

 REFERENCE:
 16/3/3/1/A6/7/2046/20

 NEAS REFERENCE:
 WCP/EIA/0000811/2020

 ENQUIRIES:
 RONDINE ISAACS

 DATE OF ISSUE:
 20/05/2021

ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION 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): PROPOSED DEVELOPMENT OF RESIDENTIAL AND RECREATIONAL FACILITIES ON ERVEN 242 AND 212, BISHOPSCOURT (THE PROTEA VILLAGE COMMUNITY LAND CLAIM: PHASE 1).

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 NEMA and the EIA Regulations, 2014 (as amended), the competent authority herewith grants Environmental Authorisation to the applicant to undertake the list of activities specified in Section B below with respect to the preferred alternative as included in the Basic Assessment Report ("BAR") and cover letter dated 29 January 2021.

The granting of this Environmental Authorisation (hereinafter referred to as the "Environmental Authorisation") is subject to compliance with the conditions set out in Section E below.

A. DETAILS OF THE HOLDER OF THIS ENVIRONMENTAL AUTHORISATION

Protea Village Development Company (Pty) Ltd. c/o Mr. Cedric Theodore van Dieman 367 2nd Avenue LOTUS RIVER 7941

Cell.: 079 757 8593 E-mail: <u>cedric.vdieman98@gmail.com</u>

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

B. LIST OF ACTIVITIES AUTHORISED

Listed Activity	Activity/Project Description	
Listing Notice 1 of the EIA Regulations, 2014 (as amended):		
Activity 19: "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:	The development proposal entails the removing or moving, dredging, excavation, infilling or depositing of material of more than 10m ³ from a watercourse.	
 metres from a watercourse; but excluding where such infilling, depositing, dredging, excavation, removal or 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 which 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". 	excavation, infilling or depositing of material of more than 10m ³ from a	

Listed Activity	Activity/Project Description	
Listing Notice 3 of the EIA Regulations, 2014 (as amended):		
 Activity 12: "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>i. Western Cape</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; Within critical biodiversity areas identified in bioregional plans; Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever 	More than 300m ² of vegetation will be cleared. The indigenous vegetation to be cleared largely falls within the wetland areas (excluding the defunct wetlands). The total extent of indigenous vegetation to be cleared is approximately 5457.16m ² . Approximately 37 indigenous trees, of approximately 31.2m ² , will also be removed. One Protected Tree (an Outeniqua Yellowwood) will be removed which requires a permit.	
distance is the greater, excluding where such removal will occur behind the		

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	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	
۷.		
	conservation purposes in an Environmental	
	Management Framework adopted in the	
	prescribed manner, or a Spatial	
	Development Framework adopted by the	
	MEC or Minister".	

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

The holder is herein authorised to undertake the following related to the listed activities:

The proposed project entails the development of residential and recreational facilities on Erven 242 and 212, Bishopscourt (the Protea Village Community Land Claim: Phase 1). The following will be established:

- Green public open space areas;
- A residential area for the 86 families of the Protea Village Community and associated services infrastructure; and
- A combination of freehold and leasehold residential opportunities and associated services infrastructure.

Erf 242:

Erf 242 will comprise of up to 86 plots and homes for the returning Protea Village Community. It will also have and internal road network and pocket parks, both of which will be managed by the City of Cape Town from an operational perspective.

Erf 212:

Erf 212 will include residential opportunities for private sale, and makes provision for a combination of freehold and leasehold sale. For Phase 1, up to five residential stands (*i.e.*, serviced plots) will be developed for private sale and approximately 50 (fifty) residential units will be developed for leasehold sale.

Erf 212 will include approximately 42 100m² of public open space, including the Liesbeek River and the two associated converging streams, as well as a network of pedestrian footpaths/boardwalks and/or bridges. The Recreation and Parks Department of the City of Cape Town will maintain the open space areas from the top of the embankment.

The proposed development will connect to existing municipal infrastructure in terms of water supply, transport, electricity supply, sewage disposal, solid waste removal. There is an existing water main in Winchester Avenue which will provide a suitable connection point and the City of Cape Town has confirmed that there is sufficient capacity.

There is also an existing 160mm diameter sewer main along Winchester Avenue which the City of Cape Town has confirmed capacity for. Sufficient electrical capacity also exists within the system and electricity will be provided by cutting and extending the existing Rhodes Drive 11kV cable with new 11kV cables along Kirstenbosch Drive, which will feed a new miniature sub-station to be installed at the entrance to Erf 212. Low voltage underground cable feeders will supply the two individual underground reticulation networks for both erven.

Storm water management will comprise of a combination of storm water components including channels, pipes, two enhanced dry swales and two dry attenuation ponds. The Roads and Storm Water Branch of the City of Cape Town has committed to the maintenance of Kirstenbosch Drive and the roads and storm water infrastructure on Erf 242.

The residential areas will be accessed by a network of internal access roads. Access to the proposed Protea Village Community homes on Erf 242, as well as to the proposed private freehold/leasehold estate on Erf 212 will be gained from a shared point off Kirstenbosch Drive and will also provide the primary access to the proposed public open space Area on Erf 212. Approximately 16 parking bays will be developed for public use.

The proposed development also includes two access points off Winchester Road; one for each of the pockets of the proposed private freehold/leasehold estate on Erf 212. However, only the access to the northern freehold stands is included as part of Phase 1. Kirstenbosch Drive will also be furnished with an approximately 3m-wide sidewalk and cycle path along the southern side, including two bus embayments nearby the entrances to the development on Erven 242 and 212.

Some of the wetlands will be filled in and/or reshaped for the proposed development to be realised. The listed activities are relative to both movement of material and development/construction activities within watercourses, as well as the clearance of indigenous vegetation which occur within the following watercourses on site:

- Window Stream;
- Nursery Stream;
- Liesbeek River;
- Wetland 10;
- Wetland 11 (and associated seep);
- Wetland 9;
- Wetland 6;
- Wetland 7;
- Wetland 8; and
- Wetland 1 (only the eastern-most portion of Wetland 1 (just beyond/downstream of Pond 3) will be filled in for the development of homes (specifically the "row housing" and associated infrastructure component on Erf 212), as well as some reshaping and works for the establishment of the proposed parking lot for the public open space and for the storm water attenuation ponds and associated reshaped wetland area).

Clearing of indigenous vegetation throughout Erven 242 and 212 will also be undertaken. The total extent of indigenous vegetation to be cleared is approximately 5457.16m².

Phase 2 does not form part of this environmental authorisation.

C. LOCATION AND SITE DESCRIPTION

The listed activities will be undertaken on Erven 212 and 242, Bishopscourt.

Both erven are accessed off Kirstenbosch Drive, just east of Kirstenbosch Botanical Gardens. The two erven are separated by Kirstenbosch Drive and surrounded on all other sides by residential areas, with the western boundary of Erf 212 being Winchester Avenue and that of Erf 242 being a largely undeveloped but disturbed erf (Erf 178088).

The SG 21-digit codes are:

Property number	SG 21-digit code
Erf 212	C01600040000021200000
Erf 242	C01600040000024200000

Co-ordinates:

<u>Erf 212</u>: Latitude: 33° 59' 15.70" S Longitude: 18° 26' 20.66" E

<u>Erf 242</u>: Latitude: 33° 59' 09.57" S Longitude: 18° 26' 20.64" E

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

hereinafter referred to as "the site".

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

Chand Environmental Consultants cc c/o Ms. Marielle Penwarden P.O. Box 238 **PLUMSTEAD** 7801

Tel.: (021) 762 3050 Fax: (086) 665 7430 E-mail: <u>marielle@chand.co.za</u>

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 and cover letter dated 29 January 2021 on the site as described in Section C above.
- 2. Authorisation of the activities is subject to compliance with the conditions set out in this Environmental Authorisation. The holder must ensure 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.
- 3. 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 ten (10) years, from the date the holder commenced with an authorised listed activity, during which period the authorised listed activities for the construction phase, must be concluded.
- 4. The activities that have been authorised may only be carried out at the site described in Section C above in terms of the approved EMPr.
- 5. Any changes to, or deviations from the scope of the description set out in Section B and Condition 2 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 such information 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.

Notification of authorisation and right to appeal

- 6. The holder of the authorisation 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;
 - 6.1.3 the date of the decision; and
 - 6.1.4 the date of issue of the decision;
 - 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);
 - 6.3 draw the attention of all registered I&APs to the manner in which they may access the decision; and

- 6.4 provide the registered I&APs with:
 - 6.4.1 the 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;
 - 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).

Commencement

- 7. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the applicant notified the registered I&APs of this decision.
- 8. In the event that an appeal is lodged with the Appeal Administrator, the effect of this Environmental Authorisation is suspended until such time as the appeal is decided. In the instance where an appeal is lodged the holder may not commence with the activity, including site preparation, until such time as the appeal has been finalised and the holder is authorised to do so.

Written notice to the competent authority

- 9. A minimum of 7 (seven) calendar days' notice, in writing, must be given to the competent authority before commencement of construction activities. Commencement for the purpose of this condition includes site preparation.
 - 9.1 The notice must make clear reference to the site details and EIA Reference number given above.
 - 9.2 The notice must also include proof of compliance with the following conditions described herein: Conditions: 6, 7, 14, 21 and 23.3.

