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**BASIC ASSESSMENT REPORT   
IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED)**

**October 2017**

**PROJECT TITLE**

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| **The Proposed Clearance of Indigenous Vegetation for a proposed Housing Development and Associated Infrastructure on Erf 1901, Blue Downs.** |

**[Insert date of this report]**

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| **REPORT TYPE CATEGORY** | **REPORT REFERENCE NUMBER** | **DATE OF REPORT** |
| Pre-Application Basic Assessment Report (if applicable)1 |  | November 2018 |
| Draft Basic Assessment Report2 |  |  |
| Final Basic Assessment Report3 or, if applicable Revised Basic Assessment Report4 (strikethrough what is not applicable) |  |  |

**Notes:**

1. In terms of Regulation 40(3) potential or registered interested and affected parties, including the Competent Authority, may be provided with an opportunity to comment on the Basic Assessment Report prior to submission of the application but must again be provided an opportunity to comment on such reports once an application has been submitted to the Competent Authority. The Basic Assessment Report released for comment prior to submission of the application is referred to as the “Pre-Application Basic Assessment Report”. The Basic Assessment Report made available for comment after submission of the application is referred to as the “Draft Basic Assessment Report”. The Basic Assessment Report together with all the comments received on the report which is submitted to the Competent Authority for decision-making is referred to as the “Final Basic Assessment Report”.
2. In terms of Regulation 19(1)(b) if significant changes have been made or significant new information has been added to the Draft Basic Assessment Report , which changes or information was not contained in the Draft Basic Assessment Report consulted on during the initial public participation process, then a Final Basic Assessment Report will not be submitted, but rather a “Revised Basic Assessment Report”, which must be subjected to another public participation process of at least 30 days, must be submitted to the Competent Authority together with all the comments received.

**DEPARTMENTAL REFERENCE NUMBER(S)**

|  |  |
| --- | --- |
| Pre-application reference number: |  |
| File reference number (EIA): |  |
| NEAS reference number (EIA): |  |
|  | |
| File reference number (Waste): | N/A |
| NEAS reference number (Waste): | N/A |
|  | |
| File reference number (Air Quality): | N/A |
| NEAS reference number (Air Quality): | N/A |
|  | |
| File reference number (Other): | N/A |
| NEAS reference number (Other): | N/A |

**CONTENT AND GENERAL REQUIREMENTS**

**Note that:**

1. The content of the Department’s Circular EADP 0028/2014 (dated 9 December 2014) on the “One Environmental Management System” and the Environmental Impact Assessment (“EIA”) Regulations, 2014 (as amended), any subsequent Circulars, and guidelines must be taken into account when completing this Basic Assessment Report Form.
2. This Basic Assessment Report is the standard report format which, in terms of Regulation 16(3) of the EIA Regulations, 2014 (as amended) must be used in all instances when preparing a Basic Assessment Report for Basic Assessment applications for an environmental authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (“NEMA”)and the EIA Regulations, 2014 (as amended) and/or a waste management licence in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (“NEM:WA”), and/or an atmospheric emission licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (“NEM:AQA”) when the Western Cape Government: Environmental Affairs and Development Planning (“DEA&DP”) is the Competent Authority/Licensing Authority.
3. This report form is current as of October 2017. It is the responsibility of the Applicant/ Environmental Assessment Practitioner (“EAP”) to ascertain whether subsequent versions of the report form have been released by the Department. Visit the Department’s website at [**http://www.westerncape.gov.za/**](http://www.westerncape.gov.za/)**eadp** to check for the latest version of this checklist.
4. The required information must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The tables may be expanded where necessary.
5. The use of “not applicable” in the report must be done with circumspection. All applicable sections of this report form must be completed. Where “not applicable” is used, this may result in the refusal of the application.
6. While the different sections of the report form only provide space for provision of information related to one alternative, if more than one feasible and reasonable alternative is considered, the relevant section must be copied and completed for each alternative.
7. Unless protected by law, all information contained in, and attached to this report, will become public information on receipt by the competent authority. If information is not submitted with this report due to such information being protected by law, the applicant and/or EAP must declare such non-disclosure and provide the reasons for believing that the information is protected.
8. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this report must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.
9. This Report must be submitted to the Department and the contact details for doing so are provided below.
10. Where this Department is also identified as the Licencing Authority to decide applications under NEM:WA or NEM:AQA, the submission of the Report must also be made as follows, for-

* Waste management licence applications, this report must also (*i.e.,* another hard copy and electronic copy) be submitted for the attention of the Department’s Waste Management Directorate (tel: 021-483-2756 and fax: 021-483-4425) at the same postal address as the Cape Town Office.
* Atmospheric emissions licence applications, this report must also be (*i.e.*, another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department’s Air Quality Management Directorate (tel: 021 483 2798 and fax: 021 483 3254) at the same postal address as the Cape Town Office.

**DEPARTMENTAL DETAILS**

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| **CAPE TOWN OFFICE** | | **GEORGE REGIONAL OFFICE** |
| **REGION 1**  **(City of Cape Town & West Coast District)** | **REGION 2**  **(Cape Winelands District & Overberg District)** | **REGION 3**  **(Central Karoo District & Eden District)** |
| Department of Environmental Affairs and Development Planning  Attention: Directorate: Development Management (Region 1)  Private Bag X 9086  Cape Town,  8000  Registry Office  1st Floor Utilitas Building  1 Dorp Street,  Cape Town  Queries should be directed to the Directorate: Development Management (Region 1) at:  Tel.: (021) 483-5829  Fax: (021) 483-4372 | Department of Environmental Affairs and Development Planning  Attention: Directorate: Development Management (Region 2)  Private Bag X 9086  Cape Town,  8000  Registry Office  1st Floor Utilitas Building  1 Dorp Street,  Cape Town  Queries should be directed to the Directorate: Development Management (Region 2) at:  Tel.: (021) 483-5842  Fax: (021) 483-3633 | Department of Environmental Affairs and Development Planning  Attention: Directorate: Development Management (Region 3)  Private Bag X 6509  George,  6530  Registry Office  4th Floor, York Park Building  93 York Street  George  Queries should be directed to the Directorate: Development Management (Region 3) at:  Tel.: (044) 805-8600  Fax: (044) 805 8650 |

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**ACRONYMS USED IN THIS BASIC ASSESSMENT REPORT AND APPENDICES:**

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| BAR Basic Assessment Report  CBA Critical Biodiversity Area  DEA National Department of Environmental Affairs  DEA&DP Western Cape Government: Environmental Affairs and Development Planning  DWS National Department of Water and Sanitation  EIA Environmental Impact Assessment  EMPr Environmental Management Programme  ESA Ecological Support Area  HWC Heritage Western Cape  I&APs Interested and Affected Parties  NEMA National Environmental Management Act, 1998 (Act No. 107 of 1998)  NEM:AQA National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)  NEM:ICMA National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008)  NEM:WA National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)  NHRA National Heritage Resources Act, 1999 (Act No. 25 of 1999)  PPP Public Participation Process |

**DETAILS OF THE APPLICANT**

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| --- | --- | --- | --- |
| Applicant / Organisation / Organ of State: | City of Cape Town: Human Settlement Implementation | | |
| Contact person: | San-Marie van Jaarsveld | | |
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**DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER (“EAP”)**

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| --- | --- | --- | --- |
| Name of the EAP organisation: | Sillito Environmental Consulting (SEC) | | |
| Person who compiled this Report: | Chantel Müller  Adrian Sillito | | |
| EAP Reg. No.: | Adrian Sillito: | | |
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| E-mail: | [chantel@environmentalconsultants.co/za](mailto:chantel@environmentalconsultants.co/za) | | |
| EAP Qualifications: | Pr. Sci. Nat.; Certified EAPSA; Accredited Professional of the Green Building Council of South Africa | | |

Please provide details of the lead EAP, including details on the expertise of the lead EAP responsible for the Basic Assessment process. Also attach his/her Curriculum Vitae to this BAR.

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| This report was authored by Chantel Müller of SEC.  Chantel has a BA Social Dynamics and obtained her MPhil Environmental Management at the University of Stellenbosch in October 2008.  Chantel has more than 12 years’ experience in the field of environmental management, impact assessment and control.  This report was reviewed by Adrian Sillito of SEC.  Adrian is a certified environmental assessment practitioner (CEAPSA), Professional Natural Scientist (Pr.Sci.Nat.) and a member of the South African branch of the International Association for Impact Assessment (IAIAsa).  SEC has extensive experience in environmental assessment procedures and has completed several thousand environmental projects in most provinces of South Africa since 1998.  **Please refer to Appendix K of this report for Curriculum Vitae of Adrian Sillito and Curriculum Vitae of Chantel Müller.** |

