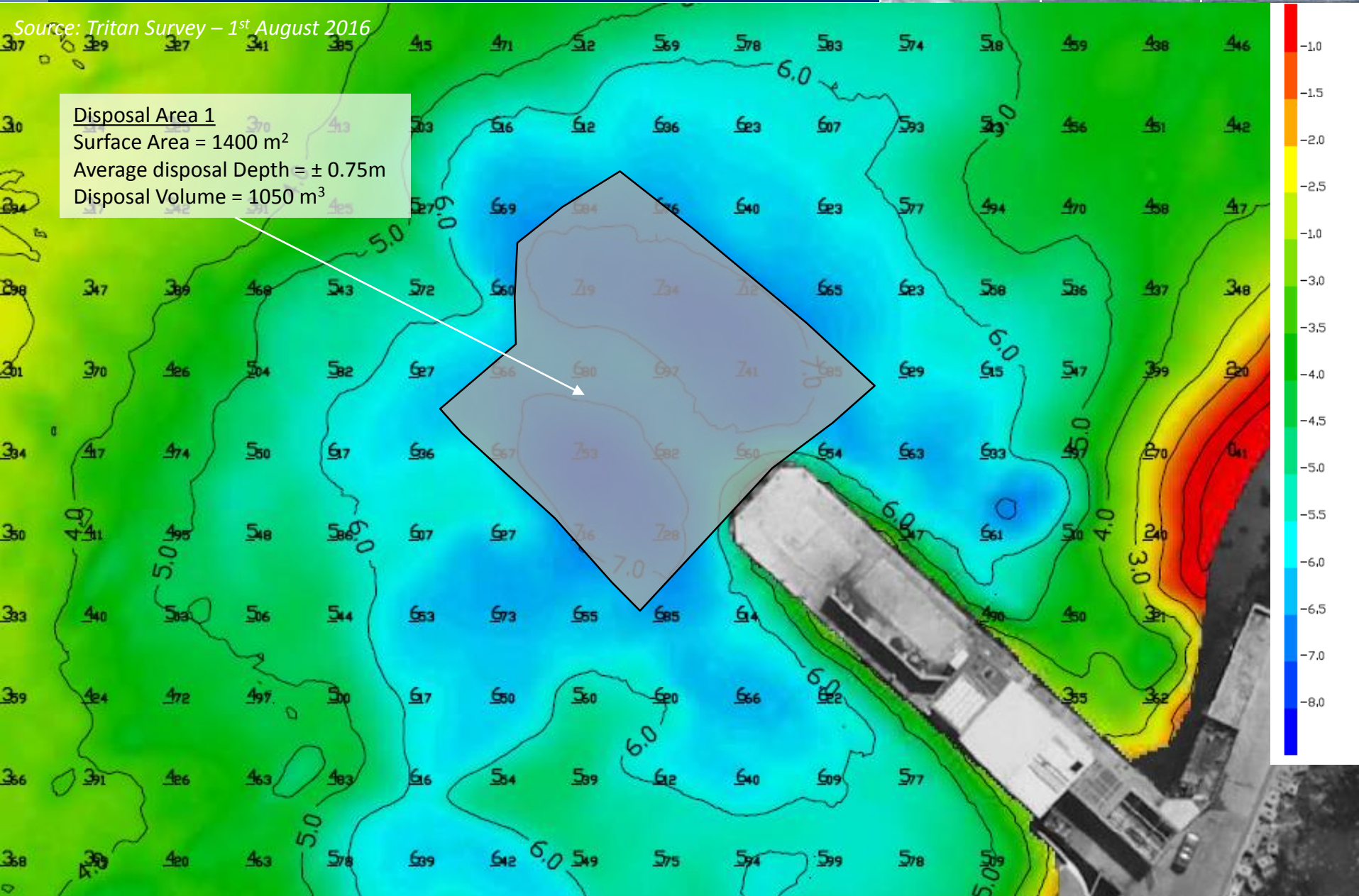
Source: Tritan Survey – 1st August 2016

Disposal Area 1

Surface Area = 1400 m²

Average disposal Depth = ± 0.75m

Disposal Volume = 1050 m³