Management of activity

- 10. The draft Environmental Management Programme ("EMPr") dated January 2021 (as compiled by Chand Environmental Consultants) and submitted as part of the application for Environmental Authorisation is hereby approved, and must be implemented.
- 11. An application for amendment to the EMPr must be submitted to the competent authority in terms of Chapter 5 of the EIA Regulations, 2014 (as amended) if any amendments are to be made to the outcomes of the EMPr, and these may only be implemented once the amended EMPr has been authorised by the competent authority.
- 12. The EMPr must be included in all contract documentation for all phases of implementation.
- 13. A copy of the Environmental Authorisation and the EMPr must be kept at the site where the listed activities will be undertaken. Access to the site referred to in Section C above must be granted and, the Environmental Authorisation and EMPr 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. The Environmental Authorisation and EMPr must also be made available for inspection by any employee or agent of the applicant who works or undertakes work at the site.

Monitoring

14. The holder must appoint a suitably experienced Environment Control Officer ("ECO"), for the duration of the construction phase to ensure compliance with the provisions of the EMPr and the conditions contained in this Environmental Authorisation.

The ECO must-

- 14.1 be appointed prior to commencement of any construction activities commencing;
- 14.2 ensure compliance with the EMPr and the conditions contained herein;
- 14.3 keep record of all activities on site; problems identified; transgressions noted, and a task schedule of tasks undertaken by the ECO;
- 14.4 remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed;
- 14.5 provide the competent authority with copies of the ECO reports within 30 days of the project being finalized; and
- 14.6 conduct monthly site inspections during the construction phase.

Environmental audit reports

- 15. The holder must, for the period during which the Environmental Authorisation and EMPr remain valid -
 - 15.1 ensure that the compliance with the conditions of the Environmental Authorisation and the EMPr is audited;
 - 15.2 submit an environmental audit report three months after commencement of the construction phase to the relevant competent authority;
 - 15.3 submit an environmental audit report one (1) month after completion of construction activities; and
 - 15.4 submit an environmental audit report every five (5) years while the Environmental Authorisation remains valid.
- 16. The environmental audit reports must be prepared by an independent person and must address the objectives and contain all the information set out in Appendix 7 of the EIA Regulations, 2014 (as amended).

In addition to the above, the environmental audit report, must -

16.1 provide verifiable findings, in a structured and systematic manner, on-

- (a) the level of compliance with the conditions of the Environmental Authorisation and the EMPr and whether this is sufficient or not; and
- (b) the extent to which the avoidance, management and mitigation measures provided for in the EMPr achieve the objectives and outcomes of the EMPr and highlight whether this is sufficient or not;
- 16.2 identify and assess any new impacts and risks as a result of undertaking the activity;
- 16.3 evaluate the effectiveness of the EMPr;
- 16.4 identify shortcomings in the EMPr;

- 16.5 identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr;
- 16.6 indicate the date on which the construction work was commenced with and completed or in the case where the development is incomplete, the progress of the development and rehabilitation;
- 16.7 include a photographic record of the site applicable to the audit; and
- 16.8 be informed by the ECO reports.
- 17. The holder must, within 7 days of the submission of the environmental audit report to the competent authority, notify all potential and registered I&APs of the submission and make the report available to anyone on request and, where the holder has such a facility, be placed on a publicly accessible website.

Specific conditions

- 18. Surface or ground water must not be polluted due to any actions on the site. The applicable requirements with respect to relevant legislation pertaining to water must be met.
- 19. 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 waste disposal facility licensed in terms of the applicable legislation.
- 20. Should any heritage remains be exposed during excavations or any actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape (in accordance with the applicable legislation). Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape. Heritage remains include archaeological remains (including fossil bones and fossil shells); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features; rock art and rock engravings; shipwrecks; and graves or unmarked human burials.

A qualified archaeologist must be contracted where necessary (at the expense of the holder and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.

- 21. The following recommendations included in Heritage Western Cape's final comment dated 18 November 2020, must be implemented:
 - 21.1 An archaeological monitoring plan must be compiled and be agreed to by the appointed archaeologist, Heritage Western Cape, the holder and the construction contractor(s). The details of the monitoring plan must be agreed with by Heritage Western Cape prior to any work commencing on site. A copy of the monitoring plan must be submitted to the competent authority for information purposes.
 - 21.2 The Landscaping Plan, which illustrates *inter alia* the open public space system, tree retention and planting, integration of archaeological remains and related historic interpretation, public open access design, security systems, perimeter treatment and boundary conditions relating to the stone cottages, Kirstenbosch Drive and the riverine public open space, must be submitted to Heritage Western Cape for comment prior to the submission of

any building plans to the City of cape Town. A copy of the Landscaping Plan as approved by the City of Cape Town, must be submitted to the competent authority for information purposes.

- 22. The holder of the Environmental Authorisation must, at all times, ensure that the activities comply with the Noise Regulations in terms of the relevant legislation.
- 23. All the recommendations provided in the Freshwater Assessment Report dated December 2019 and compiled by Freshwater Consulting cc, as included in the EMPr, must be implemented. However, the following must also be implemented:
 - 23.1 No well point or borehole abstraction targeting the primary (surface) aquifer may take place from either Erf 212 or Erf 242, without a signed letter from a professional, independent geohydrologist with knowledge of the area, stating that such abstraction will not affect spring water supply.
 - 23.2 Abstraction from surface water features, including the rivers and the spring/seep on the site, is not allowed.
 - 23.3 Since the City of Cape Town will own and manage the Public Open Space area, an agreement of these responsibilities, agreement or formal acknowledgement of these responsibilities must be provided. The agreement must clarify responsibility for management of waste, storm water, service infrastructure and the open space areas on both Erf 212 and Erf 242, including the rivers and wetlands. A copy of the agreement letter must be submitted to the competent authority prior to the commencement of construction activities.
- 24. Water saving mechanisms and/or water recycling systems must be installed in order to reduce water consumption that include *inter alia*, the following:
 - 24.1 Dual-flush toilet systems.
 - 24.2 All taps must be fitted with water saving devices, that is, tap aerators, flow restrictors and low flow shower heads.
 - 24.3 Water-wise landscaping must be done.
- 25. The development must incorporate energy/electricity saving measures, which include inter alia, the following:
 - 25.1 Use of energy efficient lamps and light fittings. Low energy bulbs must be installed, and replacement bulbs must also be of the low energy consumption type.
 - 25.2 Street lighting must be kept to a minimum and down lighting must be used to minimize light impacts. Streetlights must be switched off during the day.
 - 25.3 All geysers must be covered with geyser "blankets".
 - 25.4 The installation of solar water heaters and solar panels must be considered for all buildings.
- 26. The requirements of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), must be adhered to.

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. If the holder does not commence with the listed activities within the period referred to in Condition 3, this Environmental Authorisation shall lapse for the 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 for amendment in this regard must be made to the competent authority prior to the expiry date of the Environmental Authorisation.
- 3. 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.

- 4. The manner and frequency for updating the EMPr is as follows: Amendments to the EMPr, other than those mentioned above, must be done in accordance with Regulations 35 to 37 of the EIA Regulations,2014 (as amended) or any relevant legislation that may be applicable at the time.
- 5. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.

F. 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 notification of the decision 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 and the responding statement must be submitted to the address listed below:

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 8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001
- **Note:** For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to <u>DEADP.Appeals@westerncape.gov.za</u>.
- 5. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from Appeal Authority at: Tel. (021) 483 3721, E-mail <u>DEADP.Appeals@westerncape.gov.za</u> or URL <u>http://www.westerncape.gov.za/eadp</u>.

G. DISCLAIMER

The Western Cape Government, the Local Authority, 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 noncompliance 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: 20/05/2021

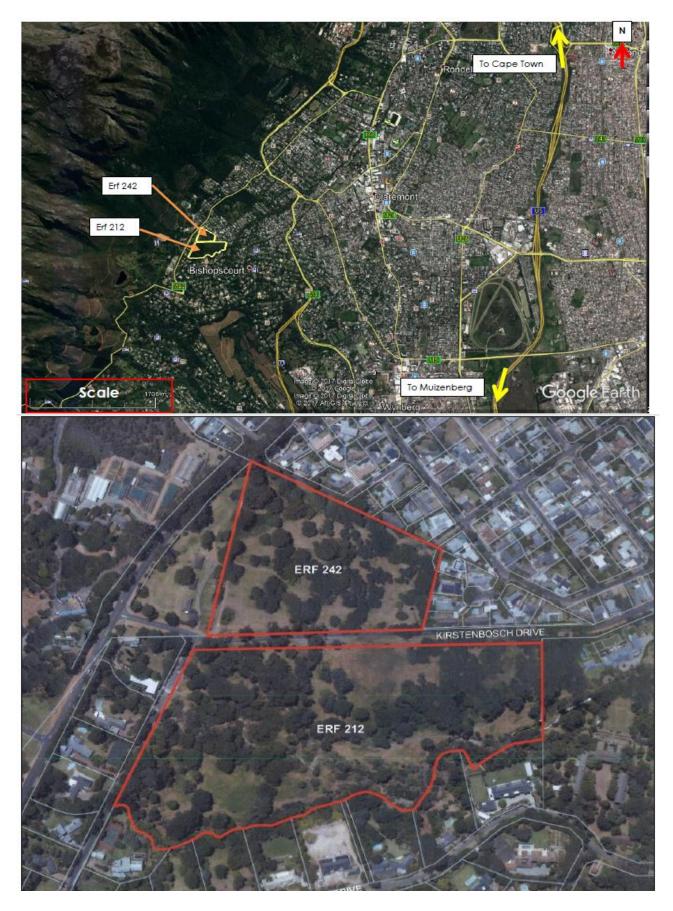
CC: (1) Ms. Marielle Penwarden (Chand Environmental Consultants cc)
(2) Mr. Ossie Gonsalves (City of Cape Town)
(3) Mr. D. Daniels (DWS)