**EXECUTIVE SUMMARY OF THE BASIC ASSESSMENT REPORT:**

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| INTRODUCTION  *SEC has been appointed by City of Cape Town: Human Settlements Implementation to undertake the necessary environmental application in terms of the National Environmental Management Act No. 107 of 1998 for the proposed Blue Berry Hill residential development, Erf 1901, Blue Downs.*  *The proposed residential development will be located on the remainder of Erf 1901, Blue Downs. Measuring approximately 6.9ha in extent. The site generally referred to as Blueberry Hill, is located within Blue Downs, north of the N2 and east of the R300, between Eersteriver and Blue Downs Way and directly north of Forrest Drive.*  *The property is largely undeveloped with the exception of a section of housing on Erf 358 and a few housing units on Stemberry Road.*  DESCRIPTION OF THE RECEIVING ENVIRONMENT  *According to the Civil Engineering Scoping report (Nadeson, March 2018) the site is divided by a watershed that runs from a high point close to the northern boundary of the site with falls in the region of 2.5%. The site however also has sections of undulating terrain that creates localised low points.*    *According to Mucina and Rutherford’s Vegetation Map of South Africa, Lesotho and Swaziland, the site falls within an area where Swartland Shale Renosterveld and Cape Flats Dune Strandveld are the predominant indigenous vegetation types which is endemic to the area. These are thus likely to occur on any untransformed land in the area.*  THE PROPOSED DEVELOPMENT  *The City of Cape Town proposes a human settlement development which allows for a variety of housing opportunities including FLISP (Finance Linked Individual Subsidy Programme), BNG (Breaking New Ground) and Incremental Housing.*  *The main emphasis will be on high density residential opportunities and an estimated 3 932 residential opportunities can be created on the property. Other land uses over and above the residential erven will be community facilities, public open spaces and commercial, retail and service industries to provide future employment opportunities.*  ***ALTERNATIVE 4 (Preferred alternative): Second draft detail subdivision layout (including the no-go sensitive area)***  *This was the second detail subdivision layout plan which was done and accommodates a 40m sensitive no-go buffer area on the western boundary of the site as proposed by the botanist. The sensitive no-go area is 2,68ha in size.*  *The total residential yield for this layout is 3 932 units, of which 3 706 are subsidy units and 226 are GAP units. This amounts to a gross density of 49, 8 units per hectare.*  *A detailed description of the proposed development is included in Section 2 b) of this report below.*  LEGISLATIVE REQUIREMENTS  *On the 4 December 2014 the Minister of Environmental Affairs promulgated regulations in terms of Chapter 5 of the NEMA, viz, the EIA Regulations 2014 (as amended), Government Notice (GN) No. R. 982, R. 983 (Listing Notice 1), R. 984 (Listing Notice 2) and R. 985 (Listing Notice 3) in Government Gazette No. 38282 of 4 December 2014. These new EIA Regulations came into effect on 8 December 2014 and were amended on 7 April 2017.*  *In terms of potential environmental legislation triggers, the proposed development will likely trigger the following listed activities:*  *NEMA Listing Notice 1*  *Activity 27*  *NEMA Listing Notice 3*  *Activities 12*  *The above mentioned listed activities in Listing Notices 1 and 3 would require a Basic Assessment type application prior to development.*  OTHER APPLICABLE LEGISLATION, POLICIES, CIRCULARS AND/OR GUIDELINES  ***ENVIRONMENTAL***  ***EIA Guideline and Information Document Series, dated March 2013***   * *Guidelines for EIA Requirements* * *Guidelines for Public Participation* * *Guidelines on Alternatives* * *Guideline on Need and Desirability* * *Guideline for Involving Biodiversity Specialists in EIA Processes* * *Guideline for Environmental Management Plans*   ***National Water Act, 1998 (Act No.36 of 1998)***  *According to the Freshwater Consulting Group Site Scan and Freshwater Consulting Group Eskom Servitude Scan (attached in* ***Appendix G*** *of this report) no wetlands have been identified on or immediately**adjacent to Erf 1901. This implies that the proposed development will not trigger any of the**watercourse-related listed activities of the EIA Regulations in terms of the National Environmental**Management Act (Act No. 107 of 1998).*  *There may be wetlands located within 500 m of the site, but all of these wetlands are either upslope of the site or separated from the site by existing tar roads (and their associated stormwater drainage networks). As such, it is highly unlikely that the proposed residential development will be able to significantly alter the bed, banks, course or characteristics of these wetlands. This implies that the proposed development should not trigger the need for Water Use Authorisation in terms of*  *Sections 21 (c) or (i) of the National Water Act (Act No. 36 of 1998).*  ***National Environmental Management: Biodiversity Act (10/2004) [NEMBA]***  *According to the “NEMBA National List of Ecosystems that are threatened and in need of protection”, Cape Flats Dune Strandveld which would have originally occurred on the entire site and still occurs in patches on the site, is an ENDANGERED vegetation type/ecosystem.*  ***HERITAGE***  ***National Heritage Resources Act, 1999 (Act No. 25 of 1999)***  ***Cultural Landscape***   |  | | --- | | ***Refer to Heritage Notice of Intent to Develop, Lita Webley – Perception Planning, May 2018 as included in Appendix G as well as HWC feedback attached in Appendix D*** |   ***PLANNING***  ***City of Cape Town Municipal Planning By-Law, 2015***  *Applications in terms of the City of Cape Town Municipal By-Law, 2015 includes:*   * *Consolidation;* * *Rezoning of the subject properties to a Sub divisional Area overlay zone;* * *Subdivision of the Sub divisional Area Overlay Zone to allow for the following land uses / zonings:*   + *Single residential 1;*   + *Community zoning 1;*   + *Local Business zoning 2;*   + *General Business zoning 1;*   + *Utility zoning;*   + *Transport zoning 2;*   + *Open Space zoning 1: Environmental Conservation*   + *Open Space zoning 2.* * *Permanent departures;* * *Phased subdivision; and* * *Approval of street names.*   ALTERNATIVES  *The proposed development is a City of Cape Town subsidised housing project. It will include fully Subsidised as well as GAP housing opportunities. The full range of educational and community facilities as per the City’s requirements will be provided. Mixed use facilities including commercial and economic opportunities will be catered for in the development.*  *The development of the proposal and the application procedures will be done according to the “Package of Plans” approach. Thus the first phase is to draft a Development Framework Plan and thereafter do a detailed layout which will be submitted for approval in terms of the CoCT Bylaw.*  *In line with this “Package of Plans” approach a Development Framework Plan (DFP) has been prepared in order to illustrate how the development will fit into the existing surrounding urban structure. The DFP shows what the development will entail in terms of its primary road structure; its land uses and aims to determine what the residential yield could be within the development fixes and constraints. It also allows for a process whereby all the relevant departments are given an opportunity to provide their input at an early stage before the detailed layout plan is drafted.*  *After the initial presentation of the DFP to the relevant City of Cape Town branches in June 2018, the DFP has undergone various amendments. Amendments to the DFP were based on inputs received from the various City branches as well as inputs received in terms of environmental sensitivities as identified during the Feasibility Scanning phase of the EIA process.*    ***LAYOUT/DESIGN ALTERNATIVES***  ***ALTERNATIVE 1: First draft concept block layout (no sensitive area)***  *This alternative was the initial concept block layout plan proposing development for the entire subject property, not including any sensitive area. As this plan was conceptual the areas and numbers are only estimated.*  *The development is proposed to be a mix between subsidy housing and GAP housing units. However the GAP housing will only make up a small percentage of the development, approximately 5% as required by the City of Cape Town Housing Department. The subsidy housing is proposed to consist of a mix of single and double storey semi-detached, 3 and 4 row housing and the GAP units is proposed to be single storey freestanding units.*  *In terms of residential distribution, it is proposed that the GAP units be located to the north and eastern parts of the site, closer to Blue Downs way to serve as a buffer between the middle to higher income established residential areas. The remainder of the site will be subsidised housing.*  *The residential yield of this layout is proposed to be approximately 3 533 units which gives a gross density of 49 units per hectare.*  *A social / community node is proposed in the centre of the development where the schools, sport field and community centre will be located. A couple of smaller nodes and public open spaces is proposed and distributed across the rest of the development including crèche / ECD and place of worship sites. These facilities are approximately 7ha in total.*  *Business and mixed use sites (approximately 6ha in total) are proposed along Blue Downs way and at main intersections and entrance points to the development.*  *One detention pond of approximately 0,8ha is proposed in the south-western corner of the site.*  *The main and internal movement routes is based on a grid structure and as some of the roads are already existing and serves as development fixes, the road network were planned taking these roads into consideration. The road hierarchy varies between 22m, 16m, 13m and 10m roads. In terms of parking, no on-site parking will be provided. Parking can be in the courtyards and on-street.*  ***ALTERNATIVE 2: Second draft concept block layout (including the no-go sensitive area)***  *This alternative was the initial concept block layout plan proposing development for the entire subject property excluding the entire no-go sensitive area of approximately 10,7ha on the western boundary as indicated by the Botanist. As this plan was conceptual the areas and numbers are only estimated.*  *The development is proposed to be a mix between subsidy housing and GAP housing units. However the GAP housing will only make up a small percentage of the development, approximately 5% as required by the City of Cape Town Housing Department. The subsidy housing is proposed to consist of a mix of single and double storey semi-detached, 3 and 4 row housing and the GAP units is proposed to be single storey freestanding units.*  *In terms of residential distribution, it is proposed that the GAP units be located to the north and eastern parts of the site, closer to Blue Downs way to serve as a buffer between the middle to higher income established residential areas. The remainder of the site will be subsidised housing.*  *The residential yield of this layout is proposed to be approximately 3 079 units which gives a gross density of 42 units per hectare.*  *A social / community node is proposed in the centre of the development where the schools, sport field and community centre will be located. A couple of smaller nodes and public open spaces is proposed and distributed across the rest of the development including crèche / ECD and place of worship sites. These facilities are approximately 7ha in total.*  *Business and mixed use sites (approximately 5ha in total) are proposed along Blue Downs way and at main intersections and entrance points to the development.*  *One detention pond of approximately 0,8ha is proposed in the south-western corner of the site.*  *The main and internal movement routes is based on a grid structure and as some of the roads are already existing and serves as development fixes, the road network were planned taking these roads into consideration. The road hierarchy varies between 22m, 16m, 13m and 10m roads. In terms of parking, no on-site parking will be provided. Parking can be in the courtyards and on-street.*  ***ALTERNATIVE 3: First draft detail subdivision layout (no sensitive area)***  *This was the first detail subdivision layout plan which was done on the full potential of the site, thus also including the sensitive no-go area in the developable area of the subject property.*  *The total residential yield for this layout is 4 272 units, of which 4 046 is subsidy units and 239 is GAP units. This amounts to a gross density of 51, 4 units per hectare.*  *In terms of housing typologies, the image below illustrates the typical housing typologies, erf sizes and dimensions proposed for the development.*    *In terms of residential distribution, only approximately 5% is proposed to be GAP housing and the rest subsidised housing. The GAP units are located towards the eastern part of the site, closer to Blue Downs way and all along Blue Downs way due to the existing middle to higher income residential area in this location.*  *The following table indicates the non-residential land uses which are proposed as part of the development:*    *The distribution and location of the schools allows for easy access to all the residents. The sports field will be a community sports field and will be located in the centre of the development and on the main access roads to improve access to the residents of the proposed development as well as to the surrounding communities. The Primary School to the south and east of the sport field will share the sport facilities and are therefore reduced in size to allow only for the school buildings. This sharing of facilities are proposed in order to reduce costs and land area and in turn increase the densities which allows for the much needed increase in residential opportunities.*  *Six local nodes is provided and distributed as such so that it is easily accessible to all residents. These local nodes consist of a cluster of erven allocated for a public open space (from 640² – 1 495m²), crèche / ECD (from 779² – 1 509m²) and a place of worship (from 1 022² – 1 518m²).*  *The layout also makes provision for one electrical substation in the south-eastern part of the site as required by the Electrical Engineers. The mini-substation positions will only be determined at the detail design stage.*  *The civil Engineers calculated the stormwater run-off and required a total of four detention ponds to be provided. One in the south-western corner, one slightly to the north adjacent to the western boundary and the other two on the eastern boundary adjacent to Blue Downs Road. The total size of the detention ponds is 2,65ha.*  *The road hierarchy as determined by the City’s Transport department in consultation with the consultant project Engineers is 18m, 16m, 12m, 10m and 8m. There are five access roads which forms the main internal movement system. These roads vary between 18m, 16m and 12m. The rest of the lower order internal roads are 10m and 8m. The 8m roads are only located at the GAP units as these erven are big enough to accommodate on-site parking. The subsidy erven does not accommodate on-site parking but only parking in the courtyards and on-street. For this reason the road reserve widths are 10m to allow for parking on one side of the road.*  ***ALTERNATIVE 4 (Preferred alternative): Second draft detail subdivision layout (including the no-go sensitive area)***  *This was the second detail subdivision layout plan which was done and accommodates a 40m sensitive no-go buffer area on the western boundary of the site as proposed by the Botanist. The sensitive no-go area is 2,68ha in size.*  *The total residential yield for this layout is 3 932 units, of which 3 706 is subsidy units and 226 is GAP units. This amounts to a gross density of 49, 8 units per hectare.*  *In terms of housing typologies, the image below illustrates the typical housing typologies, erf sizes and dimensions proposed for the development.*    *In terms of residential distribution, only approximately 5% is proposed to be GAP housing and the rest subsidised housing. The GAP units are located towards the eastern part of the site, closer to Blue Downs way and all along Blue Downs way due to the existing middle to higher income residential area in this location. The northern part of the site is proposed to be subsidised units, but only semi-detached to create a lower density in this area adjacent to the established residential area to the north. This area can then also in future accommodate GAP housing units if there is an increased demand for this type of housing.*  *The following table indicates the non-residential land uses which are proposed as part of the development:*    *The distribution and location of the schools allows for easy access to all the residents. The sports field will be a community sports field and are located in the centre of the development and on the main access roads to improve access to the residents of the proposed development as well as to the surrounding communities. The Primary School to the south of the sports field will share the sport facilities and are therefore reduced in size to allow only for the school buildings. This sharing of facilities is proposed in order to reduce costs and land area and in turn increase the densities which allows for the much needed increase in residential opportunities.*  *Seven local nodes is provided and distributed as such so that it is easily accessible to all residents. These local nodes consist of a cluster of erven allocated for a public open space (from 653² – 1 495m²), crèche / ECD (from 620² – 1 509m²) and a place of worship (from 657² – 1504m²).*  *The layout also makes provision for one electrical substation in the south-eastern part of the site as required by the Electrical Engineers. The mini-substation positions will only be determined at the detail design stage.*  *The civil Engineers calculated the stormwater run-off and required a total of four detention ponds to be provided. One in the south-western corner, one a bit to the north adjacent to the western boundary and the other two on the eastern boundary adjacent to Blue Downs Road. The total size of the detention ponds is 2,67ha.*  *The road hierarchy as determined by the City’s Transport department in consultation with the consultant project Engineers is 18m, 16m, 12m, 10m and 8m. There are five access roads which forms the main internal movement system. These roads vary between 18m, 16m and 12m. The rest of the lower order internal roads are 10m and 8m. The 8m roads are only located at the GAP units as these erven are big enough to accommodate on-site parking. The subsidy erven does not accommodate on-site parking but only parking in the courtyards and on-street. For this reason the road reserve widths are 10m to allow for parking on one side of the road.*  ***No-Go Alternative***  *The no-go option entails the maintaining of the status quo of the site. In this case, the no-go option would mean that the development will not take place and that there will consequently be no clearance of vegetation for the sake of development.*  *The site will remain as is, undeveloped.*  *The no-go alternative will fail to address the dire need for housing in the Blue Downs – as well as larger City of Cape Town area.*  *Given the scale of the proposed housing development, a considerable economic contribution to the local community in the form of employment opportunities will also be foregone should the development not take place.*  *Should the property remain vacant it will also most likely attract vagrancy, littering and other undesirable activities thereby compromising the safety and environmental quality of the area.*  ***Pros and Cons of the No-Go Alternative***   * *The No-Go alternative will likely result in the gradual decline and degradation of the vegetation on site unless access control, ongoing clearing of invasive alien plants as well as regular maintenance is undertaken on the site.*   PUBLIC PARTICIPATION  *Two rounds of public participation (PP) will be undertaken as part of this BA process. The first round of PP will be undertaken prior to the submission of the Application Form for Environmental Authorisation and a “Pre-App BA Report will be circulated for comment during this first PP period.*  *The BA Report will be circulated for a second round of PP after submission of the Application Form for Environmental Authorisation. Both rounds will be undertaken for a 30-day period. All comments received will be incorporated in the*  *Basic Assessment Report (BAR).*  *The Public Participation Process (PPP) is described in detail hereafter.*  ***Initial and Draft Basic Assessment Report Notification:***  *Identified interested and affected parties as well as Organs of State will be notified of the Basic Assessment process and notified of the availability of the “Pre-Application” Basic Assessment Report (Pre-App BAR) for review and comment. The following parties will be notified of the availability of the Pre-App BAR:*  *• Adjacent landowners/occupants*  *• Ratepayer’s/ Home owners Associations in the area*  *• Department of Environmental Affairs and Development Planning: Development Management*  *• Department of Water and Sanitation*  *• South African National Road Agency Limited (SANRAL)*  *• Heritage Western Cape*  *• Cape Nature*  *• City of Cape Town Municipality – Sub-councillor (Subcouncil 22)*  *• City of Cape Town Municipality – Ward Councillor (Ward 17)*  *• City of Cape Town: Environmental & Heritage Resource Management Department*  *In addition to this, in accordance with Section 41 (2) of the 2014 NEMA EIA Regulations (GN. No. R982), notice will also be given to all potential or registered interested and affected parties.