Western Cape Government
Environmental Affairs and Development Planning

DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 1)

REFERENCE NUMBER: 16/3/3/1/A1/37/3007/20
NEAS REFERENCE: WCP/EIA/0000736/2020
ENQUIRIES: Mr. R. Chambeau
DATE OF ISSUE: **13 NOVEMBER 2020**

ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): PROPOSED UPGRADE OF THE BAYSIDE CANAL AND ASSOCIATED INFRASTRUCTURE, TABLEVIEW.

With reference to your application for the abovementioned, find below the outcome with respect to this application.

DECISION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in section B below with respect to the Preferred Alternative described in the Basic Assessment Report ("BAR"), dated July 2020.

The applicant for this Environmental Authorisation is required to comply with the conditions set out in section F below.

A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

The Municipal Manager
City of Cape Town: Transport for Cape Town - Infrastructure
P.O. Box 35
MILNERTON
7435

Tel: (021) 444 5763
E-mail: GilbertGawain.Titus@capetown.gov.za

The abovementioned applicant is the holder of this Environmental Authorisation and is hereinafter referred to as "**the holder**".

B. LIST OF ACTIVITIES AUTHORISED

Listed Activities	Activity/Project Description
Listing Notice 1 of the NEMA EIA Regulations, 2014, (as amended): Activity Number: 19 Activity Description: *The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse.* *but excluding where such infilling, depositing, dredging, excavation, removal of moving-* *(a) will occur behind a development setback;* *(b) is for maintenance purposes undertaken in accordance with a maintenance management plan;* *(c) falls within the ambit of activity 21 in this Notice, in case that activity applies;* *(d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or* *(e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.*	The proposed upgrade to the Bayside Canal and associated infrastructure entails the development of a stormwater treatment system, a bypass channel and the lining of the Bayside Canal between Blaauwberg Road and the canal outlet would require the dredging, excavation, removal and/or moving of more than 10 m^3 of soil within the northern portions of Rietvlei wetlands.
Activity Number: 19A Activity Description: *The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from-* *(i) the seashore;* *(ii) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater;* *(iii) the sea; -* *but excluding where such infilling, depositing, dredging, excavation, removal of moving-* *(f) will occur behind a development setback;* *(g) is for maintenance purposes undertaken in accordance with a maintenance management plan;* *(h) falls within the ambit of activity 21 in this Notice, in which case the activity applies;* *(i) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or*	The proposed upgrade is located within 100m of the estuarine portion of Rietvlei wetland area.

Where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of2014 applies. Activity Number: 27 Activity Description: *The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for -* *(i) the undertaking of a linear activity; or* *(ii) maintenance purposes undertaken in accordance with a maintenance management plan.*	The proposed stormwater treatment system and bypass channel will result in the clearance of an area of 1 ha or more of indigenous vegetation.
Listing Notice 3 of the NEMA EIA Regulations, 2014, (as amended): Activity Number: 12 Activity Description: *The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.* *(i)* ***<u>Western Cape</u>*** *i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004.* *ii. Within critical biodiversity areas identified in bioregional plans.* *iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas;* *iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or* *v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.*	The proposed upgrade will result in the clearance of an area of 300m^2 or more of indigenous vegetation within an endangered ecosystem.

The abovementioned list is hereinafter referred to as "**the listed activities".**

The holder is herein authorised to undertake the following alternatives that includes the listed activities as it relates to the proposed development:

The proposed upgrade entails the upgrade to the existing Bayside Canal stormwater outfall system, the development of a stormwater treatment system and the development of a bypass channel.

The upgrade of the existing Bayside Canal:

The existing Bayside Canal serves as the only stormwater outfall culvert for the catchment area that includes a large portion of Tableview, West Beach, Parklands and Sunningdale. The existing canal is located along Erven 4607, 4616, 4722, 4731, 4773, 12137 and 14467, Tableview. The existing stormwater capacity is insufficient and is compromised by extensive reed growth downstream of the canal outlet. An upgrade to the canal is therefore required in order increase stormwater capacity and to reduce the potential for flooding in the surrounding areas. The upgrade of the existing Bayside Canal will therefore entail the formalisation of the cross-section of the canal located between Blaauwberg Road and the canal outlet. This will include the flattening and lining of the side slopes of the canal to reduce vegetation growth within the canal and assist in general maintenance operations. The reduction of vegetation growth (specifically reeds) would allow water to flow freely into the Rietvlei area.

The development of a stormwater treatment system:

Currently, stormwater from the Bayside Canal flows into the reed beds located in the northern section of Rietvlei. These reed beds treat the stormwater by allowing suspended solids to settle out and by absorbing excess nutrients via root systems. In order to maintain this natural treatment function, while at the same time allowing for easier maintenance and periodic clearing of litter which is trapped within the natural reed bed, it is proposed that a formalised stormwater treatment system utilising reed beds be developed. The stormwater treatment system would consist of the following elements:

- Litter Screening: Initial litter screening would be undertaken within the Bayside Canal using a litter boom to intercept floating litter and debris. The installation of the floating boom would require the widening of a section of the canal in order to reduce the velocity of the stormwater flow. The boom would trap floating debris which is ultimately collected in a screen box installed on the eastern canal bank. A second stage of litter screening is also proposed and would comprise the installation of a second floating boom located within the primary sedimentation ponds.