E-mail: <u>marielle@chand.co.za</u> E-mail: <u>Ossie.Gonsalves@capetown.gov.za</u> E-mail: <u>DanielsD@dws.gov.za</u>

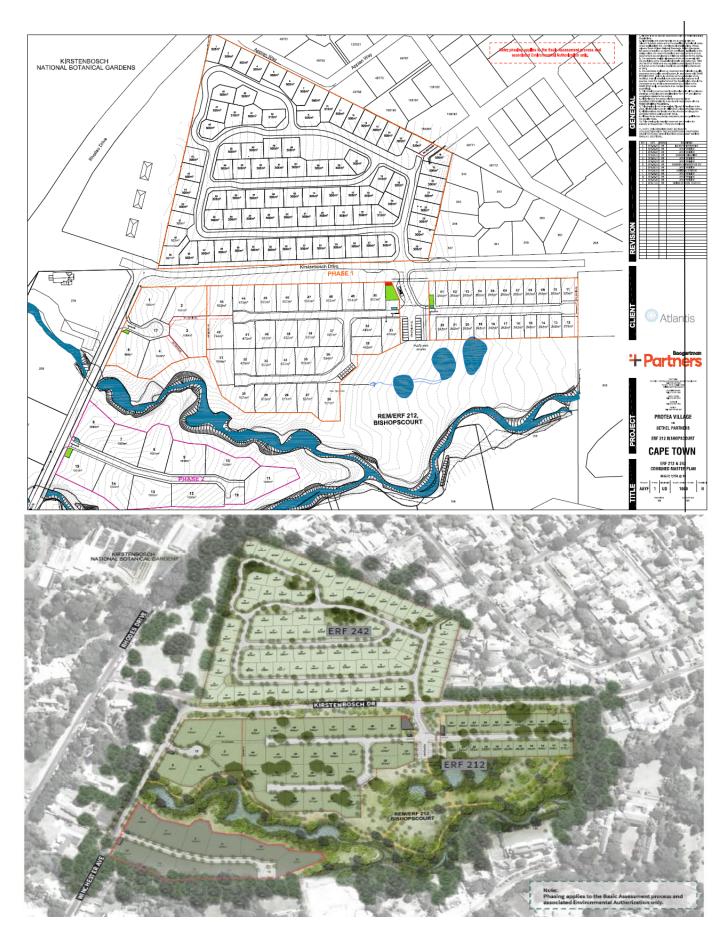
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EIA REFERENCE NUMBER: 16/3/3/1/A6/7/2046/20 NEAS EIA REFERENCE NUMBER: WCP/EIA/0000811/2020

ANNEXURE 1: LOCALITY PLAN



ANNEXURE 2: SITE PLAN



Watercourses affected by the proposed development on Erven 242 and 212.



Implementation of recommended buffers along the river for Phase 1 (Phase 2 does not form part of this Environmental Authorisation).



ANNEXURE 3: REASONS FOR THE DECISION

In reaching its decision, the competent authority, inter alia, considered the following:

- a) The information contained in the Application Form received by the competent authority on 13 October 2020; the BAR and cover letter dated and received by the competent via electronic correspondence on 29 January 2021; the EMPr submitted together with the BAR; the correspondence received from Advocate Peter Kantor via electronic correspondence on 24 February 2021; the correspondence received from Cullinan and Associates via electronic correspondence on 30 March 2021; and the correspondence received from Advocate Peter Kantor via electronic correspondence on 7 April 2021, respectively;
- b) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the NEMA;
- c) The comments received from I&APs and the responses provided thereon, as included in the BAR and cover letter dated 29 January 2021;
- d) The pre-application meeting held on 25 July 2018

Attended by Mr. Eldon van Boom and Ms. Rondine Isaacs of the Department of Environmental Affairs and Development Planning ("DEA&DP") and Ms. Marielle Penwarden of Chand Environmental Consultants.

e) 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.

The specialist studies conducted during the Basic Assessment process meet the requirements of Appendix 6 of the EIA Regulations, 2014 (as amended).

The mitigation hierarchy has been applied to avoid impacts, but where impacts cannot altogether be avoided, appropriate measures have been identified to minimise and remedy such impacts, whilst maximising positive outcomes. A balance is achieved by reaching a compromise between maximum development and the retention of the natural environment, while still supporting the sustainability of the freshwater ecosystem. A desirable development from both a heritage and visual aspect is created, including a continued place of recreation for the greater community.

The impacts, with mitigation, are thus anticipated to keep the sustainability of the freshwater system intact. This is not an unacceptable result or trade-off for the high positive impact that the proposed development will have from a social perspective (particularly for the Protea Village Community).

The mitigation hierarchy has been implemented as follows:

Mitigation hierarchy	Aspect of the proposed project
Avoid	 Parts of the freshwater ecosystem are avoided (e.g. the river and some of the seep, the spring and ponds) and buffers are included into the preferred layout alternative. Potential issues pertaining to the high water table in some parts of the site, as well as groundwater flow, will be avoided through the

	design of particularly the storm water system.
Minimise/mitigate	 Construction work near sensitive areas will be limited to times of the year where these systems are least vulnerable. The EMPr contains numerous mitigation measures to reduce the adverse impacts of the proposed development either to yield positive impacts (in the case of visual, heritage, and some transport aspects) or to minimise the adverse impacts to acceptable levels (as is the case with freshwater ecology and some transport aspects). The EMPr contains specifications for the planning/detail design phase, construction phase, and operational phase in order to cover the full development cycle applicable to the proposed development.
Restore	 Rehabilitation works are proposed for the riverbanks which are tied to development of certain parcels. The removal of invasive alien trees which adversely affect the freshwater system will occur through the specifications in the EMPr. Landscaping will include indigenous plants which will contribute to the natural ecosystem on site. The landscape will mature over time to provide a tree canopy over the site as well as more habitat for local fauna.
Offset/compensate	 Landscaping will include planting approximately 357 trees to compensate for the trees which must be felled to provide space for the proposed development. The extent of both Ponds 2 and 3 will be expanded on their southern sides, through the creation of seasonally saturated wetland marsh. There are aspects linked to compensation which are incorporated into the EMPr, namely, the strict compliance monitoring and auditing specifications for the construction as well as the operational phases of the proposed development. There is also a more frequent auditing schedule in the EMPr where work will take place near the sensitive freshwater areas and during periods of tree felling. Fines are recommended for transgressions and the audit reports will be submitted to both the competent authority and the City of Cape Town for their records.

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 comprised of the following:

Pre-application phase:

- Formal meetings were held with the Bishopscourt and Fernwood Ratepayers' Associations on 27 November 2017, 06 December 2017 and 08 October 2018, respectively;
- A Focus Group Meeting was held on 08 October 2018 with registered Heritage Conservation Bodies within the metropole, including members of the Fernwood Residents' Association;

- Advertisement of the proposed development and the Basic Assessment process occurred from 26 October 2018 to 30 November 2018 as follows:
 - Distribution of a Background Information Document ("BID") for public comment;
 - Site notices were placed on 25 October 2018;
 - A mail-out was done on 25 October 2018;
 - Knock-and-drop to adjacent landowners were carried out on 24 and 25 October 2018;
 - Advertisements were placed in the "Cape Times" and "Cape Argus" newspapers on 25 October 2018, respectively;
- An Open House event was held on 21 November 2018;
- The municipal ward councillor was notified on 24 October 2018;
- The municipality was informed on 24 October 2018;
- Written notice to organs of state were done as part of the notification and BID distribution on 25 October 2018;
- Regular engagements were held with the Bishopscourt and Fernwood Ratepayers' Associations throughout the process to keep them informed regarding the progress on the matter;
- Focus Group Meetings were held with landowners adjacent to Erven 242 and 212 on 13 November 2018 and 14 November 2018, respectively;
- A site meeting was held with the Department of Water and Sanitation on 16 May 2019 and a follow up meeting was held on 29 October 2019;
- A Focus Group Meeting was held with representatives of the South African National Biodiversity Institute, City of Cape Town Environmental Management Branch, Friends of the Liesbeek and TreeKeepers on 19 November 2018;
- A one-on-one meeting was held with The Hill Pre-primary School on 19 March 2019;
- A one-on-one meeting was held with the City of Cape Town: Recreation and Parks Department;
- Presentations were made at two Heritage Western Cape Impact Assessment Committee ("IACom") meetings on 05 December 2018 and 10 July 2019, respectively; and
- The Draft Heritage Impact Assessment Report was published for comment for a period of 30 days from 07 June 2019 until 08 July 2019, and notification thereof was distributed to registered I&APs.