*  *In accordance with Section 40 (1) of the NEMA EIA 2014 Regulations (GN. No. R982), all potential or registered interested and affected parties, including the Competent Authority will be provided with the opportunity to review and comment on the Pre-App BAR and EMPr for a period of at least* ***30 days*** *dating from /// to ///****.***  *Comments received and responses sent during the initial the public comment period for the Pre-App BAR will be recorded in a Comments and Responses Report.*  ***Final Basic Assessment Report Notification:***  *Following the first round of public participation, the application for Environmental Authorisation will be submitted to the Competent Authority.*  *After the submission of the application for Environmental Authorisation, in accordance with Section 40 (3) of the 2014 NEMA EIA Regulations (GN. No. R982), all potential or registered interested and affected parties, including the Competent Authority will be given the opportunity to review and comment on the BAR and EMPr for a period of at* ***30 days.***  *The BAR will include all issues and concerns raised by registered stakeholders during the Pre-App BAR phase public participation process.*  *Comments received and responses sent during the public comment period for the BAR will be recorded in an updated Comments and Responses Report.*  *In accordance with Section 19 (1) (a) of the 2014 NEMA EIA Regulations (GN. No. R982), within a period of* ***90 days****, the BAR, the EMPr, the updated Comments and Responses Report and copies of all comments received and responses sent during the public participation periods will be submitted to the DEA&DP for a decision****.***  *As per Section 20 (1) of the NEMA EIA Regulations 2014 (GN. No. R982), the applicant will then await the DEA&DP’s decision within* ***107 days*** *of the DEA&DP’s receipt of the final BAR.*  ENVIRONMENTAL ASPECTS AND POTENTIAL IMPACTS ASSOCIATED WITH THE ALTERNATIVES   |  | | --- | | ***Refer to Botanical Site Screening and Botanical Assessment, Paul Emms – Bergwind, June 2018 and October 2018 as included in Appendix G*** |  |  | | --- | | ***Refer to Freshwater Site Scans, Dean Ollis – Freshwater Consulting Group, June 2018 as well as October 2018 included in Appendix G*** |  |  | | --- | | ***Refer to Preliminary Geotechnical Assessment, SRK Consulting, March 2018 as included in Appendix G*** |  |  | | --- | | ***Refer to Civil Engineering Report, Nadeson Consulting Services, October 2018 as included in Appendix G*** |  |  | | --- | | ***Refer to Heritage Notice of Intent to Develop, Lita Webley – Perception Planning, May 2018 as included in Appendix G as well as HWC feedback attached in Appendix G*** |  |  | | --- | | ***Refer to draft Traffic Impact Assessment Report by Sturgeon Consulting Engineers, November 2018 as included in Appendix G*** |   ***GEOGRAPHICAL, GEOLOGICAL AND PHYSICAL ASPECTS***  *According to the Civil Engineering Scoping report (Nadeson, October 2018) the site is divided by a watershed that runs from a high point close to the northern boundary of the site with falls in the region of 2.5%. The site however also has sections of undulating terrain that create localised low points.*  *These areas will require shaping (cut to fill) to prevent ponding/flooding. DCP results have indicated that portions of the site have very loosely compacted soils to depths of roughly 0.5m. In these areas the loose soils will be cut, filled and compacted in layers to achieve the required density. Shaping of plots with surplus cut material will be required to prevent the costs associated with spoiling the material.*  ***Regional Geology***  *According to the preliminary Geotechnical Site Assessment Report (SRK, March 2018) previous investigations undertaken in the area indicate that the site is likely to be covered by a layer of Aeolian sand.*  *The thickness of the Aeolian sand is likely to vary depending on the height and extent of the former sand dunes. It is expected that the Aeolian sand thickness is likely to be in the order of 1 m to 2 m (dependant on the nature of the former sand dunes).*  *In general, the soil profile is likely to be characterised by an upper layer of fine to medium sand of Aeolian origin (windblown). The Aeolian sand is likely to be underlain by a thin layer of clayey fine sand (inferred to be reworked Malmesbury clay). With increasing depth, the underlying soil is expected to comprise of clayey silt derived from the in situ weathering/decomposition of Malmesbury Group shale. No rock outcrop is expected to be present at the site, and it is unlikely that bedrock will be present within 3 m of the surface.*  *The near-surface soils are likely to consist of granular fine to medium sand of Aeolian origin. The extent to which the site may have been previously levelled is unknown (original topography may have been characterised by an undulating sand dune topography).*  ***ECOLOGICAL ASPECTS***  ***Freshwater***  *The June 2018 freshwater site scan by the Freshwater Consulting Group (FCG) concluded that the areas mapped as wetlands on the site by the City of Cape Town's Wetlands Map (highlighted in green in the map in* ***Figure 7*** *below) are NOT wetlands and that the areas we identified (in blue) as potential wetlands are not naturally-occurring wetlands.*  *A possible dune slack wetland area was observed along a short section of the north-western boundary of the site, extending from the servitude on the outside of that boundary.*  *The FCG were consequently appointed to conduct a scan of the portion of the Eskom servitude and N7 Road Reserve located along the north-western boundary of the site. The purpose of this site scan was to confirm whether any wetlands are present in the dune slack areas within the corridor of undeveloped land along the north-western boundary of the site.*  *The overall conclusion of the follow-up investigation and assessment of the servitude was that there are no wetlands associated with the dune slack areas in the portion of the Eskom servitude and N7 Road Reserve situated along the north-western boundary of the proposed development site.*  *As such, no wetlands have been identified on or immediately adjacent to Erf 1901.*  ***Botanical***  *The findings of this study show that the study area supports about 40 ha of mostly degraded but ENDANGERED Cape Flats Dune Strandveld, with a small portion of semi-intact vegetation and even smaller portion of intact vegetation. The question, within the context of the proposed development, is whether or not the remnant vegetation should be conserved and restored in the perpetuity. Two options were considered in this regard. The first option that was given consideration was to set aside a representative sample vegetation in the north-western sector of the site. Although some of the remaining areas of the site support patches of natural vegetation, they are regarded as being of poor ecological condition as well as occurring where long-term protection is not viable since the disturbance regime is high. Consideration was thus given to conserve this portion since it is representative sample of habitat and fortuitously happens to abut the Eskom servitude that contains ecologically intact vegetation and a remnant dune system that links natural areas to the north and south. This first option is problematic from a development point of view since the project, by virtue of being a low-cost housing development, seeks to maximize all of the available space provided by the undeveloped land. A second option was thus considered that places greater emphasis on protecting the Eskom servitude. The second option takes into consideration (a) the dire need to service the needs of communities with housing versus (b) a responsibility to ensure persistence of critical habitats. Consideration is given to rather protecting the Eskom servitude with an ecological buffer. It is emphasized that from a botanical perspective the No-Go buffer area is not sustainable without the long-term protection of the Eskom servitude since the intention is to buffer the existing ecological link formed by the servitude (maintaining the spatial ecological link between the CBAs to the north and south). The recommended 40 m wide buffer area is indicated in* ***Figure 18B****. This area should be protected from dumping and general disturbance in the event of the development being approved.*  ***Socio-economic aspects***  *Umtha Strategy Planning and Development has been appointed by COCT Human Settlement Implementation as Beneficiary Administration and Social Facilitators for the Blueberry Hill housing project.*  *Umtha is responsible for the effective coordination and management of effective and transparent public participation and socio-economic concerns related to the project such as housing beneficiary management and job creation during the project.*  *As part of Umtha’s scope of work in this project the following duties will be undertaken:*  ***Beneficiary Administrator***   * *Identify potential beneficiaries in terms of the City’s allocation policy with relevant stakeholders under guidance of the City’s Project Management and external Project Manager.* * *HSS Subsidy Registration and capture of beneficiaries* * *As well as other related tasks in completing the above*   ***Social/Community Facilitator***   * *Will form part of the project steering committee and be the liaison person between project matters and the community* * *Ensure effective public participation and transparency regarding beneficiary administration including preparation of public meetings etc.*   *Once the initial beneficiary meetings and public meetings, as specified above have been undertaken, there will be a clearer indication of the more detailed and specific socio-economic impacts and concerns.*  *As such the current pre-application BAR at this stage contains only general socio-economic impacts and an assessment of these. A detailed socio-economic impact assessment will be undertaken in the final BAR, once the most pertinent socio-economic impacts and concerns have come to light and mitigation measures have been identified.*  ***Historical aspects***  *The 1940 Topographical Map (****Figure 6*** *in NID report) shows the study area to be open land, with the Eerste Rivier Forest Reserve located to the north-west and Kleinvlei Farm to the east. There are references to the establishment of the beacons for the Forest Reserve by 1913. However, between 1917 and 1933, portions of the Eerste River Forest Reserve were being disposed for land settlement, specifically “proposed Coloured settlement on Cape Flats” (KAB ACLT\_751\_9704\_1). The subdivision of the Klein Vlei Farm, to the east of Blueberry Hill, commenced in the 1950s.*  *According to the Heritage Notice of Intent to Develop (Lita Webley, May 2018) only isolated patches of the original Cape Flats landscape occur in the area, as for example the Driftsands Nature Reserve to the west of the study area. It indicates the desolate wilderness that separated the City from the hinterland, and posed such an obstacle for hundreds of years.*  *By 1960, the general area had acquired the name of Blue Downs, and a collection of buildings, called Hindle Farm, are located on the eastern perimeter. Government records note that sewer reticulation to Blue Downs occurred with effect 1987.*  *According to the Surveyor General (SG 10086-86), Erf 1901 Blue Downs, originally comprised Portion 13 (a portion of portion 7) of the farm Eersriv No 981. An earlier SG map (SG 1656/72) dating to 1972, shows the subdivision of the farm. It was bordered on the east by the farm Klein Vlei No 461, the farm Driftsands No 544 to the east, the farms Bardale No 451 and Wimbledon No 454 to the north-west and north-east respectively.*  *In 1980, the Topographical Map still shows no development on the property, with Hindle and Bella Vista indicated on the eastern perimeter, and a row of trees following Eerste River Way, and crossing the property. The current outline of the area, Blueberry Hill, is shown on the 1990 topographical map. This map confirms that there are no buildings on the property, with the exception of those on Erf 15571 which do not form part of the current proposals (2005 Google Earth image of Erf 1901).*  ***Archaeological Aspects***  *In their 2011 assessment of an area 1km to the north of the proposed Blueberry Hill Development, Webley & Avery noted that very little pre-colonial archaeological material has been found in this part of the Cape Flats. Similarly, the survey by Hart (2009) of the Driftsands area (3km to the west), also found no archaeological remains. A number of surveys by Orton (2004, 2006, 2007) in the Eerste River and Kuils River areas failed to identify any archaeological material. Although early records have discussed so-called “Cape Flats” sites, these have proven to be remarkably elusive, and it seems unlikely that any concentrations of artefacts will be found in the study area. A specialist archaeological assessment will not be necessary.*  ***Palaeontology Aspects***  *Dr G Avery has commented on the proposed Blueberry Hill Housing Development in the attached letter (****Appendix 2 of NID report)****.*  *Referring to the preliminary geo-tech assessment, which indicates relatively shallow (probably Witzand Formation) cover sands becoming decomposed clayey Malmesbury over deeper Malmesbury substrate. He notes "the area skirts higher ground comprising Malmesbury soil/rocks and is at the easternmost extent of the Cape Flats dune plume. Late Pleistocene and earlier deposits, which may include palaeontological material, are normally deeper and much closer to the coast.*  *The Malmesbury derived soils are unlikely to include palaeontological material.*  *Foundations for housing developments are normally not deep and, apart from, and probably including, deeper infrastructure, unlikely to encounter palaeo material.*  *It is very unlikely that palaeontological material will be encountered and, should this prove not to be the case, the EMP could provide the necessary protocols.*  *He concludes that a “PIA will not be necessary".*  *The SAHRIS Palaeosensitivity map confirms that the proposed site and the Sir Lowry’s Pass in its entirety is of zero palaeontological sensitivity.*  ***Graves***  *There are no formally proclaimed cemeteries in this area. However, there is always a possibility that an unmarked illegal or historic grave could occur.*  ***Living Heritage***  *The very low vegetation on the property, comprising mainly ankle high grasses, and the absence of any indigenous vegetation – makes it very unlikely that the study area has been used for traditional or ritual purposes. There are no plants to use for medicinal purposes and no secluded areas for traditional purposes such as the Xhosa circumcision ceremony.*    ***Heritage Summary and Recommendations***  *The proposed residential development on Erf 1901, Blue Downs will not result in any significant impacts to heritage resources.*  *As such we recommend that no further heritage-related studies are required in relation to the proposed development of Blueberry Hill on Erf 1901, Blue Downs.*  *The NID was submitted to HWC and a response was received from HWC, as included in* ***Appendix G,*** *confirming that no further work is required in terms of heritage impacts.*  ***Traffic Impacts***  The report investigates the transport implications of the proposed Blueberry Hill residential development in Blue Downs. It summarises the existing transportation conditions within the site vicinity, provides an assessment of the transportation impacts of the proposed development on the surrounding road network, and recommendations regarding improvements to mitigate negative impacts where necessary.  The main findings and conclusions are:   * The proposed Blueberry Hill development will be on Erf 1901, Blue Downs. The site is located between Eersriv Way and Blue Downs Way and directly north of Forest Drive. * The proposed development will comprise 3 932 Residential Units (797 Subsidy Single Storey units, 2 909 Subsidy Double Storey units and 226 GAP Housing units), Places of Worship, Crèche, Primary School, Secondary School and General   Business.   * The impact of the development has been assessed during the weekday AM and PM peak periods of operation. * Spine Road and Eersriv Way carries medium to high traffic volumes during the AM and PM peak hours. * Forest Drive carries low to medium traffic volumes during the AM and PM peak hours. * Blue Downs Way carries medium to high traffic volumes during the AM and PM peak hours. * A growth rate of 5.0% per annum was used for the 1 to 5-year design horizon and 2.5% per annum was used for the 5 to 10 year design horizon. * Access to the proposed development will be from Eersriv Way, Forest Drive and Blue Downs Way. * The development has the potential to generate 1 510 trips during the AM peak hour (505 in and 1005 out) and 1 290 trips during the PM peak hour (841 in and 449 out). * The Sidra analyses of the existing 2018 traffic operations indicated that the Spine Road/Old Faure Road and Blue Downs Way/Hindle Road/Raymond Ackerman Avenue intersections are currently operating at unacceptable levels of service (LOS F) during both the AM and PM peak hours. The remaining study intersections operate at acceptable levels of service. * The duelling of Eersriv Way between Old Faure Road and Washington Street is currently under construction and is assumed for completion before 2023, detailed design being undertaken from Lukhozi Consulting Engineers and proposed layouts have been taken into account for the start of 2023. * For the background 2023 traffic volume analysis, the duelling of Spine Road / Eersriv Way was taken into consideration. This includes the construction of roundabouts at the Eersriv Way / Mfuleni Road / London Way, Eersriv Way / Forest Drive and Spine Road / Old Faure Road intersections. The Sidra results indicate that all the study intersections will operate at acceptable levels of service for the AM and PM peak hours. * For the total 2028 traffic volume analyses, various improvements are required to ensure that all study intersections operate at acceptable levels of service. * Forest Drive / Blue Downs Way: upgrade to a two-lane roundabout. * Blue Downs Way / Hindle Road / Mars Street: upgrade to a two-lane roundabout with additional lanes on each approach. * The geometry of each site access is as follow:   + Entrance 1: The Eersriv Way / Entrance 1 Access should be constructed as a left-in, left-out access only.   + Entrance 2: The Forest Drive / Entrance 2 access should be upgraded to a roundabout intersection.   + Entrance 3: Entrance 3 on Blue Downs Way is proposed as a two-lane entrance (one lane in each direction) with stop control along Entrance 3.   + Entrance 4: Entrance 4 on Blue Downs Way is proposed as a two-lane entrance (one lane in each direction) with stop control along Entrance 4.   + Entrance 5: Entrance 5 on Blue Downs Way is proposed as a two-lane entrance (one lane in each direction) with stop control along Entrance 5. * A link analysis of the road network for the 2023 and 2028 traffic scenarios were undertaken. The results indicate that the southbound leg of Spine Road operates near capacity during the AM peak hour and the eastbound leg of Forest Drive will operate over capacity (east of Eersriv Way) and near capacity (west of Blue Downs Way) during the PM peak hour for the 2028 scenario. * The proposed development is well located within a network of public transport routes and the future MyCiti trunk route along Hindle Road. * A portion of the Development Contributions should be used for the upgrading of bicycle lanes and/or sidewalks in the vicinity of the site along the main arterials that traverse the proposed development, where necessary. * Parking should be provided in accordance with the specified guidelines. * Adequate pedestrian and cycle facilities to be provided along the internal roads, where necessary. * Several principles for the provision of public transport facilities and accommodation of pedestrians have been included in the report to guide and assist in the provision.   From the report, the following are recommended:   * That the Forest Drive/ Blue Downs Way/ Bobs Way intersection is upgraded to a two-lane roundabout with widening at all approaches. * The Blue Downs Way/ Hindle Road/ Mars Street (Raymond Ackerman Ave) is upgraded to a two-lane roundabout with widening on all approaches to accommodate additional lanes. * The Eersriv Way/ Entrance 1 intersection becomes a left-in, left-out (LILO) only and the median break is closed. * The Forest Drive/ Entrance 2 intersection is upgraded to roundabout with an inscribed diameter of at least 32m. * The detail design of all the accesses to the Blueberry Hill development must be approved by the relevant road authority. * A portion of the development contributions should be used for the upgrading/construction of bicycle lanes and/or sidewalks in the vicinity of the development. This should be approved/confirmed by the CoCT’s TDA: Head of   Universal Access & Non-Motorised Transport.  This report has shown that the proposed development can be accommodated by the adjacent transport network, provided the recommendations presented in the report are implemented. From a traffic engineering perspective, the application for this development is supported.  CONCLUSION AND RECOMMENDATIONS  *The proposed development site is located within the urban edge which implies that it is suitably located for urban land uses. The proposed development is considered to be appropriate and consistent with the guiding principles and development approach spelt out in the approved SDF, furthermore it is also in line with the surrounding environment.*  *All impacts identified can be mitigated to acceptable levels of significance. All mitigation measures as described in Section F of this BAR must be implemented as well as the conditions, restrictions and mitigation measures included in the Environmental Management Programme (EMPr).*  *It is suggested that an ECO be appointed to ensure compliance with all relevant restrictive conditions and mitigation measures as included in the BAR and EMPr as well as the Environmental Authorisation.* |