- Primary and Secondary Sedimentation ponds: The proposed primary and secondary sedimentation ponds would allow any suspended sand, grit and other solids to settle out of the stormwater runoff discharged by the canal. Two primary sedimentation ponds are planned to allow heavier suspended matter to drop out of suspension, while two secondary sedimentation ponds would allow for the removal of the finer suspended matter that has passed through the primary ponds.

- Reed bed ponds: After passing through the sedimentation ponds, stormwater would overflow into a series of reed bed ponds. The reed beds would allow for the uptake of nutrients and physical filtration of pollutants by the reeds.

The development of the bypass channel:

A bypass channel is proposed along the eastern boundary of the R27 in order to divert high volumes of stormwater runoff generated during higher order storms. The bypass channel would include a weir, which would force all runoff from periods of lower rainfall (below the 5-year Return Interval storm event) through the reed bed ponds for treatment prior discharging into the Rietvlei. When the water level reaches the top of the weir, the excess volumes of stormwater would be diverted into the bypass channel and discharge 300m short of the main water body of Rietvlei. During normal flow conditions, the channel would serve as an outlet for the stormwater which has passed through the stormwater treatment system discussed above.

The development of the stormwater treatment system and the bypass channel will be located within the north-western corner of the Rietvlei within the Table Bay Nature Reserve on a portion of Erf 22994, Tableview.

The proposed upgrade will result in the clearance of approximately 9500m^2 of endangered vegetation, will result in the infilling or depositing of material of more than 10m^3 of a wetland and will result in the infilling or depositing of material of more than 5m^3 within 100m of the high-water mark of the sea.

The total development footprint will be approximately 9.5ha in extent.

C. SITE DESCRIPTION AND LOCATION

The authorised listed activities will be undertaken on Erven 4607, 4614, 4722, 4731, 4773, 12137, 14467 and 22994, Tableview.

The SG 21-digit codes for the proposed erven are:

Erf 4607	C01600340000460700000
Erf 4614	C01600340000461400000
Erf 4722	C01600340000472200000
Erf 4731	C01600340000473100000
Erf 4773	C01600340000477300000
Erf 12137	C01600340001213700000
Erf 14467	C01600340001446700000
Erf 22994	C01600340002299400000

Site co-ordinates for the proposed development are:

Coordinates:	Latitude (S):	Longitude (E):
Start of proposed Bayside Canal upgrade (R27 / Blaauwberg Road)	33°49'28.83"S	18°29'14.85"E
End Bayside Canal (outlet of canal at the north-western corner of Rietvlei)	33°49'49.55"S	18°29'10.28"E
Proposed stormwater treatment system	33°49'51.77"S	18°29'10.12"E

Refer to Annexure 1: Locality Plan and Annexure 2: Site Development Plans.

The above is hereinafter referred to as "**the site**".

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Environmental Assessment Practitioner:

SLR Consulting (South Africa) (Pty) Ltd
c/o Mr. Nicholas Arnott
5th Floor, Letterstedt House
Newlands on Main,
Corner of Main and Campground Roads
NEWLANDS
7700

Tel: (021) 461 1118/9
Email: narnott@slrconsulting.com / jblood@slrconsulting.com

E. CONDITIONS OF AUTHORISATION

Scope of authorisation

1. The holder is authorised to undertake the listed activities specified in Section B above in accordance with and restricted to the Preferred Alternative described in the BAR dated July 2020 on the site as described in Section C above.

2. The holder must commence with, and conclude, the listed activities within the stipulated validity period which this Environmental Authorisation is granted for, or this Environmental Authorisation shall lapse and a new application for Environmental Authorisation must be submitted to the competent authority.

   This Environmental Authorisation is granted for–

   (a) A period of five (**5**) years, from the date of issue, during which period the holder must commence with the authorised listed activities; and

   (b) A period of five (**5**) years, from the date the holder commenced with the authorised listed activities, during which period the authorised listed activities for the construction phase, must be concluded.

3. The holder shall be responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.

4. Any changes to, or deviations from the scope of the alternative described in section B above must be accepted or approved, in writing, by the Competent Authority before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the Competent Authority may request information in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.

Written notice to the Competent Authority

5. A minimum of 7 (seven) calendar days' notice, in writing, must be given to the Competent Authority before commencement of development activities.

   5.1. The notice must make clear reference to the site details and EIA Reference number given above.

   5.2. The notice must also include proof of compliance with the following conditions described herein:

   Conditions: 6, 7, 10, 15.1 and 15.2.

Notification and administration of appeal

6. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision–

   6.1. Notify all registered Interested and Affected Parties ("I&APs") of –

   6.1.1. the outcome of the application;
   6.1.2. the reasons for the decision as included in Annexure 3;
   6.1.3. the date of the decision; and
   6.1.4. the date when the decision was issued.