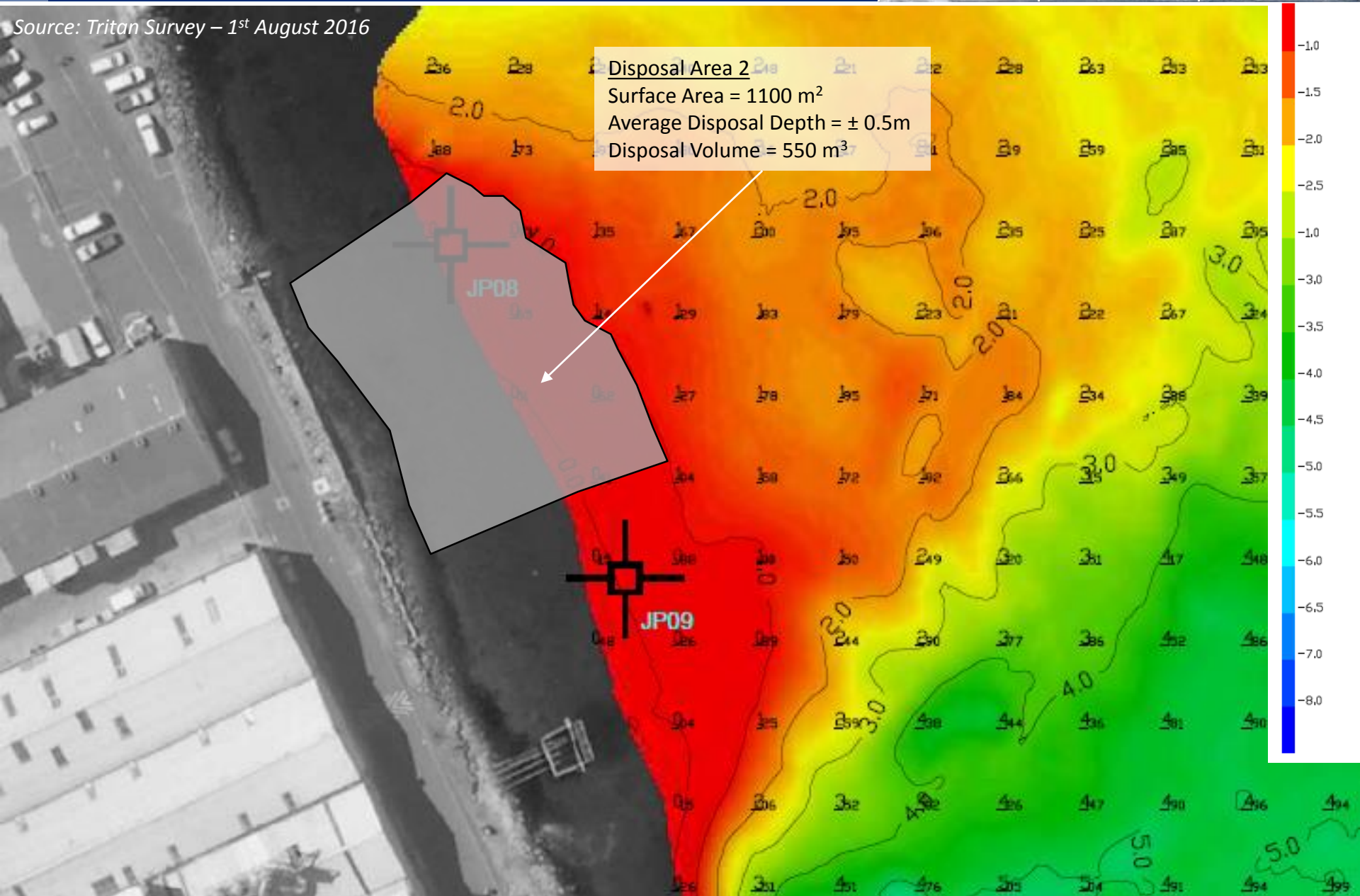


Western Cape Fishing Harbours

Hout Bay – Disposal Area 2



Source: Tritan Survey – 1st August 2016

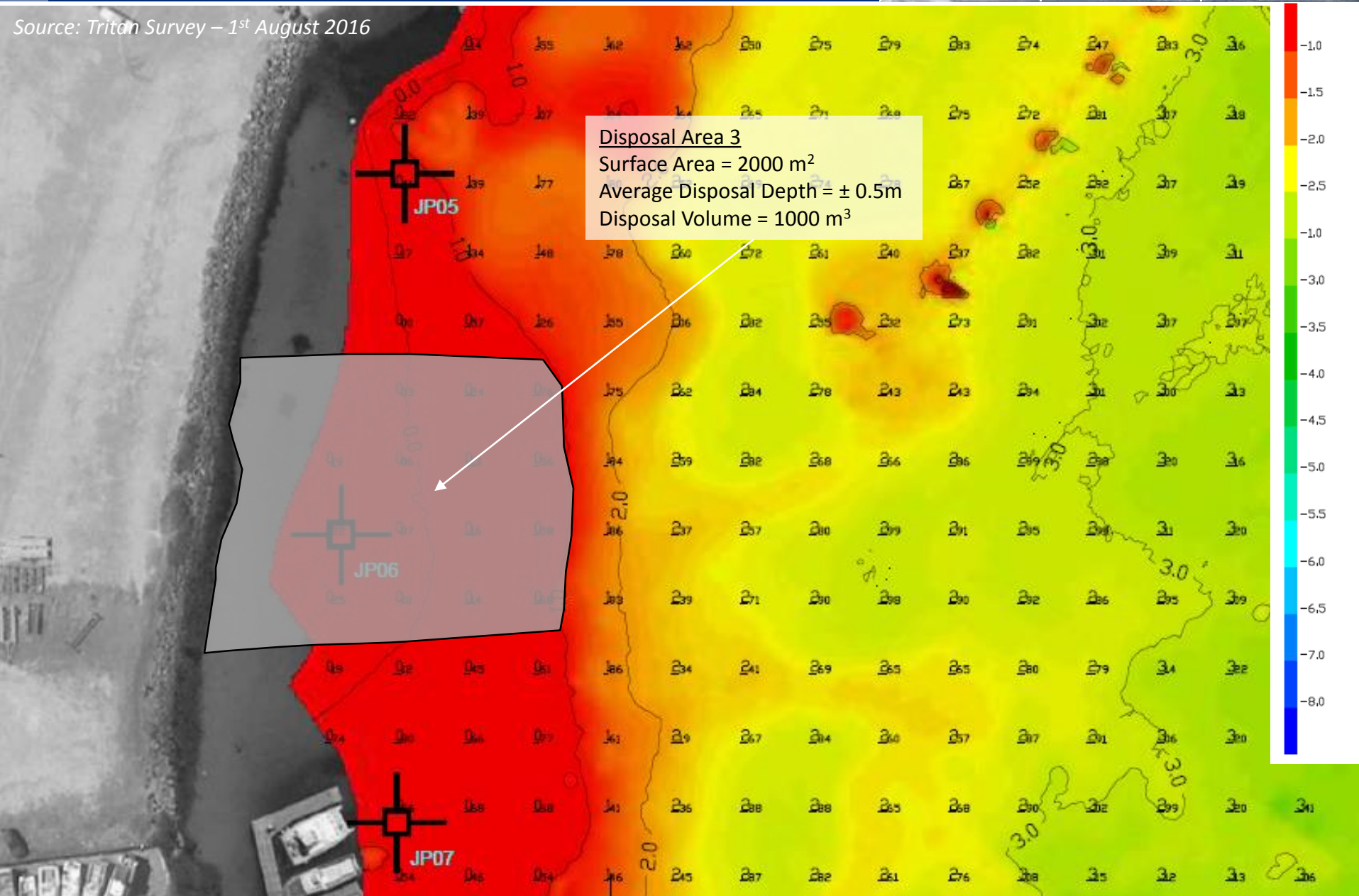


Western Cape Fishing Harbours

