



**REFERENCE:** 16/3/3/5/A7/4/3056/22  
**NEAS REFERENCE:** WCP/EIA/AMEND/0000680/2022  
**DATE OF ISSUE:** 23 November 2022

The Board of Directors  
V&A Waterfront Holdings (Pty) Ltd.  
P.O. Box 5001  
V&A Waterfront  
CAPE TOWN  
8002

**Attention: Mr. Mark Noble**

E-mail: [mnoble@waterfront.co.za](mailto:mnoble@waterfront.co.za)

Dear Sir

**APPLICATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED) FOR THE PART 1 AMENDMENT TO THE ENVIRONMENTAL AUTHORISATION ISSUED ON 01 AUGUST 2022 (REFERENCE NO.: 16/3/3/2/A7/4/3047/21): PROPOSED DEVELOPMENT OF A DISTRICT SEAWATER COOLING SYSTEM FOR THE EAST PIER PRECINCT ON ERVEN 176352 AND 173713, V&A WATERFRONT, CAPE TOWN.**

1. With reference to the above application, the competent authority hereby notifies you of its decision to **grant** the amended Environmental Authorisation, attached herewith, together with the reasons for the decision.
2. In terms of Regulation 4 of the Environmental Impact Assessment Regulations, 2014 (as amended), you are instructed to ensure, within 14 days of the date of the amended Environmental Authorisation, that all registered interested and affected parties ("I&APs") are provided with access to and reasons for the decision, and that all registered I&APs are notified of their right to appeal.
3. Your attention is drawn to Chapter 2 of the National Appeal Regulations, 2014 (as amended), which prescribes the appeal procedure to be followed. This procedure is summarised in the attached amended Environmental Authorisation.

Yours faithfully

**MR. ZAAHIR TOEFY**  
**DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)**  
**DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING**

CC: (1) Mr. Nick Steytler (KHULA Environmental Consultants)  
(2) Ms. Maurietta Stewart (City of Cape Town)

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## AMENDED ENVIRONMENTAL AUTHORISATION

**APPLICATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) ("NEMA") AND THE ENVIRONMENTAL IMPACT ASSESSMENT ("EIA") REGULATIONS, 2014 (AS AMENDED) FOR THE AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION ISSUED ON 01 AUGUST 2022 (REFERENCE NO.: 16/3/3/2/A7/4/3047/21): PROPOSED DEVELOPMENT OF A DISTRICT SEAWATER COOLING SYSTEM FOR THE EAST PIER PRECINCT ON ERVEN 176352 AND 173713, V&A WATERFRONT, CAPE TOWN.**

With reference to your application for the abovementioned, find below the amendment to the Environmental Authorisation (hereinafter referred to as an "Environmental Authorisation") with respect to this application.

## ADDENDUM TO ENVIRONMENTAL AUTHORISATION

### A. DECISION

By virtue of the powers conferred on it by the NEMA and the EIA Regulations, 2014 (as amended), the competent authority herewith grants the amendment of the Environmental Authorisation issued on 01 August 2022 (Reference No.: 16/3/3/2/A7/4/3047/21).

**The Activity Description under Section B of the Environmental Authorisation issued on 01 August 2022 reads as follows:**

*"The proposal entails the development of a district seawater cooling system for the East Pier Precinct on Erven 176352 and 173713, V&A Waterfront, Cape Town.*

*The seawater district cooling system will be installed for the cooling of the V&A retail mall, East Pier Precinct buildings and the Table Bay Hotel. The plant will also provide condenser water for the chillers in these areas. The seawater cooling plant will provide 54% (6400kW) of the total cooling required and the additional 46% (5500kW) will be provided by existing chillers. The proposed system will have a capacity of approximately 21 000kW. The remaining 14 600kW of the system will be for heat rejection of the existing chillers installed in the V&A retail mall, East Pier Precinct buildings and Table Bay Hotel. The total (peak) flow rate of the proposed system will be 862ℓ/s (with potential losses, fouling and expansion). The proposed seawater cooling system will discharge, at maximum, 958ℓ/s with a maximum temperature difference of 7-10°C above the intake water.*

The proposed cooling system will comprise of the following three components:

Intake:

The intake pipework will be fixed along the East Pier wall and will lead to the plant room located in the parking garage beneath the to-be upgraded helipad situated on Erf No. 176352. The intake will be beneath the water surface and approximately 1m above the seabed to prevent contaminated sediment entrainment and the possibility of abstracting surface oil or fuel spills into the system. The system will also contain two sets of filters and an auto backwash cycle is run that discharges back into the intake basin, but sufficiently away from the intake location.

#### Cooling plant:

The cooling plant will be located in the parking garage beneath the to-be upgraded helipad on Erf No. 176352. The plant will comprise of the following:

- 10 X heat exchangers (20 944kW heat exchange capacity);
- 10 X sea water pumps (total flow rate capacity: 958ℓ/s);
- 10 X pre-cooling/heat/condenser water pumps (total flow rate capacity: 862ℓ/s); and
- 10 X inlet screens (cleaned manually).