**Section a: PROJECT information**

**1. ACTIVITY LOCATION**

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| --- | --- |
| Location of all proposed sites: | The site generally referred to as Blueberry Hill, is located within Blue Downs, north of the N2 and east of the R300, between Eersteriver and Blue Downs Way and directly north of Forrest Drive. |
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| Farm / Erf name(s) and number(s) (including Portions thereof) for each proposed site: | Remainder of Erf 1901, Blue Downs |
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| Property size(s) in m2 for each proposed site: | The site is approximately 83 hectares in extent |
|  |
|  |
|  |
| Development footprint size(s) in m2: |  |
| Surveyor General (SG) 21 digit code for each proposed site: | C06700240000190100000 |
|  |
|  |
|  |

**2. PROJECT DESCRIPTION**

|  |  |  |
| --- | --- | --- |
| 1. Is the project a new development? If “NO”, explain: | **YES X** | NO |
|  | | |

1. Provide a detailed description of the scope of the proposed development (project).

|  |  |
| --- | --- |
| The City of Cape Town proposes a human settlement development which allows for a variety of housing opportunities including FLISP (Finance Linked Individual Subsidy Programme), BNG (Breaking New Ground) and Incremental Housing.  The main emphasis will be on high density residential opportunities and an estimated 3 932 residential opportunities can be created on the property. Other land uses over and above the residential erven can be community facilities, public open spaces and commercial, retail and service industries to provide future employment opportunities.  **ALTERNATIVE 4 (Preferred alternative): Second draft detail subdivision layout (including the no-go sensitive area)**  This was the second detail subdivision layout plan which was done and accommodates a 40m sensitive no-go buffer area on the western boundary of the site as proposed by the Botanist. The sensitive no-go area is 2,68ha in size.  The total residential yield for this layout is 3 932 units, of which 3 706 is subsidy units and 226 is GAP units. This amounts to a gross density of 49, 8 units per hectare.   |  | | --- | | ***Refer to Botanical Site Screening and Botanical Assessment, Paul Emms – Bergwind, June 2018 and October 2018 as included in Appendix A*** |   The findings of the botanical study show that the study area supports about 40 ha of mostly degraded but ENDANGERED Cape Flats Dune Strandveld, with a small portion of semi-intact vegetation and even smaller portion of intact vegetation.  With the implementation of the “Preferred Alternative” a 40m no-go area along the north western border of the site, measuring approximately 2.7ha in total, will be kept as a buffer zone to the relatively intact vegetation that is present on the Eskom servitude immediately north of this buffer area. The remaining sections of indigenous vegetation will be cleared to accommodate the housing development.  *Given the above, Listing Notice 1 Activity 27 and Listing Notice 3 Activity 12 of the NEMA EIA Regulations 2014, relating to the clearance of indigenous vegetation will be triggered by the proposed housing development.* |

**Please note**: This description must relate to the listed and specified activities in paragraph (d) below.

1. Please indicate the following periods that are recommended for inclusion in the environmental authorisation:

|  |  |
| --- | --- |
| 1. the period within which commencement must occur, | **Within 3 years from date of authorisation** |
| 1. the period for which the environmental authorisation should be granted and the date by which the activity must have been concluded, where the environmental authorisation does not include operational aspects; | **8 years** |
| 1. the period that should be granted for the non-operational aspects of the environmental authorisation; and | **5 years** |
| 1. the period that should be granted for the operational aspects of the environmental authorisation. | **N/A The proposed housing development has no operational aspects** |

**Please note**: The Department must specify the abovementioned periods, where applicable, in an environmental authorisation. In terms of the period within which commencement must occur, the period must not exceed 10 years and must not be extended beyond such 10 year period, unless the process to amend the environmental authorisation contemplated in regulation 32 is followed.

1. List all the listed activities triggered and being applied for.

**Please** **note**: The onus is on the applicant to ensure that all the applicable listed activities are applied for and assessed as part of the EIA process. Please refer to paragraph (b) above.

**EIA Regulations Listing Notices 1 and 3 of 2014 (as amended):**

|  |  |  |  |
| --- | --- | --- | --- |
| Listed Activity No(s): | Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 1  (GN No. R. 983) | Describe the portion of the development that relates to the applicable listed activity as per the project description. | Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational. |
| 27 | The clearance of an area of 1 hectares or more, but less than  20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for  (i) the undertaking of a linear activity; or  (ii) maintenance purposes undertaken in accordance with a maintenance management plan. | The findings of the botanical study show that the study area supports about 40 ha of mostly degraded but ENDANGERED Cape Flats Dune Strandveld, with a small portion of semi-intact vegetation and even smaller portion of intact vegetation.  With the implementation of the “Preferred Alternative” a 40m no-go area along the north western border of the site, measuring approximately 2.7ha in total, will be kept as a buffer zone to the relatively intact vegetation that is present on the Eskom servitude immediately north of this buffer area. The remaining sections of indigenous vegetation will be cleared to accommodate the housing development.  *Given the above, Listing Notice 1 Activity 27 and Listing Notice 3 Activity 12 of the NEMA EIA Regulations 2014, relating to the clearance of indigenous vegetation will be triggered by the proposed housing development.* | Development |
| Listed Activity No(s): | Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 3  (GN No. R. 985) | Describe the portion of the development that relates to the applicable listed activity as per the project description. | Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational. |
| 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.  (a) 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;[[1]](#footnote-1)**  ii. Within critical biodiversity areas identified in bioregional  plans;  iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional  zone, whichever distance is the greater, excluding where such removal will occur behind the development  setback line on erven in urban areas;  iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open  pace, conservation or had an equivalent zoning; | The findings of the botanical study show that the study area supports about 40 ha of mostly degraded but ENDANGERED Cape Flats Dune Strandveld, with a small portion of semi-intact vegetation and even smaller portion of intact vegetation.  With the implementation of the “Preferred Alternative” a 40m no-go area along the north western border of the site, measuring approximately 2.7ha in total, will be kept as a buffer zone to the relatively intact vegetation that is present on the Eskom servitude immediately north of this buffer area. The remaining sections of indigenous vegetation will be cleared to accommodate the housing development.  *Given the above, Listing Notice 1 Activity 27 and Listing Notice 3 Activity 12 of the NEMA EIA Regulations 2014, relating to the clearance of indigenous vegetation will be triggered by the proposed housing development.* | Development |

**Waste management activities** in terms of the NEM: WA (GN No. 921):

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| --- | --- | --- |
| Category A  Listed Activity No(s): | Describe the relevant Category A waste management activity in writing as per GN No. 921 | Describe the portion of the development that relates to the applicable listed activity as per the project description |
| **Not applicable** | | |

**Note:** If any waste management activities are applicable, the **Listed Waste Management Activities Additional Information Annexure** must be completed and attached to this Basic Assessment Report as **Appendix I.**

**Atmospheric emission activities** in terms of the NEM: AQA (GN No. 893):

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| --- | --- | --- |
| Listed Activity No(s): | Describe the relevant atmospheric emission activity in writing as per GN No. 893 | Describe the portion of the development that relates to the applicable listed activity as per the project description. |
| **Not applicable** | | |