6.2. 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 G below;

6.3. Draw the attention of all registered I&APs to the manner in which they may access the decision;

6.4. Provide the registered I&APs with:

6.4.1. name of the holder (entity) of this Environmental Authorisation,
6.4.2. name of the responsible person for this Environmental Authorisation,
6.4.3. postal address of the holder,
6.4.4. telephonic and fax details of the holder,
6.4.5. e-mail address, if any, of the holder,
6.4.6. the contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the National Appeal Regulations, 2014 (as amended).

7. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the holder notifies the registered I&APs of this decision. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided i.e. the listed activities, including site preparation, must not commence until the appeal is decided.

Management of activity

8. The Environmental Management Programme ("EMPr") (dated March 2020) and submitted as part of the application for Environmental Authorisation is hereby approved, on condition that the following amendment is made and must be implemented.

8.1. A Rehabilitation Plan must be compiled and included in the EMPr prior to the completion of development/construction activities.

8.1.1. A copy of the final Rehabilitation Plan must be provided to the competent authority within 3 months of the completion of development/construction activities for record purposes.

8.2. A Maintenance Management Plan for the maintenance of the Bayside Canal, stormwater treatment system and bypass channel must be compiled and included in the Diep River Maintenance Management Plan.

8.2.1. The Diep River Maintenance Management Plan must be submitted and approved by the competent authority prior to the commencement of maintenance activities.

9. The EMPr must be included in all contract documentation for all phases of implementation.

Monitoring

10. The holder must appoint a suitably experienced environmental control officer ("ECO") before the commencement of any land clearing or development activities to ensure compliance with the provisions of the EMPr, and the conditions contained in this Environmental Authorisation.

11. A copy of the Environmental Authorisation, EMPr, Environmental Audit Reports and compliance monitoring reports must be kept at the site of the authorised activity and must be made available to any authorised person on request.

12. Access to the site referred to in Section C above must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.

Auditing

13. In terms of Regulation 34 of the NEMA EIA Regulations, 2014 (as amended), the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation and the EMPr and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Report must be prepared by an independent person and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014 (as amended).

    13.1. The holder must undertake the first environmental audit within 3 (three) months of the commencement of the listed activities and submit an Environmental Audit Report to the Competent Authority upon the completion of the environmental audit.

    13.2. A second Environmental Audit Report must be submitted to the Competent Authority 1 (one) month after the completion of the development/construction activities.

    13.3. Afterwards, an Environmental Audit Report must be submitted to the Competent Authority every 5 (five) years after the commencement of the operational phase while the environmental authorization remains valid.

    13.4. The holder must, within 7 (seven) calendar days of the submission of an Environmental Audit Report to the Competent Authority, notify all potential and registered I&APs of the submission and make the Environmental Audit Report available on request.

Specific Conditions

14. An integrated waste management approach, which is based on waste minimisation and incorporates reduction, recycling, re-use and disposal, where appropriate, must be employed. Any solid waste must be disposed of at a landfill licensed in terms of the applicable legislation.

15. In accordance with the Botanical Impact Assessment (compiled by Bergwind Botanical Surveys & Tours CC and dated July 2017), the following mitigation measures must be implemented:

    15.1. The remnant dune located in proximity to the bypass channel must be demarcated as a "no-go" area prior to the commencement of development/construction activities for the duration of development phase.

    15.2. The east-west remnant dune located in proximity to the stormwater treatment system must be demarcated as a "no-go" area prior to the commencement of development/construction activities for the duration of development phase.

16. Employment opportunities must be afforded to the local community (as far as possible) during all phases of the proposed development.

F. GENERAL MATTERS

1. Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.

2. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.

3. If the holder does not commence with the listed activities within the period referred to in Condition 2, this Environmental Authorisation shall lapse for those activities, and a new application for Environmental Authorisation must be submitted to the Competent Authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment in this regard must be made to the Competent Authority prior to the expiry date of the Environmental Authorisation.

4. The holder must submit an application for amendment of the Environmental Authorisation to the Competent Authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for Amendment in terms of Part 1 of the EIA Regulations, 2014 (as amended) must be submitted.

   Please note that an amendment is not required if there is a change in the contact details of the holder. In this case, the Competent Authority must only be notified of such changes.

5. The manner and frequency for updating the EMPr is as follows:

   Amendments to the EMPr, must be done in accordance with Regulations 35 to 37 of the NEMA EIA Regulations, 2014 (as amended) or any relevant legislation that may be applicable at the time.

G. APPEALS

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

1. An appellant (if the holder of the decision) must, within 20 (twenty) calendar days from the date the notification of the decisions was sent to the holder by the Competent Authority -

   1.1 Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations, 2014 (as amended) to the Appeal Administrator; and

   1.2 Submit a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.

2. An appellant (if NOT the holder of the decision) must, within 20 (twenty) calendar days from the date the holder of the decision sent notification of the decision to the registered I&APs–

   2.1 Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations, 2014 (as amended) to the Appeal Administrator; and

   2.2 Submit a copy of the appeal to the holder of the decision, any registered I&AP, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.