Hout Bay – Disposal Area 3



Source: Tritan Survey – 1st August 2016

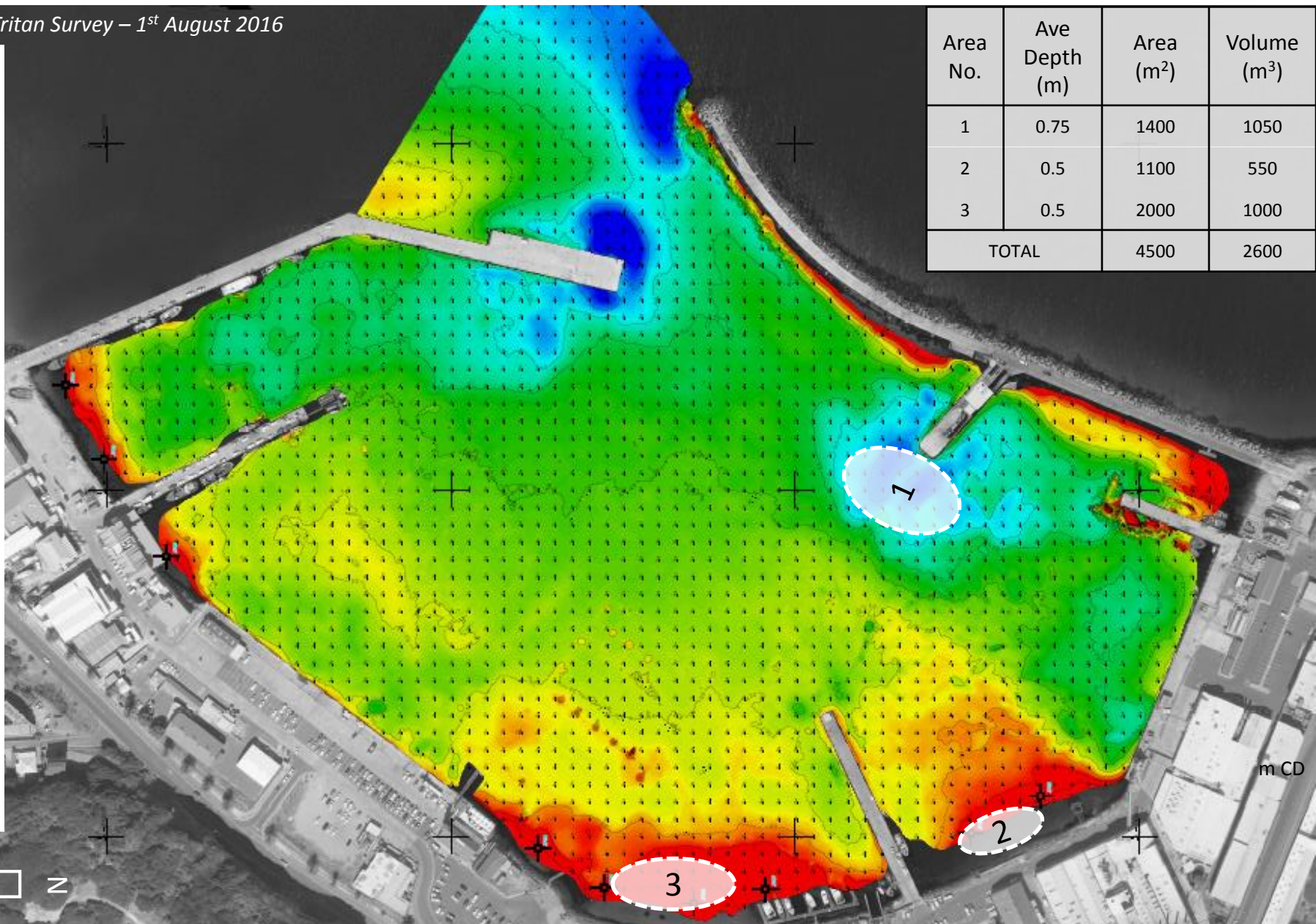
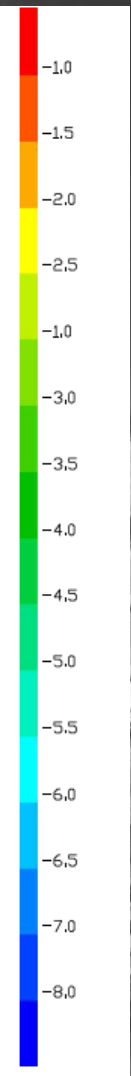


Western Cape Fishing Harbours

Hout Bay – Total Disposal Areas and Volumes



Source: Tritan Survey – 1st August 2016



Area No.	Ave Depth (m)	Area (m ²)	Volume (m ³)
1	0.75	1400	1050
2	0.5	1100	550
3	0.5	2000	1000
TOTAL		4500	2600

m CD