(e) Provide details of all components (including associated structures and infrastructure) of the proposed development and attach diagrams (*e.g.,* architectural drawings or perspectives, engineering drawings, process flowcharts, *etc*.).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Buildings  Provide brief description below: | | YES | | NO | |
| In terms of housing typologies, the image below illustrates the typical housing typologies, erf sizes and dimensions proposed for the development.    In terms of residential distribution, only approximately 5% is proposed to be GAP housing and the rest subsidised housing. The GAP units are located towards the eastern part of the site, closer to Blue Downs way and all along Blue Downs way due to the existing middle to higher income residential area in this location. The northern part of the site is proposed to be subsidised units, but only semi-detached to create a lower density in this area adjacent to the established residential area to the north. This area can then also in future accommodate GAP housing units if there is an increased demand for this type of housing.  The following table indicates the non-residential land uses which are proposed as part of the development:    The distribution and location of the schools allows for easy access to all the residents. The sport field will be a community sport field and are located in the centre of the development and on the main access roads to improve access to the residents of the proposed development as well as to the surrounding communities. The Primary School to the south of the sport field will share the sport facilities and are therefore reduced in size to allow only for the school buildings. This sharing of facilities are proposed in order to reduce costs and land area and in turn increase the densities which allows for the much needed increase in residential opportunities.  Seven local nodes is provided and distributed as such so that it is easily accessible to all residents. These local nodes consist of a cluster of erven allocated for a public open space (from 653² – 1 495m²), crèche / ECD (from 620² – 1 509m²) and a place of worship (from 657² – 1 504m²).  The layout also makes provision for one electrical substation in the south-eastern part of the site as required by the Electrical Engineers. The mini-substation positions will only be determined at the detail design stage.  The civil Engineers calculated the stormwater run-off and required a total of four detention ponds to be provided. One in the south-western corner, one a bit to the north adjacent to the western boundary and the other two on the eastern boundary adjacent to Blue Downs Road. The total size of the detention ponds is 2,67ha.  The road hierarchy as determined by the City’s Transport department in consultation with the consultant project Engineers is 18m, 16m, 12m, 10m and 8m. There are five access roads which forms the main internal movement system. These roads vary between 18m, 16m and 12m. The rest of the lower order internal roads are 10m and 8m. The 8m roads are only located at the GAP units as these erven are big enough to accommodate on-site parking. The subsidy erven does not accommodate on-site parking but only parking in the courtyards and on-street. For this reason the road reserve widths are 10m to allow for parking on one side of the road. | | | | | |
| Infrastructure (*e.g.,* roads, power and water supply/ storage)  Provide brief description below: | | YES | | NO | |
| |  | | --- | | ***Refer to Civil Engineering Report, Nadeson Consulting Services, October 2018 as included in Appendix G*** | | ***Refer to draft Traffic Impact Assessment Report by Sturgeon Consulting Engineers, October 2018 as included in Appendix G*** |   TRAFFIC IMPACTS  The report investigates the transport implications of the proposed Blueberry Hill residential development in Blue Downs. It summarises the existing transportation conditions within the site vicinity, provides an assessment of the transportation impacts of the proposed development on the surrounding road network, and recommendations regarding improvements to mitigate negative impacts where necessary.  The main findings and conclusions are:   * The proposed Blueberry Hill development will be on Erf 1901, Blue Downs. The site is located between Eersriv Way and Blue Downs Way and directly north of Forest Drive. * The proposed development will comprise 3 932 Residential Units (797 Subsidy Single Storey units, 2 909 Subsidy Double Storey units and 226 GAP Housing units), Places of Worship, Crèche, Primary School, Secondary School and General   Business.   * The impact of the development has been assessed during the weekday AM and PM peak periods of operation. * Spine Road and Eersriv Way carries medium to high traffic volumes during the AM and PM peak hours. * Forest Drive carries low to medium traffic volumes during the AM and PM peak hours. * Blue Downs Way carries medium to high traffic volumes during the AM and PM peak hours. * A growth rate of 5.0% per annum was used for the 1 to 5-year design horizon and 2.5% per annum was used for the 5 to 10 year design horizon. * Access to the proposed development will be from Eersriv Way, Forest Drive and Blue Downs Way. * The development has the potential to generate 1 510 trips during the AM peak hour (505 in and 1005 out) and 1 290 trips during the PM peak hour (841 in and 449 out). * The Sidra analyses of the existing 2018 traffic operations indicated that the Spine Road/Old Faure Road and Blue Downs Way/Hindle Road/Raymond Ackerman Avenue intersections are currently operating at unacceptable levels of service (LOS F) during both the AM and PM peak hours. The remaining study intersections operate at acceptable levels of service. * The duelling of Eersriv Way between Old Faure Road and Washington Street is currently under construction and is assumed for completion before 2023, detailed design being undertaken from Lukhozi Consulting Engineers and proposed layouts have been taken into account for the start of 2023. * For the background 2023 traffic volume analysis, the duelling of Spine Road / Eersriv Way was taken into consideration. This includes the construction of roundabouts at the Eersriv Way / Mfuleni Road / London Way, Eersriv Way / Forest Drive and Spine Road / Old Faure Road intersections. The Sidra results indicate that all the study intersections will operate at acceptable levels of service for the AM and PM peak hours. * For the total 2028 traffic volume analyses, various improvements are required to ensure that all study intersections operate at acceptable levels of service. * Forest Drive / Blue Downs Way: upgrade to a two-lane roundabout. * Blue Downs Way / Hindle Road / Mars Street: upgrade to a two-lane roundabout with additional lanes on each approach. * The geometry of each site access is as follow:   + Entrance 1: The Eersriv Way / Entrance 1 Access should be constructed as a left-in, left-out access only.   + Entrance 2: The Forest Drive / Entrance 2 access should be upgraded to a roundabout intersection.   + Entrance 3: Entrance 3 on Blue Downs Way is proposed as a two-lane entrance (one lane in each direction) with stop control along Entrance 3.   + Entrance 4: Entrance 4 on Blue Downs Way is proposed as a two-lane entrance (one lane in each direction) with stop control along Entrance 4.   + Entrance 5: Entrance 5 on Blue Downs Way is proposed as a two-lane entrance (one lane in each direction) with stop control along Entrance 5. * A link analysis of the road network for the 2023 and 2028 traffic scenarios were undertaken. The results indicate that the southbound leg of Spine Road operates near capacity during the AM peak hour and the eastbound leg of Forest Drive will operate over capacity (east of Eersriv Way) and near capacity (west of Blue Downs Way) during the PM peak hour for the 2028 scenario. * The proposed development is well located within a network of public transport routes and the future MyCiti trunk route along Hindle Road. * A portion of the Development Contributions should be used for the upgrading of bicycle lanes and/or sidewalks in the vicinity of the site along the main arterials that traverse the proposed development, where necessary. * Parking should be provided in accordance with the specified guidelines. * Adequate pedestrian and cycle facilities to be provided along the internal roads, where necessary. * Several principles for the provision of public transport facilities and accommodation of pedestrians have been included in the report to guide and assist in the provision.   From the report, the following are recommended:   * That the Forest Drive/ Blue Downs Way/ Bobs Way intersection is upgraded to a two-lane roundabout with widening at all approaches. * The Blue Downs Way/ Hindle Road/ Mars Street (Raymond Ackerman Ave) is upgraded to a two-lane roundabout with widening on all approaches to accommodate additional lanes. * The Eersriv Way/ Entrance 1 intersection becomes a left-in, left-out (LILO) only and the median break is closed. * The Forest Drive/ Entrance 2 intersection is upgraded to roundabout with an inscribed diameter of at least 32m. * The detail design of all the accesses to the Blueberry Hill development must be approved by the relevant road authority. * A portion of the development contributions should be used for the upgrading/construction of bicycle lanes and/or sidewalks in the vicinity of the development. This should be approved/confirmed by the CoCT’s TDA: Head of   Universal Access & Non-Motorised Transport.  This report has shown that the proposed development can be accommodated by the adjacent transport network, provided the recommendations presented in the report are implemented. From a traffic engineering perspective, the application for this development is supported.  STORMWATER MANAGEMENT  Proposed Stormwater Drainage Plan  Provision of stormwater infrastructure will adhere to the CoCT Minimum Standards for  Roads and Stormwater Design and will include relevant guidelines as specified in the drainage manual and red book.  Stormwater for the development will be managed on a catchment-wide basis taking into account the surrounding built and natural environment. Stormwater infrastructure proposed for the site will comprise of both overland drainage on surfaced roads and underground pipe systems.  1. Minor system  All streets in the development will be designed to act as stormwater collectors and conveyors. To achieve this, the low side of the streets will be placed below the natural ground level to receive stormwater runoff from contributing catchments. The roads will have catch pits incorporated on the lower edges for stormwater to drain into buried pipe systems. The stormwater conveyed in the pipes will run through the site and will discharge into acceptable receiving bodies such as open fields, attenuation ponds and existing stormwater networks.  This system will be limited to cater for the minor storm events only. The network will be sized to accommodate a 2 year flood recurrence interval. In this scheme road networks will not be allowed to flood.  2. Major system  For Major storms events, the road networks (i.e. within road reserve boundaries) together with the underground stormwater pipes will be designed to accommodate a 50 year flood recurrence interval. The maximum stormwater carrying capacity of the roads will be utilised. Excess runoff from the major storm event, which will be conveyed within the roadway, will be allowed to reach a maximum height of 150mm above the highest point.  Under such conditions, inconvenience to residents is acceptable but access by emergency vehicles should not be completely hindered. Discharge points will be free draining.  Conditions will also be checked for the 1:100 year event to assess the risk of building floor levels being flooded. Floor levels will be a minimum 300mm above the 1:100 flood line.  Public open spaces will be utilised in overland hydraulic routes where possible. This will promote ground water infiltration, which effectively increases the time of concentration thus reducing the impact of concentrated flow at the discharge points.  3. Design Guidelines  Computation of stormwater quantities will be based on the rational method as described in the drainage manual. The storm intensity will be determined using IDF curves obtained from the most suitable rainfall monitoring station. Design criteria recommend for the stormwater pipe network is specified in Table 6-1. A concept stormwater design for the development is given in Annexure B.  *Refer to Table 6-1, p.14 of the Civil Engineering Report.*  Stormwater management post development  Post development runoff will not exceed the pre-development runoff. Stormwater storage facilities will be incorporated and will be designed to restrict the runoff from developments where the post-development runoff exceeds that of the pre-development.  SEWERAGE  Existing bulk and link sewer infrastructure  Investigation of the existing bulk sewerage infrastructure was carried out by the CoCT (see report in Annexure C).  1. Network  According to the above mentioned report the nearest existing sewer line is a 250mm gravity collector located west of the development along Eersriv Way. In their analysis all of the sewerage generated from the development drains into this line.  Results indicated that portion of this line will have insufficient capacity to accommodate the sewerage flows generated from the proposed development. Subsequently, it was recommended that this line be upgraded to the point where it becomes 900mm in diameter. This amounts to a pipe length of roughly 240m.  However, it is believed that further discussion with CoCT of their findings might be required. Based on the natural ground conditions a significant portion of the site will not drain into the 250mm diameter line. This may result in the line having sufficient capacity to accommodate the contributing portion of the development.  2. Wastewater treatment works  The estimated average flow (excluding peak and stormwater ingress) from the completed development is 1.75 Ml/d. The proposed development will ultimately drain to the Zandvliet Wastewater Treatment Works (WWTW). This treatment plant is currently overloaded and cannot accommodate the development at present.  However, the Zandvliet WWTW is in the process if being upgraded. The estimated completion date for the capacity upgrade is end 2021 at the earliest. The proposed development will only be allowed to discharge into the municipal sewage system once the capacity upgrade of the Zandvliet WWTW has been completed.  Based on an estimated programme, complied by CSM Consulting services, construction of the civil engineering components for the development will reach completion by August 2022 at the soonest. This indicates that the upgrades to the Zandvliet WWTW will be completed well before the beneficiaries can take occupancy of their homes.  Internal sewer reticulation  1. Estimated Sewer Flows  The Peak Wet Weather Flow (PWWF) for the proposed development amounts to approximately 64.6 l/s. The derivation of this value is given below.  QPWWF  = No. Units x Flow X PF x EF = 64.61l/s  24 x 60 x 60  Where:   * QPWWF = Instantaneous Peak Wet Weather Flow (l/s) * No. Units = 3 882 * Flow (average flow per family) = 500 l/day * Peak Factor (PF) = 2.5 * Extraneous Flows (EF) = 15%   The proposed discharge (per dwelling category), used in estimation of total sewer flows is in line with the red book. The peak factor used to determine the instantaneous peak flows is in accordance with Figure C1 of the same publication. An allowance of 15% was estimated for stormwater infiltration.  2. Proposed Internal Sewer Infrastructure  Water borne sewerage systems are proposed for the intended development. Sewer lines will be laid to conform to a street front system and will be taken into the courtyards. The sewers will be sized by taking the design guidelines shown in Table 8-1 into consideration and using the flows as indicated in section 8.2.1.  Each stand in the development will be provided with a single connection to the sewer system. A concept design of the sewerage scheme for the development is bound into  Annexure B of this report.  *Refer to Table 8-1 of the Civil Engineering Report as attached in Appendix G of this report.*  WATER  Existing bulk and link water services  A bulk water analysis of the existing infrastructure was carried out by the CoCT (see  Annexure C). According to their findings the bulk supply system has sufficient water resources, treatment, storage and conveyance capacity to supply the estimated annual average daily demand of the proposed development.  An existing 250mm main line, west of the development along Eersriv Way, supplies the area with a peak head of 72m at a velocity of 1.1m/s. The additional peak demand from the development will result in an unacceptable high velocity of roughly 3.9m/s in the line. It was recommended that this line be upgraded to prevent such high flow velocities.  Furthermore, the report highlighted the likelihood of pressure management being implemented by the CoCT in the area of interest.  Internal water reticulation  1. Estimated Water Flows  The proposed demand (per dwelling category) used to estimate the total water flows for the development is as specified in the red book.  An Annual Average Daily Demand (AADD) of 650 l/day/erf was used. In order to simulate peak flow trends of the population, the AADD of the entire development must be multiplied by a Peak Factor. By utilising a Peak Factor of 4, in accordance with Figure 9.11 of the red book, the instantaneous peak flow (peak AADD) amounts to roughly 117 l/s. The derivation of this value is given below.  QPAADD = No. Units x AADD x PF = 117l/s  24 x 60 x 60  Where:   * QPAADD = Instantaneous Peak Average Annual Daily Demand (l/s) * No. Units = 3 882 * Average Annual Daily Demand (AADD) = 650 l/day * Peak Factor (PF) = 4   The development is considered to fall within the low risk group 1 fire category based on red book standards. As a result the minimum fire flow requirement is 15 l/s at a 7m residual pressure head.  **2. Proposed Internal Water Infrastructure**  The internal water distribution networks for the proposed development will be designed in accordance with the red book.  The water networks will be sized by taking the design guidelines shown in Table 7-1 into consideration and using the flows described in section 7.2.1.  Each stand in the development will be given a connection to the networks main line and provision will be made for metering. Installation of the meters will be included under the top structure contract.  *Refer to Table 7-1, p.16 of the Civil Engineering Report as included in* ***Appendix G****.*  Solid Waste Removal  **CAPACITY TO COLLECT**  The service provider in the Hillcrest Area has no objection to the proposed development.  There is sufficient unallocated capacity to accept, collect and dispose of all types of waste to a designated licence landfill site.  It is envisioned that solid waste will be collected at roadsides in wheelie-bins by self-compacting refuse vehicles (see confirmation letter attached in Annexure C).  BULK POWER SUPPLY  Based on the assumed number of erven, the estimated electrical load is of the order of 8,0MVA.  Eskom who are the electrical supply authority for the area have confirmed that a bulk electrical supply of sufficient capacity for the development is available at the existing Greysands Substation located on the western boundary of the development.  Eskom will however need to construct a brick-built switching station within the development area and therefore the allowance of a 436 square metre site as per the drawing extract below.    The switching station and all 11kV cabling to the switching station with be built, equipped and installed by Eskom.  The cost associated with this bulk supply will be recovered via the shared network services costs (bulk development levies) payable to Eskom by the Developer.  **Concept and scope**  The concept and scope of the electrical reticulation and street lighting installation is based on:   * Total number of residential units : Between 3000 and 3500 * Design requirements of Eskom for an underground electrical distribution system. * After diversity maximum demand of 2,5kVA * Primary 11kV switching station and cabling: by Eskom as per clause 2 above. * Secondary 11kV cable installation along underground cables from the Switching Station to local 11kV/400V miniature substations. * 11kV/400V miniature substations. * Low voltage reticulation from the miniature substations to distribution kiosks along underground cables with aluminium conductors. * Distribution kiosks * Consumer supplies from the distribution kiosks to individual single residential erven. * Street lighting consisting of light fittings mounted on steel poles in accordance with the City * of Cape Town: Public Lighting requirements * Current prices as at September 2018 * The scope and assumptions as specified above are regarded as fair and realistic for the purposes of this estimate, but it is pointed out that there is an element of risk associated with it, therefore the inclusion of the contingency allowance in the estimate. * The following is specifically excluded from the estimate (and is deemed to be supplied and * installed by others): * Electrical installations inside the houses * kWh meters: Budget energy controllers installed in individual houses. * Sleeves and manholes * Telephone network cabling and hardware * - Escalation from date of estimate. | | | | | |
| Processing activities (*e.g.,* manufacturing, storage, distribution)  Provide brief description below: | | YES | | NO | |
| Not applicable – this development does not entail any manufacturing, storage or distribution. | | | | | |
| Storage facilities for raw materials and products (*e.g.,* volume and substances to be stored)  Provide brief description below: | | YES | | NO | |
| Not applicable – this development does not entail the storage of raw materials | | | | | |
| Storage and treatment facilities for effluent, wastewater or sewage:  Provide brief description below: | | YES | | NO | |
| Not applicable – this development does not include the storage and treatment of effluent, wastewater or sewage. | | | | | |
| Storage and treatment of solid waste  Provide brief description below: | YES | | **NO** | | |
| Not applicable – this development does not include the storage and treatment of solid waste. | | | | | |
| Facilities associated with the release of emissions or pollution.  Provide brief description below: | YES | | | | **NO** |
| Not applicable – this development does not include facilities which are associated with emissions or pollution. | | | | | |
| Other activities (*e.g.,* water abstraction activities, crop planting activities) –  Provide brief description below: | | YES | | NO | |
| Not applicable – this development does not include any other activities such as water abstraction or crop planting etc. | | | | | |