3. The holder of the decision (if not the appellant), the decision-maker that issued the decision, the registered I&AP and the Organ of State must submit their responding statements, if any, to the appeal authority and the appellant within 20 (twenty) calendar days from the date of receipt of the appeal submission.

4. The appeal form/s must be submitted by means of one of the following methods:

   By post: Attention: 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. M. Venter (Tel: 021 483 3721)
Room 809
8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

5. The 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 or URL http://www.westerncape.gov.za/eadp.

H. DISCLAIMER

The Western Cape Government, the holder, committees or any other public authority or organisation appointed in terms of the conditions of this 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 appreciated.

Yours faithfully

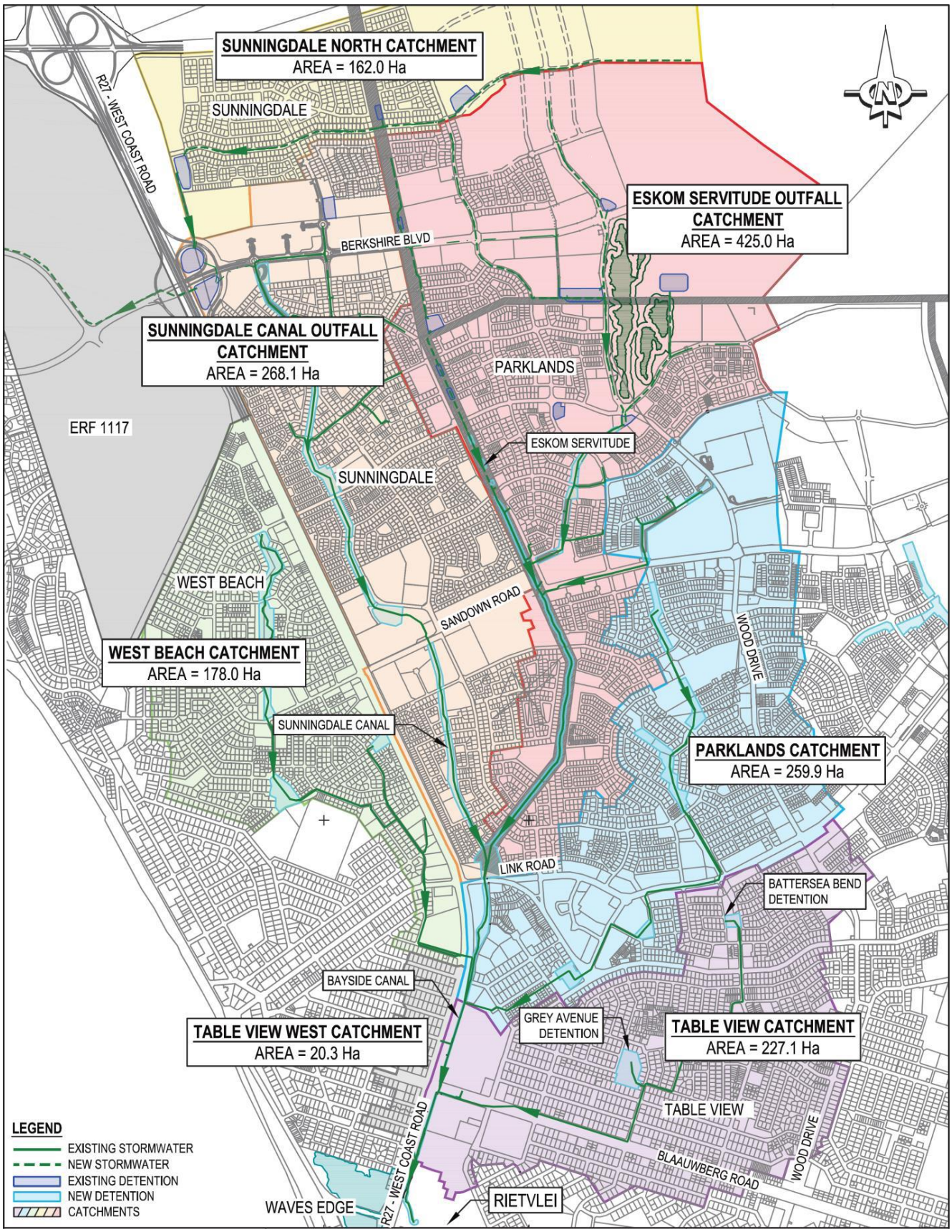
MR. ZAAHIR TOEFY
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)