Application phase:

- Notification letters were distributed on 14 October 2020 via email, as well as via regular post to those I&APs who do not have email addresses;
- The draft BAR was made available for download from Chand Environmental Consultants' website for the duration of the commenting period;
- An IACom meeting with Heritage Western Cape was held on 17 November 2020;
- A Virtual Open House/webinar series was held during the draft BAR commenting period on 20 October 2020 and 21 October 2020, respectively; and
- The draft BAR was made available for a 35-day public commenting period from 15 October 2020 until 18 November 2020.

Authorities consulted

The authorities consulted included the following:

- South African National Parks;
- South African National Biodiversity Institute;
- Various departments within the City of Cape Town;
- DEA&DP Directorate: Pollution & Chemicals Management;
- DEA&DP Directorate: Waste Management;
- DEA&DP Directorate: Air Quality Management;
- DEA&DP Directorate: Biodiversity Management;
- Western Cape Department of Human Settlements;
- Western Cape Department of Health;

- Western Cape Department of Agriculture;
- CapeNature;
- Western Cape Department of Transport and Public Works;
- Department of Environment, Forestry and Fisheries;
- Department of Agriculture, Land Reform and Rural Development;
- Department of Water and Sanitation; and
- Heritage Western Cape.

The competent authority is satisfied that the Public Participation Process that was followed met the minimum legal requirements. All the comments that were raised and issues that transpired were adequately responded to and included in the BAR.

2. Alternatives

Two layout alternatives were assessed, namely the preferred alternative ("Revision N") and Alternative M.

"Revision N": Preferred layout alternative – herewith authorised:

The proposed project entails the development of residential and recreational facilities on Erven 242 and 212, Bishopscourt (the Protea Village Community Land Claim: Phase 1). The following will be established:

- Green public open space areas;
- A residential area for the 86 families of the Protea Village Community and associated services infrastructure; and
- A combination of freehold and leasehold residential opportunities and associated services infrastructure.

<u>Erf 242:</u>

Erf 242 will comprise of up to 86 plots and homes for the returning Protea Village Community. It will also have and internal road network and pocket parks, both of which will be managed by the City of Cape Town from an operational perspective.

<u>Erf 212:</u>

Erf 212 will include residential opportunities for private sale, and makes provision for a combination of freehold and leasehold sale. For Phase 1, up to five residential stands (*i.e.*, serviced plots) will be developed for private sale and approximately fifty residential units will be developed for leasehold sale.

Erf 212 will include approximately 42 100m² of public open space, including the Liesbeek River and the two associated converging streams, as well as a network of pedestrian footpaths/boardwalks and/or bridges. The Recreation and Parks Department of the City of Cape Town will maintain the open space areas from the top of the embankment.

The proposed development will connect to existing municipal infrastructure in terms of water supply, transport, electricity supply, sewage disposal, solid waste removal. There is an existing water main in Winchester Avenue which will provide a suitable connection point and the City of Cape Town has confirmed that there is sufficient capacity.

There is also an existing 160mm diameter sewer main along Winchester Avenue which the City of Cape Town has confirmed capacity for. Sufficient electrical capacity also exists within the system and electricity will be provided by cutting and extending the existing Rhodes Drive 11kV cable with new 11kV cables along Kirstenbosch Drive, which will feed a new miniature substation to be installed at the entrance to Erf 212. Low voltage underground cable feeders will supply the two individual underground reticulation networks for both erven.

Storm water management will comprise of a combination of storm water components including channels, pipes, two enhanced dry swales and two dry attenuation ponds. The Roads and Storm Water Branch of the City of Cape Town has committed to the maintenance of Kirstenbosch Drive and the roads and storm water infrastructure on Erf 242.

The residential areas will be accessed by a network of internal access roads. Access to the proposed Protea Village Community homes on Erf 242, as well as to the proposed private freehold/leasehold estate on Erf 212 will be gained from a shared point off Kirstenbosch Drive and will also provide the primary access to the proposed public open space Area on Erf 212. Approximately 16 parking bays will be developed for public use.

The proposed development also includes two access points off Winchester Road; one for each of the pockets of the proposed private freehold/leasehold estate on Erf 212. However, only the access to the northern freehold stands is included as part of Phase 1. Kirstenbosch Drive will also be furnished with an approximately 3m-wide sidewalk and cycle path along the southern side, including two bus embayments nearby the entrances to the development on Erven 242 and 212.

Some of the wetlands will be filled in and/or reshaped for the proposed development to be realised. The listed activities are relative to both movement of material and development/construction activities within watercourses, as well as the clearance of indigenous vegetation which occur within the following watercourses on site:

- Window Stream;
- Nursery Stream;
- Liesbeek River;
- Wetland 10;
- Wetland 11 (and associated seep);
- Wetland 9;
- Wetland 6;
- Wetland 7;
- Wetland 8; and
- Wetland 1 (only the eastern-most portion of Wetland 1 (just beyond/downstream of Pond 3) will be filled in for the development of homes (specifically the "row housing" and associated infrastructure component on Erf 212), as well as some reshaping and works for the establishment of the proposed parking lot for the public open space and for the storm water attenuation ponds and associated reshaped wetland area).

Clearing of indigenous vegetation throughout Erven 242 and 212 will also be undertaken. The total extent of indigenous vegetation to be cleared is approximately 5457.16m².

The preferred layout is a compromise between achieving the maximum resources for the development of the proposed 86 homes and the requirements/feedback received from Heritage Western Cape and the City of Cape Town. The preferred alternative provides a more direct access for the public to the proposed public open space area as well as to the spring. The direct connection to the spring will be for both the public as well as a symbolic connection for the Protea Village Community on Erf 242, given the Protea Village Community's strong historic ties to the spring. Although the preferred alternative will provide less capital for development on Erf 242, it is still within what is considered feasible in terms of the business case.

The benefits associated with the preferred alternative includes:

- 1. Homes and the reinstatement of a lost legacy for the returning Protea Village Community;
- 2. Sufficient capital generation to support the construction of the homes (through the realization of the proposed residential opportunities on Erf 212); and
- 3. Provision of a (albeit smaller than the current extent) public recreational amenity for all to use, which will formally be recognised and managed as public open space.

Furthermore, the preferred layout on Erf 212 avoids certain important trees and incorporate them into the road reserves. As is the case for Erf 242, the layout for Erf 212 has also been set back from Kirstenbosch Drive to accommodate the retention of important trees and to provide space for replanting of trees to maintain the scenic quality of Kirstenbosch Drive. It also provides enough space for an NMT walk/cycle way which will curve around the trees to be retained.

Although Phase 2 initially formed part of the proposed development, it does not form part of this application. Phase 1 and Phase 2 are stand-alone developments and as such, Phase 2 will be proceeded with at a later stage by the holder, with its own set of legal requirements to be met.

Phase 1 comprises not only development on Erf 242, which is reserved for the Protea Village Community members (the 86 units), but also a portion of the units allocated for freehold and leasehold on Erf 212. Phase 2 comprises only 10 units, as well as a small sewage pump on the southwestern corner of Erf 212 to service the proposed 10 plots, when developed.

Whilst the impacts of Phase 2 have been assessed, there are certain aspects which require further input and investigation by specialists. This further investigation will result in further delays and unnecessarily hamper the return of the Claimants to their ancestral land. The success of Phase 1 is not dependent on the implementation of Phase 2, since Phase 1 will still be economically viable from funds generated by the units allocated for freehold and leasehold on Erf 212.

<u>Alternative M</u>:

Alternative M is similar to the preferred alternative, but provides for a more discreet public access to the spring in the proposed public open space area. Although Alternative M creates a greater sense of an exclusive gated community, it renders the spring accessible only via a lengthy forest path. This, however, gives a greater sense of privacy to the historical site.

Alternative M was not deemed as preferred, since the conservation of the open space where the sports grounds were historically located on Erf 212, would jeopardise the development of Erf 242 and ultimately result in lesser homes for the returning 86 dispossessed families. The conservation of the open space, which is identified as a heritage indicator, was deemed to be un-economical.

School site alternative:

A private school site with associated playing fields and parking were originally considered for Erf 212 (on a 99-year lease basis) together with two clusters of large single residential erven. The purchase of this 99-year lease by a school operator would provide the upfront capital required to implement the project. The remaining portion of Erf 212 would be public open space. Erf 242 would be developed with compact residential plots for the claimant community and a number of medium sized plots for sale on the open market.

Due to the price required for the leasehold land, a school operator required a school premises that would be capable of supporting up to 1400 pupils. A preliminary Traffic Impact Assessment indicated that this would generate approximately 1200 peak hour trips. This volume of trips would have necessitated significant external road upgrades at a considerable cost to the project and to the Protea Village Community.

Furthermore, upon receipt of the detailed Freshwater Assessment, it was found that the shape of the developable property was not conducive to the development of a multi-purpose school sports field.