#### Discharge:

The outfall will consist of six HDPE pipes discharging 3m above the mean sea level onto the dolosse along the northern seaward edge of the breakwater. The pipes will be spaced at 5m centre to centre distance on the Breakwater Harbour wall. The pipes will penetrate the upper mass concrete surface of the harbour wall and discharge on the seaward edge behind the dolosse.

#### Biocide dosing:

Daily sodium hypochlorite dosing will be required at the intake to prevent marine fouling of the seawater intake systems and heat exchangers. A 12.5% commercially available sodium hypochlorite solution will be used, diluted on-site to a 3% solution prior to application to allow the solution to be more stable and to reduce the gas producing nature of the solution. Each of the ten intake systems will be dosed sequentially with 1.5ℓ of solution in the suction lines, just after the intake basket, with 40-minute intervals between the dosing of each system. Whilst dosing the intake, the seawater extraction pump will be switched off for a short period of time to allow the chemical dose to make contact with the intake system. Thereafter, the resultant mixture of sodium hypochlorite will be flushed through the cooling system and out into Table Bay via the discharge on the northern side of the Breakwater. The dosing system will be designed to be interlocked with the operation of the pump. If the pump is not operational, the dosing will not operate. The dosing is also controlled by a dosing pump which can only dose a pre-set quantity into the intake.

A normally closed valve will be used for the dosing feed from the dosing pump to the dosing points which opens on receiving a signal from a controller. In addition, a Building Management System ("BMS") will be installed to ensure that only operational intakes are dosed. This will negate the possibility of water quality impacts arising due to operational failure. The BMS will have control points within which the plant will operate. Should the plant operate outside of these parameters, an alarm will alert maintenance staff, who will respond to the problem. If the faults are critical, the plant will shut down immediately upon receiving the alarm".

#### **This is herewith replaced with the following:**

The proposal entails the development of a district seawater cooling system for the East Pier Precinct on Erven 176352 and 173713, V&A Waterfront, Cape Town.

The seawater district cooling system will be installed for the cooling of the V&A retail mall, East Pier Precinct buildings and the Table Bay Hotel. The plant will also provide condenser water for the chillers in these areas. The seawater cooling plant will provide 54% (6400kW) of the total cooling required and the additional 46% (5500kW) will be provided by existing chillers. The proposed system will have a capacity of approximately 21 000kW. The remaining 14 600kW of the system will be for heat rejection of the existing chillers installed in the V&A retail mall, East Pier Precinct buildings and Table Bay Hotel. The total (peak) flow rate of the proposed system will be 862ℓ/s (with potential losses, fouling and expansion). The proposed seawater cooling system will discharge, at maximum, 958ℓ/s with a maximum temperature difference of 7-10°C above the intake water.

The proposed cooling system will comprise of the following three components:

#### Intake:

The intake pipework will be fixed along the East Pier wall and will lead to the plant room located in the parking garage beneath the to-be upgraded helipad situated on Erf No. 176352. The intake will be beneath the water surface and approximately 1m above the seabed to prevent contaminated sediment entrainment and the possibility of abstracting surface oil or fuel spills into the system. The system will also contain two sets of filters and an auto backwash cycle that discharges back into the intake basin, but sufficiently away from the intake location.

#### Cooling plant:

The cooling plant will be located on the first floor of the Desalination Plant Building on Erf No. 176352. The plant will comprise of the following:

- 10 X heat exchangers (20 944kW heat exchange capacity);
- 10 X sea water pumps (total flow rate capacity: 958ℓ/s);
- 10 X pre-cooling/heat/condenser water pumps (total flow rate capacity: 862ℓ/s); and
- 10 X inlet screens (cleaned manually).

#### Discharge:

The outfall will consist of six HDPE pipes discharging 3m above the mean sea level onto the dolosse along the northern seaward edge of the breakwater. The pipes will be spaced at 5m centre to centre distance on the Breakwater Harbour wall. The pipes will penetrate the upper mass concrete surface of the harbour wall and discharge on the seaward edge behind the dolosse.

#### Biocide dosing:

Daily sodium hypochlorite dosing will be required at the intake to prevent marine fouling of the seawater intake systems and heat exchangers. A 12.5% commercially available sodium hypochlorite solution will be used, diluted on-site to a 3% solution prior to application to allow the solution to be more stable and to reduce the gas producing nature of the solution. Each of the ten intake systems will be dosed sequentially with 1.5ℓ of solution in the suction lines, just after the intake basket, with 40-minute intervals between the dosing of each system. Whilst dosing the intake, the seawater extraction pump will be switched off for a short period of time to allow the chemical dose to make contact with the intake system. Thereafter, the resultant mixture of sodium hypochlorite will be flushed through the cooling system and out into Table Bay via the discharge on the northern side of the Breakwater. The dosing system will be designed to be interlocked with the operation of the pump. If the pump is not operational, the dosing will not operate. The dosing is also controlled by a dosing pump which can only dose a pre-set quantity into the intake.