DATE OF DECISION: 13 NOVEMBER 2020

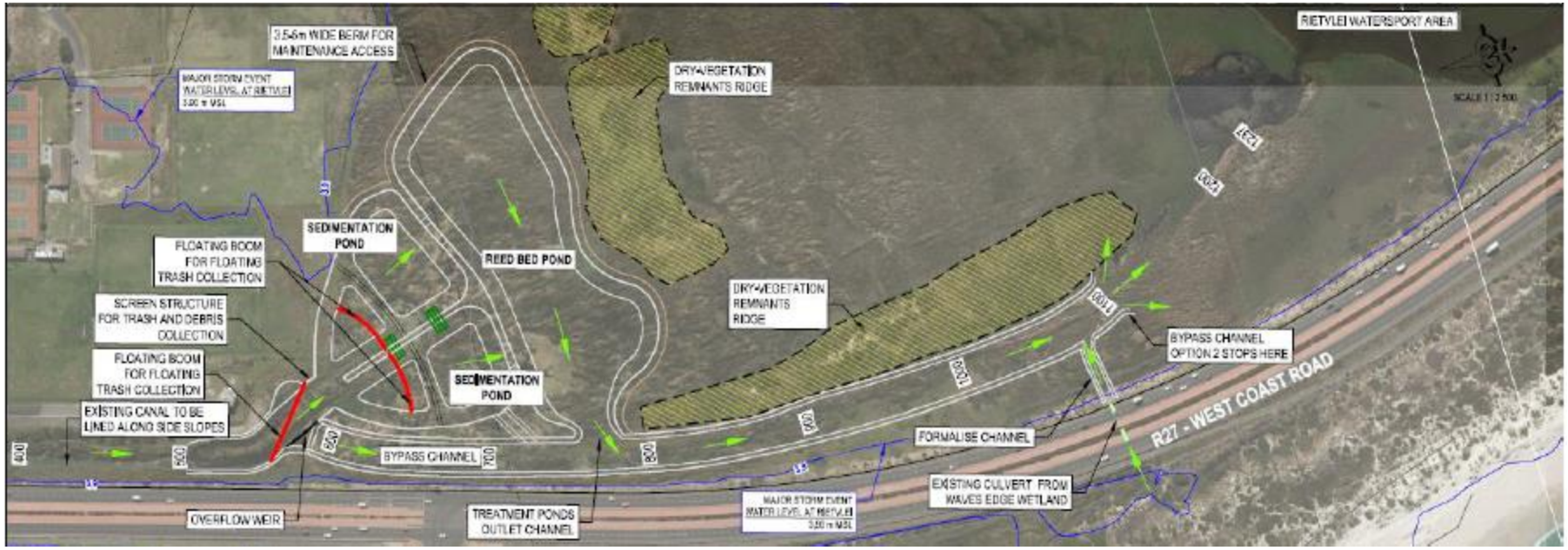
Copies to: (1) Mr. N. Arnott / Mr. J. Blood (SLR Consulting) Email: narnott@slrconsulting.com / jblood@slrconsulting.com
(2) Ms. P. Titmuss (City of Cape Town: ERM) Email: pat.titmuss@capetown.gov.za

ANNEXURE 1: LOCALITY MAP

Locality map of the proposed development indicated in red below.



ANNNEXURE 2: SITE PLAN



ANNEXURE 3: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, inter alia, the following:

a) The information contained in the application form dated 03 March 2020 and received by the competent authority on 04 March 2020, the BAR dated July 2020 and received by the competent authority on 29 July 2020 and the EMPr submitted together with the BAR;

b) Relevant information contained in the Departmental information base, including, the Guidelines on Public Participation, Alternatives and Exemptions (dated March 2013);

c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998);

d) The comments received from I&APs and responses to these, included in the BAR dated July 2020;

e) The balancing of negative and positive impacts and proposed mitigation measures; and

f) No site visits were conducted. The competent authority had sufficient information before it to make an informed decision without conducting a site visit.

All information presented to the competent authority was taken into account in the consideration of the application for environmental authorisation. A summary of the issues which, according to the competent authority, were the most significant reasons for the decision, is set out below.

1. Public Participation

The public participation process ("PPP") included:

The public participation process included:

- Identification of and engagement with I&APs;
- Fixing notice boards at the site and surrounding locations where the listed activities are to be undertaken on 31 August 2017;
- Giving written notice to the owners and occupiers of land adjacent to the site where the listed activities are to be undertaken, the municipality and ward councilor, and the various organs of state having jurisdiction in respect of any aspect of the listed activities on 30 August 2017;
- The placing of a newspaper advertisement in the "*Tygerburger*", "*Tableview*" and "*Tabletalk*" on 30 August 2017;
- Making a pre-application draft BAR available to I&APs for public review from 23 May 2019 to 24 June 2019; and
- Making the draft BAR available to I&APs for public review from 04 March 2020 to 14 July 2020.

All the concerns raised by I&APs were responded to and adequately addressed during the public participation process. The Department is satisfied that the PPP that was followed met the minimum legal requirements and all the comments raised and responses thereto were included in the comments and response report. Specific management and mitigation measures have been considered in this Environmental Authorisation and in the EMPr to adequately address significant concerns raised.

2. Alternatives

Technology alternatives with respect to the proposed stormwater treatment system were identified and assessed. The use of fixed screens (for the trapping of litter), mechanical screen structures (which self-cleans) and litter removal in the primary and secondary ponds were considered. The fixed screens were screened out due to the fact that the maintenance for the removal of the litter would be frequently required, which would place further strain on the limited human resource capacity of the local authority.