The school site alternative was therefore rejected for the following reasons:



- 1. The anticipated peak hour traffic volumes generated by the school were too high for the area. A school would have a significant impact on traffic in the area, with approximately 1200 peak hour trips estimated and road upgrades required would be too costly;
- 2. The footprint requirements for the school and associated facilities (such as multi-purpose sport fields, halls, etc.) necessitated development within the buffer areas of the freshwater system on the site and the large school buildings would not fit well on the site due to the irregular shape and limited size afforded by the freshwater system buffers;
- 3. The sports fields were difficult to accommodate, since a private school requires fields of specific dimensions for its teams to compete in local sports leagues; and
- 4. The claimants' plots were designed with an average area of 180m². This was too small for the claimants and was rejected by the claimant community (*i.e.*, the holder).

Retirement village alternative:

The school site on Erf 212 was subsequently replaced with a retirement village and more of the large residential erven were added to generate additional financial resources. Erf 242 would be utilised solely for the claimants which enabled them to benefit from larger erven. The public open space component remained.

Although the retirement village alternative would generate reduced traffic impacts and larger plots for the Protea Village Community, it was rejected for the following reasons:

- 1. The village on Erf 242 could not retain many existing trees;
- 2. The retirement village would address an important social need, but would restrict the marketability of the plots to be offered on the open market;
- 3. Some of the retirement units extended close to the riverine corridor; and
- 4. Some of the retirement units extended close to the spring watercourse and would require wetland infilling.

"No-Go" Alternative:

This alternative entails maintaining the status quo which is based on the existing zoning rights pertaining to Erven 212 and 242, which is Agricultural Zone and a split zoning of General Residential 1: Group Housing and Agricultural. Under this alternative no rezoning, subdivision, consent or departure are assumed.

The no-go alternative is therefore development within existing rights, since there are presently rights and ownership associated with the two properties. Primary uses permitted in terms of the current Agricultural zoning of Erf 242 are agriculture, intensive horticulture, a dwelling house, riding stables, environmental conservation use, environmental facilities, and a telecommunication rooftop base station.

Additional use rights and consent uses will also be applicable. It will, however, be possible for the claimants to fence the properties to prevent trespassing. They could erect a dwelling house with outbuildings on Erf 212 and undertake some form of economic activity such as intensive agriculture or horse-riding stables in terms of the Agricultural zone. They can also operate occasional uses on Erf 242 such as craft markets and film shoots without rezoning.

The no-go alternative, or more correctly, the existing rights alternative, is not deemed viable since the process of land restitution will be unsuccessful since the Protea Village Community will not be able to return to the land from which they were evicted. Further, since the Preferred Alternative will not result in unacceptable environmental impacts, the "No-Go" alternative was not warranted.

3. Impacts, assessment and mitigation measures

3.1 Activity Need and Desirability

The site has historically been inhabited by the Protea Village Community (i.e., there is historic use of the site for residential purposes), with the earliest presence of this Community dating back to the 17th and 18th centuries, with post-slavery settlement occurring from 1834.

The Protea Village Community lodged a land claim on 04 February 1995, in accordance with the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994). Of the 132 claimants, 86 claimants opted for the restitution of land.

An area of approximately 28.4ha of land was claimed, relating to the property that was lost by the Protea Village Community when forced removals took place. Not all of the dispossessed land can however be restored to the claimants since much of this land has been subdivided and developed as residential plots as part of the Bishopscourt and Fernwood suburbs. However, approximately 12.35ha, comprising Erven 212 and 242 Bishopscourt, have been awarded to the claimants.

The Protea Village Community is not able to develop the land itself and, in association with the Department of Rural Development and Land Reform, engaged a development facilitator to assist. A business model has been formulated, based on the need to raise finance in order to build houses and infrastructure for the claimants. Each claimant family will have a dwelling house on a serviced plot on Erf 242.

The development funds will be obtained by selling both leasehold portions and freehold stands on Erf 212. The development will be phased and implemented to match the cash resources that are required by the project. Various scenarios have been considered to match the projected funding and cash flow requirements. Significant engagement with the Protea Village Claimant Community, the City of Cape Town and the Department of Rural Development and Land Reform has occurred to ensure that the development concept meets the requirements of the 86 families.

The proposed leasehold and freehold residential opportunities are not a deviation from the land claim award. To generate the necessary resources to service 86 stands and construct 86 houses, portions of the property need to be sold to the market. In terms of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994), the Minister of Rural Development and Land Reform is required to formally consent to any alienation of land where a land claim has been awarded. Application to the Minister for the required consent is underway in accordance with the business plan.

The proposed development will result in improvements to the socio-economic status and well-being of the Protea Village Community, allow them to return home and begin to reinstate their inter-generational legacy, as well as provide for environmental and social justice.

Erf 212 is currently owned by the City of Cape Town under Title Deed T33794/1974. On 29 September 2017, the City approved the subdivision of Erf 212 into two development portions. An amendment has subsequently been approved on 18 September 2019, which subdivides Erf 212 into three portions, namely Portion 1 of Erf 212, Portion 2 of Erf 212 and Remainder Erf 212, thereby facilitating the transfer from the City of Cape Town to the Department of Rural Development and Land Reform as an interim step, prior to the transfer of the land to the Protea Village Community Property Association ("CPA"), in

accordance with the land claim award. The Remainder of Erf 212 (public place) will be retained by the City of Cape Town as a public open space area.

Erf 242 is currently owned by the National Department of Public Works under Title Deed T10637/2009. This Department must obtain approval from National Treasury to transfer this land to the Protea Village CPA, which has been obtained, in accordance with the land claim award.

Erf 212 is zoned Agricultural, whilst Erf 242 is shown to have a split zoning of General Residential 1: Group Housing and Agricultural. However, the City of Cape Town has advised that the zoning of Erf 242 is questionable and the correct zoning may be "Limited Use Zone". There is also no zoning as Public Open Space presently allocated to the site. Portions 1 and 2 of Erf 212 have already been approved through subdivision and the extent of these portions align with the proposed development footprint of the preferred alternative.

The potential zoning issues will be addressed through a town planning application comprising a rezoning of Portions 1 and 2 of Erf 212 to Subdivisional area, as well as the remainder to Public Open Space, followed by subdivision and consent use application (for utility services).

The site falls within the urban edge and is earmarked for new residential infill in terms of the Southern District Spatial Development Plan ("SDP") 2012, which also acknowledges the existence of the land claim. The Plan identifies Erven 212 and 242 as new development areas and discusses the site in terms of Spatial Development Objectives and supporting land use guidelines. The site is clearly identified in the District Plan for "Potential Medium Density Development".

The erven have been identified in the Municipal Spatial Development Framework for medium density residential development. Erf 212 will have a low-density residential development in the central and western portions and medium density in the north eastern portion.

The proposed development serves to address key challenges of the Provincial Spatial Development Framework ("PSDF") 2014, most notably that of changing apartheid geography as well as combatting inequality. The proposed development is also supported by the intention to have infill development within urban areas to combat urban sprawl.

With respect to the ecological goals of the PSDF, the site has been assessed by a freshwater ecologist to determine the sensitive areas, and mitigation measures have been provided which are incorporated into the EMPr. The Liesbeek River and riparian zone will continue as a public open space to provide the community with a recreational area, as well as to maintain the ecological connection with the Kirstenbosch Botanical Gardens.

3.2 Botanical Impacts

The indigenous vegetation is concentrated in the riparian zone and only present in association with freshwater systems on the site. The maximum total area of indigenous vegetation which will be cleared totals 5457.16m².

In CapeNature's comment, dated 3 April 2019, on the Background Information Document, they stated that "According to the Biodiversity Network (BioNet) for the CoCT and the WCBSP, the site is classified as No Natural and the natural vegetation that would have occurred on site is Peninsula Granite Fynbos (Critically Endangered). The Liesbeek

River traverses the site flowing in an easterly direction and there are five wetlands mapped on the BioNet in the eastern section of Erf 212". A botanical survey was done in 2003, which confirms the concentration of indigenous vegetation in freshwater areas. Therefore, the Freshwater Impact Assessment has considered impacts on indigenous vegetation.

The trees on site have been surveyed and this survey has been peer reviewed by a qualified arboriculture specialist. Each tree was qualitatively assessed in terms of general health, whether or not the tree can be considered a feature, whether or not the tree can be considered a feature, and conservation.

Approximately 954 trees were identified on the site, with about 181 being indigenous. Approximately 357 trees are listed as alien invasive and a further 352 trees are exotic. There are also 38 stumps, which have not been categorised in terms of whether they are indigenous, invasive, or exotic, which will be remove. The trees have been categorised in terms of whether they are dead or living, damaged, number of stems, clusters, suppressed growth and their general conditions (*i.e.*, good, fair, excellent, poor) and whether there are feature trees worthy of conservation. The following protected tree species have been found on site:

- Afrocarpus falcatus = Podocarpus falcatus;
- Afrocarpus latifolius= Podocarpus latifolius;
- Curtissia dentate; and
- Ocotea bullata.

Trees which have been identified as 'dangerous' on Erf 242 will be removed or pruned appropriately as homes are constructed. Trees which fall within the footprint of roads and services infrastructure will also be removed. Certain trees have been avoided through the preferred layout.