1. **Physical size of the PROPOSED DEVELOPMENT**

|  |  |  |
| --- | --- | --- |
| (a) Property size(s): Indicate the size of all the properties (cadastral units) on which the development proposal is to be undertaken | ± 830 000 | m2 |
| (b) Size of the facility: Indicate the size of the facility where the development proposal is to be undertaken | ± 830 000 | m2 |
| (c) Development footprint: Indicate the area that will be physically altered as a result of undertaking any development proposal (*i.e.,* the physical size of the development together with all its associated structures and infrastructure) | Preferred Alternative = ± 830 000 | m2 |
| (d) Size of the activity: Indicate the physical size (footprint) of the development proposal | Preferred Alternative = ±789 100 | m2 |
| (e) For linear development proposals: Indicate the length (L) and width (W) of the development proposal **N?A** | (L) | m | |
| (W) | m | |
| (f) For storage facilities: Indicate the volume of the storage facility **N/A** |  | m3 |
| (g) For sewage/effluent treatment facilities: Indicate the volume of the facility  (Note: the maximum design capacity must be indicated **N/A** |  | m3 |

**4. Site Access**

|  |  |  |
| --- | --- | --- |
| (a) Is there an existing access road? | YES | NO |
| (b) If no, what is the distance in (m) over which a new access road will be built? | m | |
| (c) Describe the type of access road planned: | | |
| ***Traffic Impacts***   * Access to the proposed development will be from Eersriv Way, Forest Drive and Blue Downs Way. * The geometry of each site access is as follow:   + Entrance 1: The Eersriv Way / Entrance 1 Access should be constructed as a left-in, left-out access only.   + Entrance 2: The Forest Drive / Entrance 2 access should be upgraded to a roundabout intersection.   + Entrance 3: Entrance 3 on Blue Downs Way is proposed as a two-lane entrance (one lane in each direction) with stop control along Entrance 3.   + Entrance 4: Entrance 4 on Blue Downs Way is proposed as a two-lane entrance (one lane in each direction) with stop control along Entrance 4.   + Entrance 5: Entrance 5 on Blue Downs Way is proposed as a two-lane entrance (one lane in each direction) with stop control along Entrance 5.   From the report, the following are recommended:   * That the Forest Drive/ Blue Downs Way/ Bobs Way intersection is upgraded to a two-lane roundabout with widening at all approaches. * The Blue Downs Way/ Hindle Road/ Mars Street (Raymond Ackerman Ave) is upgraded to a two-lane roundabout with widening on all approaches to accommodate additional lanes. * The Eersriv Way/ Entrance 1 intersection becomes a left-in, left-out (LILO) only and the median break is closed. * The Forest Drive/ Entrance 2 intersection is upgraded to roundabout with an inscribed diameter of at least 32m. * The detail design of all the accesses to the Blueberry Hill development must be approved by the relevant road authority. * A portion of the development contributions should be used for the upgrading/construction of bicycle lanes and/or sidewalks in the vicinity of the development. This should be approved/confirmed by the CoCT’s TDA: Head of   Universal Access & Non-Motorised Transport.  This report has shown that the proposed development can be accommodated by the adjacent transport network, provided the recommendations presented in the report are implemented. From a traffic engineering perspective, the application for this development is supported. | | |
| Please note: The position of the proposed access road must be indicated on the site plan. | | |

**5. DESCRIPTION OF THE PROPERTY(IES) ON WHICH THE LISTED Activity(IES) ARE TO BE UNDERTAKEN AND THE LOCATION OF THE LISTED ACTIVITY(IES) ON THE PROPERTY**

* 1. Provide a description of the property on which the listed activity(ies) is/are to be undertaken and the location of the listed activity(ies) on the property, as well as of all alternative properties and locations (duplicate section below as required).

|  |
| --- |
| The proposed residential development will be located on the remained of Erf 1901, Blue Downs, measuring approximately 8.3 Ha in extent. The site is generally referred to as Blueberry Hill.  From a metropolitan perspective the property is located ±30km southeast of the Cape Town CBD and ±20km northeast of the Strand.  In a local context the site is located north of the N2 and east of the R300, between Eersteriver and Blue Downs Way and directly north of Forrest Drive.  The property is largely undeveloped with the exception of a section of housing on Erf 358 and a few housing units on Stemberry Road.  According to the Civil Engineering Scoping report (Nadeson, March 2018) the site is divided by a watershed that runs from a high point close to the northern boundary of the site with falls in the region of 2.5%. The site however also has sections of undulating terrain that create localised low points.    According to Mucina and Rutherford’s Vegetation Map of South Africa, Lesotho and Swaziland, the site falls within an area where Swartland Shale Renosterveld and Cape Flats Dune Strandveld are the predominant indigenous vegetation types which is endemic to the area. These are thus likely to occur on any untransformed land in the area.  **Figure 1: Location of Erf 1901, Blue Downs (Google Earth)**  **View 2005_GE_23_05_2018**  ***Refer to locality and site maps as included in Appendix A.*** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Main coordinates of the property: | **Latitude (S):** (deg.; min.; sec) | | | **Longitude (E):** (deg.; min.; sec) | | |
| * North-eastern corner | o | ‘ | “ | o | ‘ | “ |
| * North-western corner | o | ‘ | “ | o | ‘ | “ |
| * South-eastern corner | o | ‘ | “ | o | ‘ | “ |
| * North-eastern corner |  |  |  |  |  |  |

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**Figure 2: Aerial view of site coordinates. (Google Earth)**

**Note**: For land where the property has not been defined, the coordinates of the area within which the development is proposed must be provided in an addendum to this report.

* 1. Provide a description of the area where the aquatic or ocean-based activity(ies) is/are to be undertaken and the location of the activity(ies) and alternative sites (if applicable).

|  |
| --- |
| **N/A** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Coordinates of the boundary /perimeter of all proposed aquatic or ocean-based activities (sites) (if applicable): | **Latitude (S):** (deg.; min.; sec) | | | **Longitude (E):** (deg.; min.; sec) | | |
| **°** | **'** | **"** | **o** | **'** | **"** |
| **°** | **'** | **"** | **o** | **'** | **"** |
| **°** | **'** | **"** | **o** | **'** | **"** |
| **°** | **'** | **"** | **o** | **'** | **"** |

5.3 For a linear development proposal, please provide a description and coordinates of the corridor in which the proposed development will be undertaken (if applicable).

|  |
| --- |
| **N/A** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| For linear activities: | **Latitude (S):** (deg.; min.; sec) | | | **Longitude (E):** (deg.; min.; sec) | | |
| * Starting point of the activity | o | ‘ | “ | o | ‘ | “ |
| * Middle point of the activity | o | ‘ | “ | o | ‘ | “ |
| * End point of the activity | o | ‘ | “ | o | ‘ | “ |

**Note**: For linear development proposals longer than 1 000m, please provide an addendum with co-ordinates taken every 250m along the route. All important waypoints must be indicated and the GIS shape file provided digitally.

5.4 Provide a location map (see below) as **Appendix A** to this report that shows the location of the proposed development and associated structures and infrastructure on the property; as well as a detailed site development plan / site map (see below) as **Appendix B** to this report; and if applicable, all alternative properties and locations. The GIS shape files (.shp) for maps / site development plans must be included in the electronic copy of the report submitted to the competent authority.

|  |  |
| --- | --- |
| Locality Map: | The scale of the locality map must be at least 1:50 000.  For linear development proposals of more than 25 kilometres, a smaller scale *e.g.*, 1:250 000 can be used. The scale must be indicated on the map.  The map must indicate the following:   * an accurate indication of the project site position as well as the positions of the alternative sites, if any; * road names or numbers of all the major roads as well as the roads that provide access to the site(s) * a north arrow; * a legend; * a linear scale; * the prevailing wind direction (during November to April and during May to October); and * GPS co-ordinates (to indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).   For an ocean-based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken.  Coordinates must be provided in degrees, minutes and seconds using the Hartebeesthoek94; WGS84 co-ordinate system. |

|  |  |
| --- | --- |
| Site Plan: | Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following:   * The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be indicated on the plan, preferably together with a linear scale. * The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. * The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be indicated on the site plan. * The position of each element of the application as well as any other structures on the site must be indicated on the site plan. * Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the development must be indicated on the site plan. * Servitudes and an indication of the purpose of each servitude must be indicated on the site plan. * Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to):   + Watercourses / Rivers / Wetlands - including the 32 meter set back line from the edge of the bank of a river/stream/wetland;   + Flood lines (*i.e.,* 1:100 year, 1:50 year and 1:10 year where applicable;   + Ridges;   + Cultural and historical features;   + Areas with indigenous vegetation (even if degraded or infested with alien species). * Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. * North arrow   A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.  The GIS shape file for the site development plan(s) must be submitted digitally. |

1. **Site photographs**

Colour photographs of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached as **Appendix C** to this report. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.

**SECTION B: DESCRIPTION OF THE RECEIVING ENVIRONMENT**

**Site/Area Description**

For linear development proposals (pipelines, *etc*.) as well as development proposals that cover very large sites, it may be necessary to complete copies of this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area that is covered by each copy on the Site Plan.

1. GRADIENT OF THE SITE

Indicate the general gradient of the sites (highlight the appropriate box).

|  |  |  |  |
| --- | --- | --- | --- |
| Flat | **Flatter than 1:10** | 1:10 – 1:4 | Steeper than 1:4 |

**2. location in landscape**

1. Indicate the landform(s) that best describes the site (highlight the appropriate box(es).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Ridgeline | Plateau | Side slope of  hill / mountain | Closed valley | Open valley | Plain | Undulating plain/low hills | **Dune** | Sea-front |

(b) Provide a description of the location in the landscape.

|  |
| --- |
| The surrounding area is typically characterised by undulating Aeolian sand dune topography predominantly consisting of longitudinal dune structures. The site consists of a dome-shaped, sand covered hill. It is inferred that levelling of the former sand dune topography may have taken place over large parts of the site. The sand cover on the site is stabilised by vegetation growth, however, alien vegetation appears to have been constantly removed from the site.    **Figure 3: Aerial view showing the extent and dome shape of the site (Geotechnical Investigation Report June 2018, SRK Consulting)** |

**3. GroundwateR, Soil and Geological stability of the site**

(a) Is the site(s) located on or near any of the following (highlight the appropriate boxes)?

|  |  |  |  |
| --- | --- | --- | --- |
| Shallow water table (less than 1.5m deep) | YES | **NO** | UNSURE |
| Seasonally wet soils (often close to water bodies) | **YES** | NO | UNSURE |
| Unstable rocky slopes or steep slopes with loose soil | YES | **NO** | UNSURE |
| Dispersive soils (soils that dissolve in water) | YES | **NO** | UNSURE |
| Soils with high clay content | YES | **NO** | UNSURE |
| Any other unstable soil or geological feature | **YES**  **Refer to description in (c) below** | NO | UNSURE |
| An area sensitive to erosion | YES | NO | UNSURE |
| An area adjacent to or above an aquifer. | YES | **NO** | UNSURE |
| An area within 100m of a source of surface water | YES | **NO** | UNSURE |
| An area within 500m of a wetland | YES | **NO** | UNSURE |
| An area within the 1:50 year flood zone | YES | **NO** | UNSURE |
| A water source subject to tidal influence | YES | **NO** | UNSURE |

(b) If any of the answers to the above is “YES” or “UNSURE”, specialist input may be requested by the Department.

(Information in respect of the above will often be available at the planning sections of local authorities. The 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

1. Indicate the type of geological formation underlying the site.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Granite | Shale | **Sandstone** | Quartzite | Dolomite | Dolorite | Other (describe) |
| Provide a description. | | | | | | |
| The site is underlain by a relatively thick sequence of Aeolian sand. The consistency of the upper approximately 0.45 m of the profile is very loose to loose and is unsuitable as a founding horizon and the whole site will have to be compacted in situ using a heavy vibratory roller.   * Some areas were identified to have deeper loose soil profiles (based on DPL test results) and in these areas (and any other areas identified to have deeper loose soils), it will be necessary to remove about 0.5 m of the sand to stockpile. The surface must then be compacted in situ using a heavy vibratory roller and the stockpiled soil brought back and compacted in layers up to the required levels. * The fine to medium Aeolian sand will compact easily, and 100% Mod AASHTO density can be readily achieved. * No water table was encountered within a depth of 2.0 m below surface (but this must be monitored at the time of construction). | | | | | | |

**4. SURFACE WATER**

1. Indicate the surface water present on and or adjacent to the site and alternative sites (highlight the appropriate boxes)?

|  |  |  |  |
| --- | --- | --- | --- |
| Perennial River | YES | **NO** | UNSURE |
| Non-Perennial River | YES | **NO** | UNSURE |
| Permanent Wetland | YES | **NO** | UNSURE |
| Seasonal Wetland | YES | **NO** | UNSURE |
| Artificial Wetland | YES | **NO** | UNSURE |
| Estuarine / Lagoon | YES | **NO** | UNSURE |

1. Provide a description.

|  |
| --- |
| The June 2018 freshwater site scan by the Freshwater Consulting Group (FCG) concluded that the areas mapped as wetlands on the site by the City of Cape Town's Wetlands Map (highlighted in green in the map in **Figure 7** below) are NOT wetlands and that the areas we identified (in blue) as potential wetlands are not naturally-occurring wetlands.  A possible dune slack wetland area was observed along a short section of the north-western boundary of the site, extending from the servitude on the outside of that boundary.  The FCG were consequently appointed to conduct a scan of the portion of the Eskom servitude and N7 Road Reserve located along the north-western boundary of the site. The purpose of this site scan was to confirm whether any wetlands are present in the dune slack areas within the corridor of undeveloped land along the north-western boundary of the site.  The overall conclusion of the follow-up investigation and assessment of the servitude was that there are no wetlands associated with the dune slack areas in the portion of the Eskom servitude and N7 Road Reserve situated along the north-western boundary of the proposed development site.  As such, no wetlands have been identified on or immediately adjacent to Erf 1901. |

1. **the seafront / SEA**

(a) Is the site(s) located within any of the following areas? (highlight the appropriate boxes).