The mechanical screen structures were screened out due to the high financial costs associated with this technology. The litter removal in the primary and secondary ponds were therefore preferred and incorporated into the preferred alternative.

Three (3) alternatives and the "no-go" alternative were identified and assessed as follows:

Alternative 1: West Beach Stormwater Diversion

Alternative 1: West Beach Stormwater Diversion entailed diverting stormwater from the West Beach catchment to the Waves Edge wetland (located diagonally opposite Rietvlei, on the corner of Marine Drive and the R27) to reduce the total volume of stormwater runoff entering the Bayside Canal. Three alternative discharge points were considered:

- Discharging into Waves Edge wetland;
- Discharging directly into Rietvlei; and
- Discharging into Bayside Canal.

Alternative 1: West Beach Stormwater Diversion was not deemed to be the preferred alternative since the proposed development would not reduce the volume of runoff entering the Bayside Canal sufficiently to alleviate the current capacity issues.

Alternative 2: Tableview Stormwater Diversion

Alternative 2: Tableview Stormwater Diversion entailed diverting runoff from the Tableview catchment before it enters the Bayside Canal. Four possible routes were considered, all of which would require the construction of a diversion structure on the existing 1500 mm stormwater pipe located in Blaauwberg Road. The diversion structure would intercept flows from Tableview and redirect the flow into a new culvert to discharge runoff at the north-eastern corner of Rietvlei. The four possible routes considered were as follows:

- Pentz Drive Route;
- Donkin Avenue Route;
- Birkenhead Road Route; and
- Pentz Drive Route Extended.

Alternative 2: Tableview Stormwater Diversion was not deemed the preferred alternative for the following reasons:

- The identified route alternatives were shown to have a greater risk of flooding adjacent residential areas during major storm events;
- The physical constraints (existing residential and commercial buildings, as well as existing roads) limit the available working space for construction and the need to relocate existing underground services increase the construction cost of the route alternatives; and
- The implementation of this alternative would not reduce the volume of runoff entering the Bayside Canal sufficiently to alleviate the current capacity issues.

The Preferred Alternative: Upgrade of the Bayside Canal and the Rietvlei Stormwater Ponds (herewith authorised)

The proposed upgrade entails the upgrade to the existing Bayside Canal stormwater outfall system, the development of a stormwater treatment system and the development of a bypass channel.

The upgrade of the existing Bayside Canal:

The existing Bayside Canal serves as the only stormwater outfall culvert for the catchment area that includes a large portion of Tableview, West Beach, Parklands and Sunningdale. The existing canal is located along Erven 4607, 4616, 4722, 4731, 4773, 12137 and14467, Tableview. The existing

stormwater capacity is insufficient and is compromised by extensive reed growth downstream of the canal outlet.

An upgrade to the canal is therefore required in order increase stormwater capacity and to reduce the potential for flooding in the surrounding areas. The upgrade of the existing Bayside Canal will therefore entail the formalisation of the cross-section of the canal located between Blaauwberg Road and the canal outlet. This will include the flattening and lining of the side slopes of the canal to reduce vegetation growth within the canal and assist in general maintenance operations. The reduction of vegetation growth (specifically reeds) would allow water to flow freely into the Rietvlei area.

The development of a stormwater treatment system:

Currently, stormwater from the Bayside Canal flows into the reed beds located in the northern section of Rietvlei. These reed beds treat the stormwater by allowing suspended solids to settle out and by absorbing excess nutrients via root systems. In order to maintain this natural treatment function, while at the same time allowing for easier maintenance and periodic clearing of litter which is trapped within the natural reed bed, it is proposed that a formalised stormwater treatment system utilising reed beds be developed. The stormwater treatment system would consist of the following elements:

- Litter Screening: Initial litter screening would be undertaken within the Bayside Canal using a litter boom to intercept floating litter and debris. The installation of the floating boom would require the widening of a section of the canal in order to reduce the velocity of the stormwater flow. The boom would trap floating debris which is ultimately collected in a screen box installed on the eastern canal bank. A second stage of litter screening is also proposed and would comprise the installation of a second floating boom located within the primary sedimentation ponds.

- Primary and Secondary Sedimentation ponds: The proposed primary and secondary sedimentation ponds would allow any suspended sand, grit and other solids to settle out of the stormwater runoff discharged by the canal. Two primary sedimentation ponds are planned to allow heavier suspended matter to drop out of suspension, while two secondary sedimentation ponds would allow for the removal of the finer suspended matter that has passed through the primary ponds.

- Reed bed ponds: After passing through the sedimentation ponds, stormwater would overflow into a series of reed bed ponds. The reed beds would allow for the uptake of nutrients and physical filtration of pollutants by the reeds.

The development of the bypass channel:

A bypass channel is proposed along the eastern boundary of the R27 in order to divert high volumes of stormwater runoff generated during higher order storms. The bypass channel would include a weir, which would force all runoff from periods of lower rainfall (below the 5-year Return Interval storm event) through the reed bed ponds for treatment prior discharging into the Rietvlei. When the water level reaches the top of the weir, the excess volumes of stormwater would be diverted into the bypass channel and discharge 300m short of the main water body of Rietvlei. During normal flow conditions, the channel would serve as an outlet for the stormwater which has passed through the stormwater treatment system discussed above.