Efforts have been made to retain the most significant and conservation-worthy trees on the site. Furthermore, the proposed landscaping intent includes inter-planting of new trees to retain the leafy nature of the area. These measures have been deemed acceptable mitigation from both a heritage as well as a visual perspective.

3.3 <u>Freshwater Impacts</u>

A Freshwater Assessment Report dated December 2019 was compiled by Freshwater Consulting cc to assess the potential freshwater impacts associated with the proposed development.

Two major streams pass through the study area, namely Window Gorge Stream ("Window Stream") and Nursery Ravine Stream ("Nursery Stream"). The streams join towards the downstream boundary of the site and are known thereafter as the Liesbeek River. The streams are fed by a number of small springs/seeps, as well as storm water runoff passing into the river via numerous storm water pipes and open channels. The two streams enter the site via box culverts under Winchester Avenue.

A small perennial spring or seep flows across the north eastern sector of the site, where it is associated with broad wetlands. Erf 242 includes areas of disturbed seepage wetland, and a seasonally wetted artificial drainage channel along its northern boundary, which discharges into the storm water system on Boshof Avenue.

Window Stream

Window Stream enters Erf 212 via a box culvert under Winchester Avenue. At the culvert, the stream has a high, steep bank, the top and margins of which are largely vegetated with indigenous vegetation as well as a host of indigenous trees.

At the bottom of the steep bank, the stream flows over gravels, cobble and boulders. Where the channel is more open, indigenous plant species have established/remain, including Palmiet reed.

Undercut banks are also prevalent along Window Stream, especially on the outer banks of bends in the river, but there are also gently shelving margins along the inside bends. The steep banks and wide incised channel buffer the stream from surrounding land uses and isolate the river in the upper reaches making it difficult for non-aquatic riverine fauna to access the stream from the banks.

Nursery Stream

Nursery Stream enters the site via a culvert under Winchester Avenue and runs along the southern boundary of Erf 212 until it converges with Window Stream to become Liesbeek River. The right bank is edged by boundary fences and gardens of residences along Upper Bishopscourt Drive.

Although the left-hand riverbank is not as steep as the Window Stream banks, fencing, shading and encroachment of gardened areas of adjacent erven have resulted in the bank being steep and largely inaccessible to non-aquatic riverine fauna. The slope of the left-hand bank is still quite shaded by trees (indigenous and alien) which limit vegetation in these parts and render the banks susceptible to erosion. A water quality monitoring point is located on Nursery Stream, just downstream of the Winchester Road Culvert. Window and Nursery Stream both have a Present Ecological State ("PES") Category D rating.

Liesbeek River

Window Stream converges with Nursery Stream towards the eastern boundary of Erf 212, forming the Liesbeek River. The river channel is wider and the banks range from steep to vertical, which are vulnerable to undercutting, but have gentler margins on the right-hand bank. The right-hand banks are abutted by residential erven which have had a significant and large impact on the condition of the river.

The banks at the downstream end of the site are also steep and eroding in places. Water quality in the Liesbeek River has been tested and found to be moderate and the river is likely to be relatively sensitive to changes in water quality, particularly nutrient enrichment. The habitat integrity of the Liesbeek River is affected by similar factors to those of Window Stream upstream and is also rated as an overall PES Category D.

Wetlands on Erf 242

Wetland 10 comprises a wide vegetated swale which houses largely alien vegetation (e.g. kikuyu, weeds, and garden exotics such as nasturtium and snowdrops) interspersed with indigenous species such as *Chasmanthe* sp. The wetland is a relic of storm water drainage from the site, which drains via Boshof Avenue to a piped storm water system entering the Liesbeek River downstream of the crossing under Kirstenbosch Drive. The wetland is dry in the summer, but flows as a slow trickle in the winter, being fed by both concentrated road runoff as well as sheet flow and seepage from the upslope areas of the site, including Wetland 11. Wetland 10 is considered to hold a low conservation importance and no PES has been ascribed given the artificial nature of the watercourse.

Wetland 11 is also located on Erf 242 and seeps downslope into wetland 10 with some water being conveyed towards the swale/artificial drainage channel along Kirstenbosch Drive. The wetland comprises a series of shallow depressions which expose the shallow water table during the wet season. The vegetation within the wetland largely comprises of alien species and ornamental garden plants such as kikuyu and summer snowdrop. However, some occasional tufts of indigenous species and wetland sedge are present. The wetland holds minimal biodiversity importance, but plays some role in the controlled conveyance of storm water flows into wetland 10 and the subsequent storm water system.

Wetland 11 has been ascribed a PES Category D as it is fragmented and experienced complete loss of wetland vegetation, but retains some hydrological function. Wetland 11 has low to moderate conservation value because of cumulative importance in terms of runoff attenuation.

The wetlands on Erf 242 are small, highly altered and in some cases artificial. Their habitat value is low and their functional value can be effectively mitigated/replicated in the planned storm water management system. The wetlands have a conservation importance of low to moderate only on the grounds of its cumulative contribution to storm water management.

Wetlands on Erf 212

Erf 212 overall contains a system of rivers and wetlands as well as a small perennial spring, which daylights just north and upstream of the confluence of Window Stream and Nursery Stream.

The spring or seep flows across the north-eastern section of Erf 212 and is associated with broad wetlands, which would have historically drained into the Liesbeek River, but is now cut off from the Liesbeek River.

Wetland 1 is the most valuable wetland on the site and highly deserving of protection. It encompasses the spring, ponds (1, 2 and 3) and wetland areas (2, 3, and 5). It is fed by the spring and would historically have entered the Liesbeek River just upstream of the Kirstenbosch Drive crossing. It no longer does as a result of development on Erf 240 and the required diversion of flow into a narrow-grassed swale north of the building (which conveys flows to an outlet in the Liesbeek River). The river channel incision of the Liesbeek in the relevant reaches has also resulted in vertical separation from the wetlands on the upper bank. The water quality of the seep is similar to that of the Liesbeek River (*i.e.*, acidic, low levels of dissolved salts and some eutrophic conditions). The wetland has been ascribed a Category C PES and is considered to be of high conservation importance.

The eastern-most portion of Wetland 1 (just beyond/downstream of Pond 3) will be filled in for the development of homes (specifically the "row housing" component on Erf 212), as well as some reshaping and works for the establishment of the proposed parking lot for the public open space and for the storm water attenuation ponds. However, most of the wetland will remain undeveloped and be located within the proposed Public Open Space area.

Wetland 2 (well) is an artificial waterbody that was created to provide access to the water from the spring and the surface lay near to the water table, even at the height of the summer 2018 drought.

Wetlands 3, 4, and 5 or Ponds 1, 2 and 3 are excavated impoundments within the seep and although individually they have a low conservation value, they form part of the seep,

which has high conservation value. Ponds 1 and 3 (Wetlands 3 and 5) are deep and do not support emergent plant growth. Pond 2 and the associated wetland 4 is shallow and vegetated by largely indigenous wetland plants. The three ponds are hydrologically linked to the spring, one another as well as the surrounding wetland 1.

Wetlands 6, 7, and 8 are defunct (permanently lost hydrological drivers) and void of indigenous vegetation. The hydrological processes which would have supported these wetlands have been largely destroyed. It is presumed that Wetland 6 was historically part of a watercourse which was then diverted into the artificially aligned Window Stream and that Wetland 7 was originally fed by Wetland 6, therefore it also lost its source of seepage. Wetland 8 is a relic of past drainage systems which were cut off by the extensive infilling done decades ago. These wetlands have no conservation importance and no PES has been ascribed.

Wetland 9 is seasonally saturated and dominated by kikuyu grass and snowdrops. There is seepage from this wetland which would have originally formed part of the larger seep, but is now fragmented and it has lost its indigenous vegetation and only retains some hydrological function. Wetland 9 is assessed as a Category D PES and is considered to be of low conservation importance.

Summary of impacts on the watercourses

The activities associated with the Window Stream, Nursery Stream and Liesbeek River are limited to the construction of storm water outlets, either from pipes or swales.

No development will take place within the ponds or wetlands 3, 4, and 5. Although the proposed development includes the creation of a memorial at the spring, it will not require structures with foundations or a large footprint and will typically be an information poster or a plaque of commemoration. The details thereof will be finalised during the design phase and in collaboration with the City of Cape Town, Heritage Western Cape, the Protea Village Community and any associated heritage organisations who would like to assist.

The buffers around the watercourses, as recommended in the Freshwater Assessment Report dated December 2019 as compiled by Freshwater Consulting cc, have been incorporated into the proposed development layout. The Freshwater Impact Assessment findings indicate that the sustainability of the system will not be compromised (although habitat will be lost) by the proposed buffers. The recommendation of a search and rescue has also been included in the EMPr.

The impact on biodiversity as it pertains to the aquatic system (i.e., loss of wetland and indigenous riparian habitat) on site has been considered. There is a certain extent of habitat which needs to be retained for the aquatic system to remain sustainable. This has been considered (and buffers instituted).