If the site or alternative site is closer than 100m to such an area, please provide the approximate distance in (m).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **AREA** | **YES** | **NO** | **UNSURE** | **If “YES”: Distance to nearest area (m)** |
| An area within 100m of the high water mark of the sea | YES | **NO** | UNSURE |  |
| An area within 100m of the high water mark of an estuary/lagoon | YES | **NO** | UNSURE |  |
| An area within the littoral active zone | YES | **NO** | UNSURE |  |
| An area in the coastal public property | YES | **NO** | UNSURE |  |
| Major anthropogenic structures | YES | **NO** | UNSURE |  |
| An area within a Coastal Protection Zone | YES | **NO** | UNSURE |  |
| An area seaward of the coastal management line | YES | **NO** | UNSURE |  |
| An area within the high risk zone (20 years) | YES | **NO** | UNSURE |  |
| An area within the medium risk zone (50 years) | YES | **NO** | UNSURE |  |
| An area within the low risk zone (100 years) | YES | **NO** | UNSURE |  |
| An area below the 5m contour | YES | **NO** | UNSURE |  |
| An area within 1km from the high water mark of the sea | YES | **NO** | UNSURE |  |
| A rocky beach | YES | **NO** | UNSURE |  |
| A sandy beach | YES | **NO** | UNSURE |  |

(b) If any of the answers to the above is “YES” or “UNSURE”, specialist input may be requested by the Department. (The 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

**6. BIODIVERSITY**

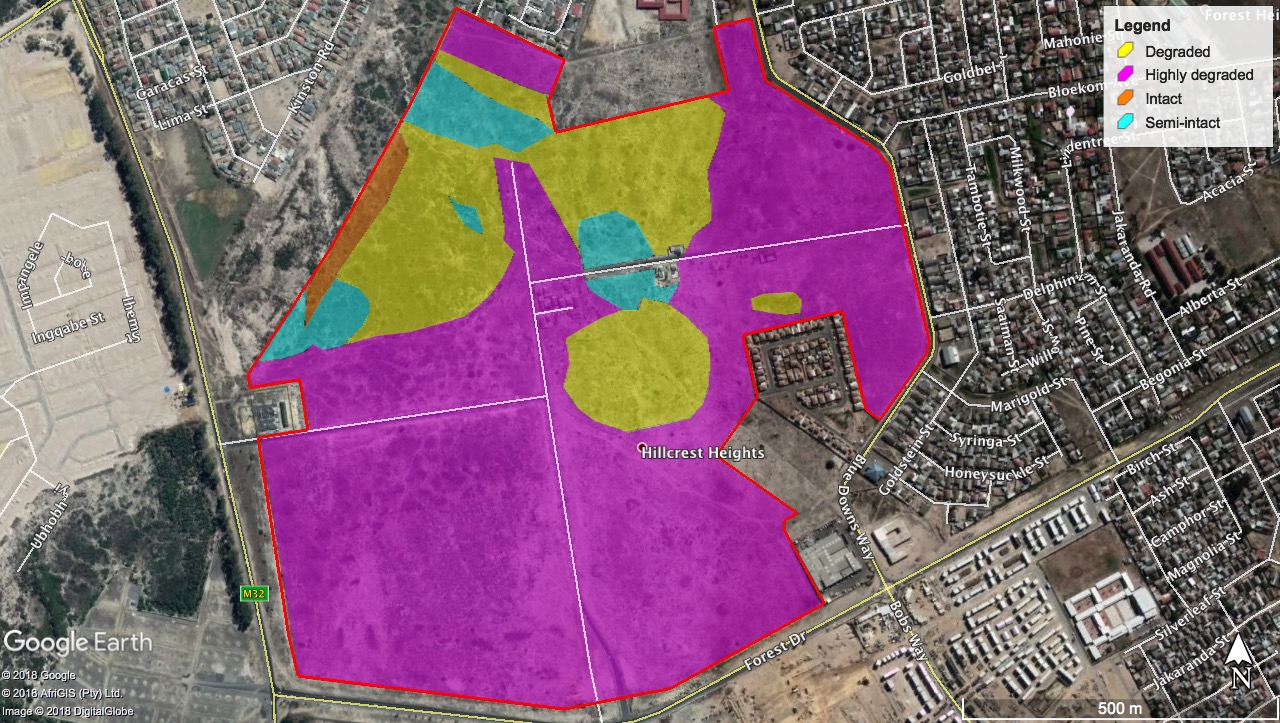
**Note:** The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed development. To assist with the identification of the biodiversity occurring on site and the ecosystem status, consult <http://bgis.sanbi.org> or [BGIShelp@sanbi.org](mailto:BGIShelp@sanbi.org) . Information is also available on compact disc (“cd”) from the Biodiversity-GIS Unit, Tel.: (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP’s responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) must be provided as an overlay map on the property/site plan as **Appendix** **D** to this report.

1. Highlight the applicable biodiversity planning categories of all areas on preferred and alternative sites and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category. Also describe the prevailing level of protection of the Critical Biodiversity Area (“CBA”) and Ecological Support Area (“ESA”) (how many hectares / what percentages are formally protected).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Systematic Biodiversity Planning Category  Not applicable – refer to section below | CBA | ESA | Other Natural Area (“ONA”) | No Natural Area Remaining (“NNR”) |
| If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan and the conservation management objectives | N/A | | | |
| Describe the site’s CBA/ESA quantitative values (hectares/percentage) in relation to the prevailing level of protection of CBA and ESA (how many hectares / what percentages are formally protected locally and in the province) | N/A | | | |
| When viewed in relation to the City of Cape Town Biodiversity Network (BioNet) (Holmes and Pugnalin, 2016) the most up to date GIS (Geographical Information System) shapefiles (City of Cape Town, 2017) indicate that the study area does not fall within the conservation planning framework (Figure 3).    Figure 3. CONSERVATION MAP: The study area in relation to the 2017 Western Cape Biodiversity Spatial Plan Framework (CapeNature, 2017) overlaid on a Google Earth aerial image. | | | | |

1. Highlight and describe the habitat condition on site.

|  |  |  |  |
| --- | --- | --- | --- |
| Habitat Condition | Percentage of habitat condition class (adding up to 100%) and area of each in square metre (m2) | | Description and additional comments and observations (including additional insight into condition, *e.g.* poor land management practises, presence of quarries, grazing/harvesting regimes, *etc.*) |
| Natural | 3% | m2 |  |
| Near Natural  (includes areas with low to moderate level of alien invasive plants) | 7% | m2 |  |
| Degraded  (includes areas heavily invaded by alien plants) | 10% | m2 |  |
| Transformed  (includes cultivation, dams, urban, plantation, roads, *etc.*) | 70% | m2 | A high level of disturbance was noted, as was recorded by Helme (2008). Most of the site has been subjected to a high degree of disturbance in the form of surface levelling, invasive alien plants (grasses and shrubs), illegal dumping, sand mining and grazing (cattle). The least disturbed areas support a mix of habitat condition types, including intact, semi-intact and degraded vegetation. |

**

**Figure 4** HABITAT MAP: Google EarthTM satellite image with the habitat types superimposed.

(c) Complete the table to indicate:

(i) the type of vegetation present on the site, including its ecosystem status; and

(ii) whether an aquatic ecosystem is present on/or adjacent to the site.

|  |  |  |
| --- | --- | --- |
| Terrestrial Ecosystems | | Description of Ecosystem, Vegetation Type, Original Extent, Threshold (ha, %), Ecosystem Status |
| Ecosystem threat status as per the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) | Critically | The List of Threatened Terrestrial Ecosystems (Government Gazette, 2011) lists Cape Flats Dune Strandveld as an ENDANGERED vegetation type (or ecosystem) Swartland Shale Renosterveld as CRITICALLY ENDANGERED. Cape Flats Dune Strandveld, which probably covered the entire site in the past, is poorly protected, with only 25% of the national conservation target being formally protected (Maree, 2014). The original extent of the ecosystem was 41 947 ha. |
| Endangered | The List of Threatened Terrestrial Ecosystems (Government Gazette, 2011) lists Cape Flats Dune Strandveld as an ENDANGERED vegetation type (or ecosystem) Swartland Shale Renosterveld as CRITICALLY ENDANGERED. Cape Flats Dune Strandveld, which probably covered the entire site in the past, is poorly protected, with only 25% of the national conservation target being formally protected (Maree, 2014). The original extent of the ecosystem was 41 947 ha. |
| Vulnerable |  |
| Least Threatened |  |
|  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Aquatic Ecosystems | | | | | | |
| Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands) | | | Estuary | | Coastline | |
|
|
|
| YES | NO | UNSURE | YES | NO | YES | NO |

1. Provide a description of the vegetation type and/or aquatic ecosystem present on the site, including any important biodiversity features/information identified on the site (e.g. threatened species and special habitats). Clearly describe the biodiversity targets and management objectives in this regard.

|  |
| --- |
| **Freshwater**  The June 2018 freshwater site scan by the Freshwater Consulting Group (FCG) concluded that the areas mapped as wetlands on the site by the City of Cape Town's Wetlands Map (highlighted in green in the map in **Figure 7** below) are NOT wetlands and that the areas we identified (in blue) as potential wetlands are not naturally-occurring wetlands.  A possible dune slack wetland area was observed along a short section of the north-western boundary of the site, extending from the servitude on the outside of that boundary.  The FCG were consequently appointed to conduct a scan of the portion of the Eskom servitude and N7 Road Reserve located along the north-western boundary of the site. The purpose of this site scan was to confirm whether any wetlands are present in the dune slack areas within the corridor of undeveloped land along the north-western boundary of the site.  The overall conclusion of the follow-up investigation and assessment of the servitude was that there are no wetlands associated with the dune slack areas in the portion of the Eskom servitude and N7 Road Reserve situated along the north-western boundary of the proposed development site.  As such, no wetlands have been identified on or immediately adjacent to Erf 1901.  **Botanical**  The findings of this study show that the study area supports about 40 ha of mostly degraded but ENDANGERED Cape Flats Dune Strandveld, with a small portion of semi-intact vegetation and even smaller portion of intact vegetation. The question, within the context of the proposed development, is whether or not the remnant vegetation should be conserved and restored in the perpetuity. Two options were considered in this regard. The first option that was given consideration was to set aside a representative sample vegetation in the north-western sector of the site. Although some of the remaining areas of the site support patches of natural vegetation, they are regarded as being of poor ecological condition as well as occurring where long-term protection is not viable since the disturbance regime is high. Consideration was thus given to conserve this portion since it is representative sample of habitat and fortuitously happens to abut the Eskom servitude that contains ecologically intact vegetation and a remnant dune system that links natural areas to the north and south. This first option is problematic from a development point of view since the project, by virtue of being a low-cost housing development, seeks to maximize all of the available space provided by the undeveloped land. A second option was thus considered that places greater emphasis on protecting the Eskom servitude. The second option takes into consideration (a) the dire need to service the needs of communities with housing versus (b) a responsibility to ensure persistence of critical habitats. Consideration is given to rather protecting the Eskom servitude with an ecological buffer. It is emphasized that from a botanical perspective the No-Go buffer area is not sustainable without the long-term protection of the Eskom servitude since the intention is to buffer the existing ecological link formed by the servitude (maintaining the spatial ecological link between the CBAs to the north and south). The recommended 40 m wide buffer area is indicated in Figure 18B. This area should be protected from dumping and general disturbance in the event of the development being approved. |

**7. Land use of the site**

**Note:** The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed development.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Untransformed area** | Low density residential | **Medium density residential** | High density residential | Informal residential |
| Retail | Commercial & warehousing | Light industrial | Medium industrial | Heavy industrial |
| **Power station** | Office/consulting room | Military or police base/station/compound | Casino/entertainment complex | Tourism and Hospitality facility |
| Open cast mine | Underground mine | Spoil heap or slimes dam | Quarry, sand or borrow pit | Dam or reservoir |
| Hospital/medical centre | School | Tertiary education facility | Church | Old age home |
| Sewage treatment plant | Train station or shunting yard | Railway line | Major road (4 lanes and more) | Airport |
| Harbour | Sport facilities | Golf course | Polo fields | Filling station |
| Landfill or waste treatment site | Plantation | Agriculture | River, stream or wetland | Nature conservation area |
| Mountain, koppie or ridge | Museum | Historical building | Graveyard | Archaeological site |
| Other land uses (describe): |  | | | |

1. Provide a description.

|  |
| --- |
| The site is largely undeveloped, except for housing on Erf 358 and a few isolated formal houses along Stemberry Road. The site is serviced by roads around the perimeter of the site, as well as a number of paved internal roads, which cut across the site.  **\\192.168.0.253\data\jobs\SEC Jobs\018021\Maps and Photos\Site coordinates.jpg**  **Figure 5 Aerial view of site, Erf 1901, showing internal roads and residential development on Erf 358** |

**8. Land use character of THE surrounding area**

1. Highlight the current land uses and/or prominent features that occur within +/- 500m radius of the site and neighbouring properties if these are located beyond 500m of the site.