The development of the stormwater treatment system and the bypass channel will be located within the north-western corner of the Rietvlei within the Table Bay Nature Reserve on a portion of Erf 22994, Tableview.

The proposed upgrade will result in the clearance of approximately 9500m^2 of endangered vegetation, will result in the infilling or depositing of material of more than 10m^3 of a wetland and

will result in the infilling or depositing of material of more than 5m^3 within 100m of the high-water mark of the sea.

The total development footprint will be approximately 9.5ha in extent.

The Preferred Alternative: Upgrade of the Bayside Canal and the Rietvlei Stormwater Ponds was deemed the preferred since the reed beds will be organised into a manageable treatment system, passageways would be formed along the earth berms for stormwater runoff from high order floods to escape. Stormwater flows from normal rain events (more than 80% of all rain events) would pass through the reed beds for treatment before being discharged to the bypass channel that will convey it to the Rietvlei water sport area. The berms would also allow easier access for operation and maintenance of the reed bed system. The Preferred Alternative would alleviate the current capacity constraints on the existing Bayside Canal and will prevent future flooding events in the area.

"No-Go" Alternative

The No-Go alternative is the option of not proceeding with the proposed project, which would result in the status quo remaining. The implication is that the Bayside Canal would continue to experience capacity problems due to backwater in the lower portion of the canal and the risk of properties upstream of the canal outfall point flooding would remain. Furthermore, litter and solid waste would continue to be discharged and accumulate in the Rietvlei wetland. Given that the Preferred Alternative will not result in unacceptable environmental impacts, the "No-Go" alternative was not warranted.

3. Impact Assessment and Mitigation measures

3.1. Activity Need and Desirability

The 2014 Western Cape Provincial Spatial Development Framework (PSDF) identified infrastructure as essential for development, but noted that a challenge to development is that infrastructure is generally inadequate in the Western Cape. As such, service delivery and the improvement of the quality of life of all inhabitants in the Western Cape Province is a high priority. As the proposed project aims to alleviate the capacity problems currently experienced within the canal to avoid the possible flooding of upstream properties, it is considered to be aligned with the priority of providing service delivery.

In accordance with policy statement 26 of PSDF, the impact of urban development on river systems, wetlands, aquifers, aquifer recharge areas and discharge areas must be reduced. In terms of the Cape Town Municipal Spatial Development Framework (MSDF) 2018, the optimisation of existing infrastructure and prioritising planning and implementation of infrastructure maintenance, renewal and expansion is considered to be fundamental to the City achieving its spatial vision. The City of Cape Town IDP (2012-2017) includes two core objectives relevant to the proposed project, namely to reduce the impact of flooding on community livelihoods and regional economies and to safeguard human health, protect natural aquatic environments and improve and maintain recreational water quality. Whilst the project footprint would have a physical impact on the Rietvlei, the development of the proposed stormwater treatment system would provide for the removal of solid waste and allow for the treatment of stormwater runoff during periods of normal flow prior to discharge into Rietvlei. The proposed upgrade is therefore considered to be aligned with the environmental management priorities highlighted above.

3.2. Freshwater Impacts

A Freshwater Screening Assessment (compiled by Bluescience and dated May 2018), was undertaken to assess the potential freshwater impacts of the proposed development. The proposed upgrade lies within the lower Diep River Catchment, at the Rietvlei and immediately north of the wetland area. The Diep River, and particularly its lower reaches and within Rietvlei,

has been significantly modified over the past few centuries due to urbanisation. The Rietvlei comprises a wet and open water habitat, a marginal habitat that is dominated by bulrushes and the surrounding transitional zone that is intermittently inundated during the wetter winter months of the year. The Bayside Canal system discharges into the north-western portion of the Rietvlei.

The specialist indicated that the Rietvlei wetland area is in a moderately to largely modified state. However, the Rietvlei is considered to be of high ecological importance and sensitivity as it provides a number of valuable goods and services. In terms of mapping, the specialist indicated that the proposed site is mapped as a National Freshwater Ecosystem Priority Area, a Critical Biodiversity Area and is a Protected Area in terms of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004). All alternatives were assessed by the specialist. The specialist indicated that the location of the proposed stormwater treatment system (as described in the Preferred Alternative) is considered favourable as it is dominated by a mono-culture of bulrushes (within the inundated area) and invaded by Kikuyu grass (along the terrestrial boundaries). The proposed upgrade of the Bayside Canal is considered to be of a low significance from a freshwater perspective.

The location of the proposed stormwater treatment system and proposed shaping indicates that it is anticipated to be well integrated with the surrounding landscape and will not result in any significant loss of wetland area. By placing the proposed stormwater treatment system in the northern most extent of the Rietvlei, the potential disturbance of the wetland habitat will be reduced and will serve as a buffer area between the developed area to the north and the Rietvlei. This buffer will further serve as protection for the more important wetland areas of Rietvlei from habitat disturbances and the invasion of alien plants such as kikuyu grass. The specialist indicated that the proposed litter removal and sedimentation ponds would require regular maintenance and access to the ponds should be provided.