The most significant adverse impact of the proposed development centres around the freshwater ecosystem prior to mitigation. Certain impacts on the freshwater ecosystem are anticipated to be Medium to High negative prior to mitigation. However, since alternatives were investigated to revise the proposal such that adequate open spaces are provided on Erf 212 to minimize potential impacts on ecologically important wetland areas, the proposed development will despite the loss of wetlands, not contribute to downstream degradation, but retain the most ecologically important wetlands on the site. The freshwater specialist report has concluded that the impacts on aquatic ecosystems as a result of the development will have a medium to high negative significance. Further, the proposed development is not considered as unsustainable if the

mitigation measures are implemented. The recommended mitigation measures have been incorporated in the EMPr and will be implemented.

A General Authorisation was issued by the Department of Water and Sanitation on 24 October 2019 for the purpose of ground stabilisation to develop a residential development on Erf 242. A Water Use License Application has also been lodged for the proposed development and dewatering activities on Erf 212.

3.4 <u>Visual impacts</u>

A Visual Impact Assessment ("VIA") Report dated 27 April 2020 was compiled by David Gibbs.

According to the VIA Report, the landscape character of the site is an anthropic environment in transition, located in a transitional zone or interface between "rural" and "urban" areas. The site is largely flat and holds striking mountain views to the west and northwest which provide a strong visual connection to the Table Mountain Range. The rural component relates to the site itself, which is highly transformed with natural vegetation being replaced by deliberately introduced trees (mostly exotic) and grassy meadows, as well as the mountain domains and botanical gardens.

The urban component relates to the surrounding neighbourhoods which present a variety of densities and layouts (some more compact and grid-like, with others more sub-urban organic typologies).

The trees provide cover which, when removed, will reduce the visual absorption capacity of the site. The landscape character of the regional setting as well as the local context are both considered highly sensitive because of areas of high visual/scenic amenity and proximity to residential neighbourhood and scenic routes. respectively.

Key visual resources include Kirstenbosch Drive, the sylvan nature of the site and the rivers/streams which traverse it. There are also views and view corridors from Rhodes Drive and Winchester Drive, as well as those provided by the pedestrian pathways. Views and view corridors also exist from the neighbouring properties, although foreground vegetation provides some screening.

The VIA concluded that the site has moderate visual sensitivity; highly sensitive visual receptors; moderate sensitivity to visual change; moderate visual absorption capacity; with a moderate visual intrusion of the proposed development being expected. An overall significance of anticipated visual change is at a moderate level if there are no mitigation measures in place.

Currently the boundary with Appian Way has a low fence with vistas onto Erf 242. A wall of approximately 2.1m high will be erected along most of the erf boundary, however, boundary treatment will be a combination of visually permeable fencing and walls, subject to detail design. The planting of trees and shrubs in the remaining road reserve in Appian Way is suggested to soften the visual impact of the proposed wall.

Summary of visual impacts

Although the proposal is certain to effect a noticeable change to the status quo, given that the site is fairly large in extent, and that some vegetation cover will be lost as a result of development, it is clear that the proposal has been informed by (and responds sensitively to) environmental, visual and heritage considerations and can be appropriately mitigated. From a visual perspective, the proposal responds to the visual sense of place and sylvan nature of the site through the retention of a large portion of the site to be rezoned as Public Open Space. The proposed Public Open Space will include the riparian corridor with its associated wetlands, pools and pedestrian pathways.

The existing vegetation that will remain, as well as other mature specimen trees will contribute to the visual amelioration of the development. The response to the rural (informal/relaxed) quality of Kirstenbosch Drive will be responded to through the planning layout (which deliberately sets the proposed development back from the road verge); the proposed landscaping, which includes the retention of the healthy trees that currently line the road; as well as proposed inter-planting of trees along this line.

The Architectural Design Guidelines will address the look-and-feel of the proposal in detail and will provide limits/broad design considerations within which development may take place in order to preserve the integrity of the landscape and maintain synergy with the surrounding context. Such considerations include aspects such as height and scale of buildings, massing, and aggregation of buildings as well as landscape and building interaction. The proposed development will become woven into the existing cultural landscape patterns and contribute positively to the local character.

The visual impacts were assessed as medium negative prior to mitigation and low negative post mitigation.

3.4 <u>Cultural and Heritage impacts</u>

A Heritage Impact Assessment ("HIA") Report dated September 2019 was compiled by ACO Associates cc.

The HIA Report indicates that the site today is a wooded suburban enclave through which the upper reaches of streams forming the Liesbeek River flows. The land became an arboretum which accommodates some 900 mature trees of a variety of species after the forced removal of the residents. Although the proposed site retains a wooded shady green quality, and is somewhat reminiscent of what the area looked like in the past, its quality is in part a result of the apartheid period of forced removals and sterilization of the site.

The conservation of important trees and the creation/conservation of public open space will be accommodated. Furthermore, the layout conserves trees wherever possible, and new planting will follow to make up for trees that have to be removed.

The site is a place where people lived for a long time. Although the tree canopy has become denser since the forced removals, the trees are a very important part of the site and this is echoed by Heritage Western Cape. The arboretum has become an important place in Bishopscourt where residents enjoy the riverside trails and walk their dogs. It functions as public open space while Erf 242 is an informal parking area for concert goers and the Kirstenbosch Craft and Food Market. Furthermore, the site is not located within the buffer zone of the Table Mountain National Park.

The main heritage indicator is the sylvan quality of the area set against its backdrop of Table Mountain. However, this was a place where people lived with associated impacts. The heritage indicators are as follows:

• The wooded (sylvan) and scenic qualities of the site as an interface between suburbia and the slopes of Table Mountain (this has increased substantively after forced removals, especially on Erf 242);

- The Liesbeek riparian zone and its tributaries (including the Protea Village Community spring) have high historical, aesthetic, and ecological value worthy of Grade 2 heritage significance. The Liesbeek is a cultural landscape and frontier of conflict during the earliest days of the Cape;
- The archaeology of the site has been badly disturbed and not much have survived apart from the (estimated) 20th century dump;
- Kirstenbosch Drive is a historic route that still retains significant features: an avenue-like quality, cobbled verges and gutters and disused bus stops; and
- The conservation of open space where the sports grounds were historically located on Erf 212.

There are also off-site heritage indicators, but that these are unaffected and include the Church of the Good Shepherd, the old stone steps to the School and the Stone Cottages adjacent to Erf 242.

The need for more direct access to the spring (for both the Protea Village Community on Erf 242 as well as the general public) resulted in the design of the preferred layout alternative, which incorporates this access.

The proposed development will have an acceptable and positive impact on the main heritage qualities of the site in that the proposed development acknowledges the natural qualities of the site and has achieved a good balance between development and retaining riverine and forest areas as public open space. The return of the villagers to their ancestral area is a positive heritage impact in itself as it represents a closure of a circle of history that started with the alienation of indigenous pastoral communities from their traditional lands.

The architectural design of the homes will respond to the "look-and-feel" of the surrounding area and neighbourhood. Architectural Design Guidelines will be developed to maintain the architectural integrity, as well as to prevent the establishment of illegal structures. The residences will also each have a boundary wall or fence and the wall layout and design will provide safety and privacy to the residents.

A combination of visually permeable fences and walls will allow for privacy and integration with the surrounding context. Visually permeable fences will be erected alongside the streets, but walls will be erected along the rear of the properties where there are existing dwellings. This will, however, be resolved during the detailed design stage and be implemented in accordance with the Architectural Design Guidelines. All buildings will be subject to building plan control by the City of Cape Town and illegal buildings will be subject to the processes of the municipal enforcement section.

The claimants' homes will be similar in size to many of the proposed leasehold homes, but smaller in size compared to the remaining leasehold homes and freehold homes, and will share some of the same quality and style of the leasehold homes. The claimants' houses and leasehold houses will share an architectural style to integrate into the surrounding neighbourhood. The size of the house will not compromise or dictate the quality of the product. Architectural aspects such as roof details, window details and plaster techniques will be the same between the leasehold and the Protea Village Community's houses. Similarities in colour, texture, material, and scale (height) in the buildings, as well as recognisable landscape features, will provide a common thread throughout the proposed development.

A green public open space area will be incorporated which encompasses the streams/river on the site (including the spring and ponds) and takes cognizance of the

existing footpaths and trees in the area. A public parking area situated at the primary access point off Kirstenbosch Drive is included in the layout.

The storm water attenuation ponds will be landscaped to look like the surrounding wetland/ seep areas, with some footpaths around them. A series of small "pocket parks" are proposed on Erf 242 which will be zoned and used as Public Open Space.

Heritage Western Cape in their final comment dated 18 November 2020 indicates that the Committee accepts that the primary consideration is the return of the Community to the land. They offered no objection to the proposed development in the south-west portion of the site, *i.e.*, south of the stream. The Committee accepted the development of Erf 242 (the claimant village), but require the inwardly focused model to address its relationship with the stone cottages to the west of its boundary, and provide a meaningful and tangible connection between the two. The Committee reluctantly accepted the development to the western half of the portion of property directly to the south of Kirstenbosch Drive, but stringent conditions have to be determined in due course, amongst others. Heritage Western Cape's recommended measures have been included in the conditions of this Environmental Authorisation and the EMPr.