A normally closed valve will be used for the dosing feed from the dosing pump to the dosing points which opens on receiving a signal from a controller. In addition, a Building Management System ("BMS") will be installed to ensure that only operational intakes are dosed. This will negate the possibility of water quality impacts arising due to operational failure. The BMS will have control points within which the plant will operate. Should the plant operate outside of these parameters, an alarm will alert maintenance staff, who will respond to the problem. If the faults are critical, the plant will shut down immediately upon receiving the alarm.

## **B. REASONS FOR THE DECISION:**

In reaching its decision, the competent authority took, *inter alia*, the following into consideration:

- (a) The information contained in the application form received by the competent authority via electronic mail correspondence on 01 November 2022.
- (b) The application is for a non-substantive amendment to the Environmental Authorisation and will not change the scope of the Environmental Authorisation issued on 01 August 2022.
- (c) No additional impacts are anticipated due to the proposed amendment. This can be justified as follows:
  - i) The proposed amendment will not result in a change in the nature of the impacts nor an increase in the nature of the impacts.
  - ii) The proposed amendment is required to optimise the use of developable land.
  - iii) The district seawater plant room will be relocated from its authorised location in the basement parking beneath the helipad on Erf No. 176352 to the first floor of the yet-to-be constructed desalination plant for the V&A Waterfront which is also located on Erf No. 176352.
  - iv) The East Pier Precinct is undergoing various upgrades, including the upgrade of the helipad.
  - v) By relocating the seawater cooling plant from the basement parking area beneath the helipad to within the desalination building will allow for better use of the basement parking area.
  - vi) This will furthermore place two types of utilities infrastructure (the desalination plant and the seawater cooling plant) in the same area, which is more compatible in terms of urban design.
- (d) The amendment is administrative in nature and no impacts are associated with the application for amendment.
- (e) The environment and the rights and interests of interested and affected parties ("I&APs") are not likely to be affected.
- (f) The conditions contained in the Environmental Authorisation issued on 01 August 2022 still remain unchanged and in force.

### **C. CONDITION:**

1. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision–
  - 1.1 notify all registered I&APs of –
    - 1.1.1 the outcome of the application;
    - 1.1.2 the reasons for the decision as included in Section B;
    - 1.1.3 the date of the decision; and
    - 1.1.4 the date when the decision was issued.
  - 1.2 draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeal Regulations, 2014 (as amended) detailed in Section D below;
  - 1.3 draw the attention of all registered I&APs to the manner in which they may access the decision; and
  - 1.4 provide the registered I&APs with:
    - 1.4.1 the name of the holder (entity) of this Environmental Authorisation;
    - 1.4.2 name of the responsible person for this Environmental Authorisation;
    - 1.4.3 postal address of the holder;
    - 1.4.4 telephonic and fax details of the holder;
    - 1.4.5 e-mail address, if any, of the holder; and
    - 1.4.6 the contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered Interested and Affected Parties in the event that an appeal is lodged in terms of the National Appeal Regulations, 2014 (as amended).

### **D. APPEALS:**

1. Appeals must comply with the provisions contained in the National Appeal Regulations, 2014 (as amended).

An appellant must –

- 1.1 Submit an appeal in accordance with Regulation 4 to the appeal administrator, within 20 (twenty) calendar days from the date the applicant notified registered I&APs of this decision;
- 1.2 If the appellant is the applicant, provide any registered I&AP, any Organ of State and the decision-maker with a copy of the appeal lodged with the appeal administrator;
- 1.3 If the appellant is a person other than the applicant, provide the applicant, any registered I&AP, any Organ of State and the decision-maker with a copy of the appeal lodged with the appeal administrator;
- 1.4 The applicant (if not the appellant), the decision-maker, I&APs and Organs of State must submit their responding statement, if any, to the appeal authority and the appellant within 20 days from the date of receipt of the appeal submission;
- 1.5 The appeal form/s must be submitted by means of one of the following methods:

By post: Attention: Mr. Marius Venter  
Western Cape Ministry of Local Government, Environmental Affairs  
and Development Planning  
Private Bag X9186  
CAPE TOWN  
8000

By facsimile: (021) 483 4174; or

By hand: Attention: Mr. Marius Venter (Tel: 021 483 3721), Room 809  
8<sup>th</sup> Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

By e-mail: [DEADP.Appeals@westerncape.gov.za](mailto:DEADP.Appeals@westerncape.gov.za)

- 1.6 An electronic copy (word document format) of the appeal and supporting documents must also be submitted; and
- 1.7 A prescribed appeal form, as well as assistance regarding the appeal processes is obtainable from the office of the appeal authority at: Tel. (021) 483 3721, E-mail [DEADP.Appeals@westerncape.gov.za](mailto:DEADP.Appeals@westerncape.gov.za) or URL <http://www.westerncape.gov.za/eadp>.

## E. DISCLAIMER

The Western Cape Government, the Local Authority, committees or any other public authority or organisation appointed in terms of the conditions of this Amended Environmental Authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is greatly appreciated.

Yours faithfully

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**MR. ZAAHIR TOEFY**  
**DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)**  
**DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING**

**DATE OF DECISION: 23 NOVEMBER 2022**

CC: (1) Mr. Nick Steytler (KHULA Environmental Consultants)  
(2) Ms. Maurietta Stewart (City of Cape Town)

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