The proposed bypass channel along the eastern boundary of the R27 is proposed to divert higher flows during storm events around the stormwater treatment system to discharge into the open water area of Rietvlei. The channel will be constructed in the disturbed area alongside the road and where the existing earthen channel has been excavated. The significance of the disturbance to aquatic habitat as a result of the channel construction would thus be low. The discharge would only take place during higher flows when there would be significant dilution of the stormwater quality. The potential impacts to the freshwater features, with mitigation, would be of a low significance. Recommendations have been provided by the specialist and have been included in the EMPr. The Department of Water and Sanitation (in their correspondence dated 31 July 2019) indicated that a Water Use Licence is required in terms of the National Water Act, 1998 (Act No. 36 of 1998). The requirements of the National Water Act, 1998 will be met by the applicant.

3.3. Botanical Impact Assessment

A Botanical Impact Assessment (compiled by Bergwind Botanical Surveys & Tours CC and dated July 2017) was undertaken to assess the potential botanical impacts of the proposed development. Two terrestrial vegetation types would have originally been found in the study area namely Cape Flats Dune Strandveld and Cape Flats Sand Fynbos. Cape Flats Dune Strandveld, typically a thicket formation, occurs on alkaline sand that is not leached whereas Cape Flats Sand Fynbos occurs on leached acid sand. The wetland vegetation at Rietvlei is considered to be azonal: Cape Lowland Freshwater Wetlands.

An existing canal, the Bayside Canal, runs on the east side of the R27 from Blaauwberg Road to Rietvlei. The vegetation along the canal is all secondary and no natural vegetation exists along the northern part of the canal. The proposed treatment system would be located within the Table Bay Nature Reserve at Rietvlei Nature Area. Permission from the management authority of the Table Bay Nature Reserve has been granted on 02 August 2019 to allow for the proposed development/construction activities. The only Cape Flats Dune Strandveld vegetation remaining in the target area is that found on the remnant dune within Rietvlei

Nature Area (part of the Table Bay Nature Reserve protected area). No natural vegetation persists in or alongside the Bayside Canal. From a botanical viewpoint, the environs are extremely degraded. Any activity, be it construction or clearing of the canal would have Very Low Negative impact on any natural plant community.

The specialist indicated that the potential freshwater impacts (as a result of the proposed stormwater treatment system) is deemed to be of medium negative significance on the remnant east-west trending dune. The potential freshwater impacts would be of low negative significance should the remnant dune be avoided. The option of avoiding the remnant dune was therefore preferred from a conservation viewpoint with respect to Rietvlei being a nature area. The potential freshwater impacts (as a result of the proposed bypass channel) is deemed to be of medium negative significance prior to the implementation of mitigation measures. The specialist therefore recommended that the dune area be demarcated as a "no-go" area during the development/construction activities to reduce the potential freshwater impacts to be of low negative significance.

The specialist concluded that the proposed upgrades to the Bayside Canal and associated infrastructure is anticipated to have a very low negative to negligible significance and would result in positive impacts to the Rietvlei wetlands. The project is thus supported from a botanical perspective. The recommendations of the botanical specialist have been included in the EMPr. CapeNature indicated (in their comment 03 July 2019) that they do not object to the proposed development and agree with the findings of the botanical specialist.

3.4. Noise, dust and visual Impacts

Construction related noise, dust and visual impacts are anticipated during the construction phase. Mitigation measures have been included in the EMPr.

3.5. Heritage Impacts

A Notice of Intent to Develop was submitted to Heritage Western Cape. Heritage Western Cape indicated (in their correspondence dated 20 June 2017) that there is no reason to believe that the proposed upgrade of the Bayside Canal will impact on heritage resources. No further action under Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) is required.

3.6. The development will result in both negative and positive impacts.

Negative Impacts include:

- Loss of critically endangered vegetation;
- Modification of flow and water quality being discharged of into Rietvlei Wetland; and
- Disturbance and modification of aquatic habitat.

Positive impacts include:

- An improvement of the quality of the stormwater runoff being discharged into Rietvlei;
- A reduction in the risk of flooding of residential properties upstream of the Bayside Canal;
- The improved capacity of the Bayside Canal for the movement of stormwater during large rainfall events;
- An improvement in the stormwater management system within the catchment area; and
- Some employment opportunities.

4. National Environmental Management Act Principles

The National Environmental Management Principles (set out in section 2 of the NEMA, which apply to the actions of all organs of state, serve as guidelines by reference to which any organ of state must exercise any function when taking any decision, and which must guide the interpretation,

administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures; and
- the selection of the best practicable environmental option.

5. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMPr, the Competent Authority is satisfied that the proposed listed activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

You are reminded of your general duty of care towards the environment in terms of Section 28(1) of the NEMA which states: "*Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment.*"

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