Responses to Heritage Western Cape letter dated 18 November 2020:

The boundary with the stone cottages has two characteristics. Along the southern part, the houses of the claimant community will share a boundary with the stone cottages. In this part the living areas of the houses and gardens will face towards the stone cottages, and a visually permeable fence will be erected. The occupants of the houses will benefit from views towards the mountain and the cottages and will be able to connect visually with the cottages. These occupants will be families or descendants of families who were forcibly removed from the area, and so a strong visual connection is appropriate. This arrangement is preferred than having a road along the entire boundary with the stone cottages, since the living areas will tend to be on the other side of the house away from the cottages.

Along the northern part, there is a public road that will wind around existing trees and a visually permeable fence with at least one pedestrian gate will link to the stone cottages. This will provide direct pedestrian access for all of the residents of the village directly to the stone cottages, and a visual connection and reminder to these residents of the heritage of the cottages. This combination of built and non-built form, with visual permeability and direct pedestrian access, is an appropriate interface between the village and the stone cottages. As for the rest of the site, the design is a logical response to the surrounding context, environmental determinants, road hierarchy and surrounding built form, but importantly, it responds to the needs of the claimants.

The holder recognises the importance of ensuring public access to the open space and spring on Erf 212 and, as such, has designed the access to Erf 212, south of Kirstenbosch Drive, to be provided as public street that cannot be privately controlled. Access to the spring and public open space will remain open to the public, given that the access road will be designated its own land unit, being Erf 515, that will be rezoned to "Transport 2" for Public Street usage. This Erf 515 will be transferred to the City of Cape Town and will remain open for use by the public as public street.

3.5 <u>Traffic impacts</u>

A Traffic Impact Assessment Report dated January 2019 was compiled by ITS (Innovative Transport Solutions), to investigate the potential traffic impacts of the proposed development on the surrounding road network.

There is currently no formal access to the site. Four access points are proposed, namely, the two off Winchester Drive (one of these will only be realised in Phase 1), as well as the main access along Kirstenbosch Drive and the parking access also off Kirstenbosch Drive. The accesses and available shoulder sight distances are acceptable.

In terms of existing (*i.e.*, 2017) traffic conditions, all existing study intersections are operating at acceptable levels of service with the exception of Upper Bishopscourt/Edinburgh Drive during the am and pm peak hours where congestion are experienced.

In terms of 2022 Background Traffic Conditions, all existing study intersections are expected to continue to operate at acceptable levels of service and Upper Bishopscourt/Edinburgh Drive will continue to experience poor levels of service during the peak hours.

No further upgrades to the road network are required to alleviate traffic congestion. The traffic impact of the proposed development will be marginal as the 160 trips expected are spread over the network at various locations, so that the nett effect is not concentrated at one location but over a few intersections.

The current traffic congestion experienced along the metropolitan road network is due to the impact of regional traffic and not that of development traffic. The Traffic Impact Assessment Report acknowledges the congestion experienced at Upper Bishopscourt/Edinburgh Drive intersection. The M3 attracts regional traffic and congestion can always be expected along this route. The Upper Bishopscourt approach has already been widened to provide additional capacity. The traffic impacts were identified in the BAR as being of low negative significance.

3.6 Geotechnical impacts

The Geotechnical Report compiled by Kantey and Templer 2016 and 2017 indicated that the trial holes confirmed the presence of the hill wash and colluvial boulder gravels. The materials are described as of 'transported' origin and neither residual granite nor granite bedrock was intersected in any of the trial holes.

The fill layer (the first approximately 0.5m to 0.6m thick section of earth) comprise sandy soil, with properties resembling the underlying hill wash. The hill wash, with a starting depth ranging from 0m to 0.6m and end-depth ranging from 0.4m to 1.7m, is a variably clayey to silty fine to medium grained sand containing scattered sub-rounded to rounded gravel cobble and isolated boulders, with very loose to loose consistency. There is organic matter throughout with tree roots being well-developed over localised areas.

Groundwater was intersected as moderate to strong seepage flows at 1m to 3m below ground level. The water represents a seasonally fluctuating water table which is perched on the virtually impervious residual soils and bedrock which underlie the site at depth.

During periods of sustained winter rains, the water table is likely to rise significantly and stabilise at levels close to and, in the lower lying parts of the site, at existing ground level. At these levels, the water can be expected to saturate the soils within which foundation excavations, service trenches and road box-cuts will be formed during construction with strong subterranean seepages anticipated in places. The near-surface seepages may result in unstable/matrassing subgrade conditions over access/construction road areas. However, groundwater is not likely to be present other than in low-lying areas of the site during the summer months.

The site is not totally unsuitable for development, provided that foundings are in the underlying medium dense hill wash or that subsoil conditions will be improved by way of compaction. No soil conditions exist on site which are unfavourable for development.

3.7 <u>Storm water impacts</u>

Storm water management will be carried out according to the City of Cape Town Sustainable Urban Drainage System ("SUDS") requirements. The policy requirements for the flow rate, volume and water quality will be met through the implementation of the proposed Storm Water Management Plan. Provision is made for emergency overland escape routes which split the excess water among surrounding roads, the Liesbeek River and the storm water ponds, thereby avoiding flooding downstream.

The design of the entire system has been devised to support the continued sustainability of the freshwater ecosystem by having the water pass through a variety of pipes, swales, ponds, and over gabions in some areas. The two primary goals are to ensure that the water quality is acceptable and to ensure dissipated water flow into the system to avoid erosion and flooding. The overall aim of the storm water system is to ensure that storm water peak flows are managed to pre-development levels.

Whilst no existing storm water management network is presently located on site, there is such infrastructure located in surrounding roads namely Winchester Avenue, Boshof Avenue and Appian Way.

The storm water will be collected and transported from various points throughout the site using storm water channels (*i.e.*, the initial conduit) and pipes (*i.e.*, the second conduit) and will be directed into attenuation ponds for cleaning before being discharged into the Liesbeek River downstream of the site.

The two detention ponds will comprise of a forebay for the trapping of sediment and a deeper, wetter area which will provide sufficient depth for a 1:5-year storm event. Both ponds will be equipped with a spillway for larger storm events with Pond 1 spilling over into Pond 2 and Pond 2 spilling over into the Liesbeek River.

Pond 1 will more than likely be wet for most of the year since it is located within the seepage path of existing wetlands on the site. The two swales will comprise of a number of check dams to reduce water flow rate and allow for some treatment of the storm water before being discharged into the Liesbeek River. A draft Stormwater Management Plan has been compiled and will be sent to the City of Cape Town for approval prior to the commencement of the construction phase.

The development will result in both negative and positive impacts.

Negative Impacts:

The most significant negative impacts relate to those on the freshwater system, with these impacts being rated from medium to high and medium to low. The impacts relate to loss of wetlands and associated habitat, degradation of the system and water quality, as well as changes to on site hydrology. The remaining negative impacts are low or very low and these relate to aspects such as traffic congestion, operational phase impacts on the freshwater system, use of natural resources and other construction-related aspects such as visual disturbance, traffic interruptions, and generation of dust and noise. All anticipated impacts can be mitigated to acceptable levels for the preferred alternative and specifically in the case of the freshwater impacts.

Positive impacts:

The most significant positive impacts are related to social and socio-economic aspects with all of these being high. Other positive impacts are medium (*i.e.*, heritage) and low (*i.e.*, return of faunal habitat and the sylvan nature of the site over time).

Positive and negative Impacts, post mitigation, for the preferred alternative are as follows:

Negative impacts			Positive impacts	
Impacts	Significance mitigation)	(post	Impact	Significance (pos mitigation)
Loss of wetland and indigenous riparian habitat	Medium to High		Return of the Protea Village community and re-instatement of their social and financial legacy	High
Seep and river degradation as a result of development encroachment and increased recreational pressures	Medium		Job creation for people in the planning, design, and construction industry in order to realise the construction of the proposed development	High
Loss of habitat for fauna on site	Medium to Low		Potential impact on visual resources and cultural landscape character	High
Degradation of wetland seep 1 as a result of changes in on- site hydrology	Low to Medium		Loss of forest and meadows off-set by the conservation of riparian areas. The spring is to be conserved	Medium
Physical disturbance of the seep and rivers	Low to Medium		Job creation for people in the planning, design, and construction industry to ensure on- going maintenance and security for the proposed development	Medium
Traffic congestion/disruptions to traffic during construction works	Low		Partial return of habitat for fauna and continued return of fauna over time, until such time as the landscape reaches its carrying capacity	Low
Potential peak-hour traffic congestion in the local network as a result of the additional approximately 160 trips during the am and pm peak hours resulting from the proposed development and potential disruptions as a result of the access points proposed	Low		Changes in surface and subsurface flows into rivers	Low
Loss of wetland and riparian function	Low			

Degradation of rivers as Low
a result of changes in
on-site hydrology
Changes in seep and Low
river water quality as a
result of receipt of
contamination from the
construction site
Deterioration in spring Low
and river water quality
as a result of
contaminated storm
water runoff
Potential impact on Low
visual resources and
cultural landscape
character due to site
clearance, removal of
existing vegetation
(including trees),
earthworks, site camp
establishment, etc.
Operation of residential Very Low
development will result
in the use of natural
resources such as
water
Tree felling and Very Low
construction activities
will result in the
generation of dust and
noise which may be a
nuisance to
surrounding land users
whilst construction is

National Environmental Management Act Principles

The National Environmental Management Act 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.

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 NEMA 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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