**Note:** The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed development.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Untransformed area | Low density residential | **Medium density residential** | **High density residential** | **Informal residential** |
| Retail | Commercial & warehousing | Light industrial | Medium industrial | Heavy industrial |
| Power station | Office/consulting room | Military or police base/station/compound | Casino/entertainment complex | Tourism and Hospitality facility |
| Open cast mine | Underground mine | Spoil heap or slimes dam | Quarry, sand or borrow pit | Dam or reservoir |
| Hospital/medical centre | School | Tertiary education facility | Church | Old age home |
| Sewage treatment plant | Train station or shunting yard | Railway line | Major road (4 lanes and more) | Airport |
| Harbour | Sport facilities | Golf course | Polo fields | Filling station |
| **Landfill or waste treatment site** | Plantation | Agriculture | River, stream or wetland | Nature conservation area |
| Mountain, koppie or ridge | Museum | Historical building | Graveyard | Archaeological site |
| Other land uses (describe): |  | | | |

1. Provide a description, including the distance and direction to the nearest residential area, industrial area, agri-industrial area.

|  |
| --- |
| Erf 1901 is located in Blue Downs on the Cape Flats, City of Cape Town (**Figure 6**).  The study area (or ‘site’) is located on the north side of Forest Drive, on the east side of Eersriv Way (M32) and on the west side of Blue Downs Way. The 80 ha site consists of undeveloped land surrounded by urban development on the northern and eastern sides. An Eskom servitude with natural dune systems forms the north-western boundary whereas the southern boundary is formed by the Faure Landfill and residential construction site (**Figure 6**).    Figure 6 Google Earth image of site. (Western Cape Department of Agriculture |

9. SOCIO-ECONOMIC ASPECTS

1. Describe the existing social and economic characteristics of the community in the vicinity of the proposed site, in order to provide baseline information (for example, population characteristics/demographics, level of education, the level of employment and unemployment in the area, available work force, seasonal migration patterns, major economic activities in the local municipality, gender aspects that might be of relevance to this project, *etc.*).

|  |
| --- |
| **Subcouncil 22 consists of four wards and encompasses the areas of Kuils River, Blackheath, Kleinvlei, Malibu Village, Blue Downs, Eerste River and Mfuleni.** |
| |  |  | | --- | --- | | **Blue Downs – Key Socio-economic Characteristics** | | | Total population | 92,330 | | Young (0-14) | 28,7% | | Working Age (15-64) | 68,7% | | Elderly (65+) | 2,6% | | Dependency ratio | 45,5 | | Sex ratio | 96 | | Population density | 3 758 persons/km2 | | No schooling aged 20+ | 1,8% | | Higher education aged 20+ | 7,9% | | Matric aged 20+ | 30,2% | |
| |  |  | | --- | --- | | Number of households | 22,162 | | Average household size | 4,1 | | Female headed households | 34,4% | | Formal dwellings | 76,8% | | Housing owned/paying off | 66,7% | | Flush toilet connected to sewerage | 94,3% | | Weekly refuse removal | 98,9% | | Piped water inside dwelling | 74,9% | | Electricity for lighting | 97% |   Umtha Strategy Planning and Development has been appointed by COCT Human Settlement Implementation as Beneficiary Administration and Social Facilitators for the Blueberry Hill housing project.  Umtha is responsible for the effective coordination and management of effective and transparent public participation and socio-economic concerns related to the project such as housing beneficiary management and job creation during the project.  As part of Umtha’s scope of work in this project the following duties will be undertaken:  **Beneficiary Administrator**   * Identify potential beneficiaries in terms of the City’s allocation policy with relevant stakeholders under guidance of the City’s Project Management and external Project Manager. * HSS Subsidy Registration and capture of beneficiaries * As well as other related tasks in completing the above   **Social/Community Facilitator**   * Will form part of the project steering committee and be the liaison person between project matters and the community * Ensure effective public participation and transparency regarding beneficiary administration including preparation of public meetings etc.   Once the initial beneficiary meetings and public meetings, as specified above have been undertaken, there will be a clearer indication of the more detailed and specific socio-economic impacts and concerns.  As such the current pre-application BAR at this stage contains only general socio-economic impacts and an assessment of these. A detailed socio-economic impact assessment will be undertaken in the final BAR, once the most pertinent socio-economic impacts and concerns have come to light and mitigation measures have been identified.  *Umtha Strategy Planning and Development has been appointed by COCT Human Settlement Implementation as Beneficiary Administration and Social Facilitators for the Blueberry Hill housing project.*  *Umtha is responsible for the effective coordination and management of effective and transparent public participation and socio-economic concerns related to the project such as housing beneficiary management and job creation during the project.*  *As part of Umtha’s scope of work in this project the following duties will be undertaken:*  ***Beneficiary Administrator***   * *Identify potential beneficiaries in terms of the City’s allocation policy with relevant stakeholders under guidance of the City’s Project Management and external Project Manager.* * *HSS Subsidy Registration and capture of beneficiaries* * *As well as other related tasks in completing the above*   ***Social/Community Facilitator***   * *Will form part of the project steering committee and be the liaison person between project matters and the community* * *Ensure effective public participation and transparency regarding beneficiary administration including preparation of public meetings etc.*   *Up to date Umtha has /////*  *Once the initial beneficiary meetings and public meetings, as specified above have been undertaken, there will be a clearer indication of the more detailed and specific socio-economic impacts and concerns.*  *As such the current pre-application BAR at this stage contains only general socio-economic impacts and an assessment of these. A detailed socio-economic impact assessment will be undertaken in the final BAR, once the most pertinent socio-economic impacts and concerns have come to light and mitigation measures have been identified.* |

10. HISTORICAL AND Cultural ASPECTS

1. Please be advised that if section 38 of the NHRA is applicable to your proposed development, you are requested to furnish this Department with written comment from Heritage Western Cape as part of your public participation process. Heritage Western Cape must be given an opportunity, together with the rest of the I&APs, to comment on any Pre-application BAR, a Draft BAR, and Revised BAR.

Section 38 of the NHRA states the following:

“*38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as‑*

*(a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*

*(b) the construction of a bridge or similar structure exceeding 50m in length;*

*(c) any development or other activity which will change the character of a site‑*

*(i) exceeding 5 000m2 in extent; or*

*(ii) involving three or more existing erven or subdivisions thereof; or*

*(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or*

*(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources*

*authority;*

*(d) the re‑zoning of a site exceeding 10 000m2 in extent; or*

*(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,*

*must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development”.*

1. The impact on any national estate referred to in section 3(2), excluding the national estate contemplated in section 3(2)(i)(vi) and (vii), of the NHRA, must also be investigated, assessed and evaluated. Section 3(2) states the following:

“*3(2) Without limiting the generality of subsection (1), the national estate may include—*

*(a) places, buildings, structures and equipment of cultural significance;*

*(b) places to which oral traditions are attached or which are associated with living heritage;*

*(c) historical settlements and townscapes;*

*(d) landscapes and natural features of cultural significance;*

*(e) geological sites of scientific or cultural importance;*

*(f) archaeological and palaeontological sites;*

*(g) graves and burial grounds, including—*

*(i) ancestral graves;*

*(ii) royal graves and graves of traditional leaders;*

*(iii) graves of victims of conflict;*

*(iv) graves of individuals designated by the Minister by notice in the Gazette;*

*(v) historical graves and cemeteries; and*

*(vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);*

*(h) sites of significance relating to the history of slavery in South Africa;*

*(i) movable objects, including—*

*(i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;*

*(ii) objects to which oral traditions are attached or which are associated with living heritage;*

*(iii) ethnographic art and objects;*

*(iv) military objects;*

*(v) objects of decorative or fine art;*

*(vi) objects of scientific or technological interest; and*

*(vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996)”.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Is Section 38 of the NHRA applicable to the proposed development? | | YES | NO | UNCERTAIN |
| If YES or UNCERTAIN, explain: |  | | | |
| Will the development impact on any national estate referred to in Section 3(2) of the NHRA? | | YES | NO | UNCERTAIN |
| If YES or UNCERTAIN, explain: |  | | | |
| Will any building or structure older than 60 years be affected in any way? | | YES | NO | UNCERTAIN |
| If YES or UNCERTAIN, explain: |  | | | |
| Are there any signs of culturally or historically significant elements, as defined in section 2 of the NHRA, including Archaeological or paleontological sites, on or close (within 20m) to the site? | | YES | NO | UNCERTAIN |
| If YES or UNCERTAIN, explain: | *The 1940 Topographical Map (****Figure 6*** *in NID report) shows the study area to be open land, with the Eerste Rivier Forest Reserve located to the north-west and Kleinvlei Farm to the east. There are references to the establishment of the beacons for the Forest Reserve by 1913. However, between 1917 and 1933, portions of the Eerste River Forest Reserve were being disposed for land settlement, specifically “proposed Coloured settlement on Cape Flats” (KAB ACLT\_751\_9704\_1). The subdivision of the Klein Vlei Farm, to the east of Blueberry Hill, commenced in the 1950s.*  *According to the Heritage Notice of Intent to Develop (Lita Webley, May 2018) only isolated patches of the original Cape Flats landscape occur in the area, as for example the Driftsands Nature Reserve to the west of the study area. It indicates the desolate wilderness that separated the City from the hinterland, and posed such an obstacle for hundreds of years.*  *By 1960, the general area had acquired the name of Blue Downs, and a collection of buildings, called Hindle Farm, are located on the eastern perimeter. Government records note that sewer reticulation to Blue Downs occurred with effect 1987.*  *According to the Surveyor General (SG 10086-86), Erf 1901 Blue Downs, originally comprised Portion 13 (a portion of portion 7) of the farm Eersriv No 981. An earlier SG map (SG 1656/72) dating to 1972, shows the subdivision of the farm. It was bordered on the east by the farm Klein Vlei No 461, the farm Driftsands No 544 to the east, the farms Bardale No 451 and Wimbledon No 454 to the north-west and north-east respectively.*  *In 1980, the Topographical Map still shows no development on the property, with Hindle and Bella Vista indicated on the eastern perimeter, and a row of trees following Eerste River Way, and crossing the property. The current outline of the area, Blueberry Hill, is shown on the 1990 topographical map. This map confirms that there are no buildings on the property, with the exception of those on Erf 15571 which do not form part of the current proposals (2005 Google Earth image of Erf 1901).*  ***Archaeological Aspects***  *In their 2011 assessment of an area 1km to the north of the proposed Blueberry Hill Development, Webley & Avery noted that very little pre-colonial archaeological material has been found in this part of the Cape Flats. Similarly, the survey by Hart (2009) of the Driftsands area (3km to the west), also found no archaeological remains. A number of surveys by Orton (2004, 2006, 2007) in the Eerste River and Kuils River areas failed to identify any archaeological material. Although early records have discussed so-called “Cape Flats” sites, these have proven to be remarkably elusive, and it seems unlikely that any concentrations of artefacts will be found in the study area. A specialist archaeological assessment will not be necessary.*  ***Palaeontology Aspects***  *Dr G Avery has commented on the proposed Blueberry Hill Housing Development in the attached letter (****Appendix 2 of NID report)****.*  *Referring to the preliminary geo-tech assessment, which indicates relatively shallow (probably Witzand Formation) cover sands becoming decomposed clayey Malmesbury over deeper Malmesbury substrate. He notes "the area skirts higher ground comprising Malmesbury soil/rocks and is at the easternmost extent of the Cape Flats dune plume. Late Pleistocene and earlier deposits, which may include palaeontological material, are normally deeper and much closer to the coast.*  *The Malmesbury derived soils are unlikely to include palaeontological material.*  *Foundations for housing developments are normally not deep and, apart from, and probably including, deeper infrastructure, unlikely to encounter palaeo material.*  *It is very unlikely that palaeontological material will be encountered and, should this prove not to be the case, the EMP could provide the necessary protocols.*  *He concludes that a “PIA will not be necessary".*  *The SAHRIS Palaeosensitivity map confirms that the proposed site and the Sir Lowry’s Pass in its entirety is of zero palaeontological sensitivity.*  ***Graves***  *There are no formally proclaimed cemeteries in this area. However, there is always a possibility that an unmarked illegal or historic grave could occur.*  ***Living Heritage***  *The very low vegetation on the property, comprising mainly ankle high grasses, and the absence of any indigenous vegetation – makes it very unlikely that the study area has been used for traditional or ritual purposes. There are no plants to use for medicinal purposes and no secluded areas for traditional purposes such as the Xhosa circumcision ceremony.*  ***Heritage Summary and Recommendations***  *The proposed residential development on Erf 1901, Blue Downs will not result in any significant impacts to heritage resources.*  *As such we recommend that no further heritage-related studies are required in relation to the proposed development of Blueberry Hill on Erf 1901, Blue Downs.*  *The NID was submitted to HWC and a response was received from HWC, as included in* ***Appendix G,*** *confirming that no further work is required in terms of heritage impacts.*  *A NID was submitted to HWC and HWC responded confirming that no further heritage work is required, HWC response included in* ***Appendix G.*** | | | |
| Note: If uncertain, the Department may request that specialist input be provided and Heritage Western Cape must provide comment on this aspect of the proposal. (Please note that a copy of the comments obtained from the Heritage Resources Authority must be appended to this report as Appendix E1). | | | | |

11. APPLICABLE LEGISLATION, POLICIES, CIRCULARS AND/OR GUIDELINES

1. Identify all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to the development proposal and associated listed activity(ies) being applied for and that have been considered in the preparation of the BAR.

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| **LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS** | **ADMINISTERING AUTHORITY**  **and how it is relevant to this application** | **TYPE**  **Permit/license/authorisation/comment / relevant consideration** (*e.g.* rezoning or consent use, building plan approval, Water Use License and/or General Authorisation, License in terms of the SAHRA and CARA, coastal discharge permit, *etc.*) | **DATE**  (if already obtained)**:** | | |
| National Environmental Management Act, 1998 (Act No.107 of 1998) [NEMA] | Department of Environmental Affairs and Development Planning (DEA&DP) | Environmental Authorisation | Pending | | |
| National Heritage Resources Act, 1999 (Act No. 25 of 1999) | Heritage Western Cape | Comment Received | 22 June 2018 | | |
| City of Cape Town Municipal Planning By-Law, 2015 | City of Cape Town Municipality | * Consolidation; * Rezoning of the subject properties to a Sub divisional Area overlay zone; * Subdivision of the Sub divisional Area Overlay Zone to allow for the following land uses / zonings:   + Single residential 1;   + Community zoning 1;   + Local Business zoning 2;   + General Business zoning 1;   + Utility zoning;   + Transport zoning 2;   + Open Space zoning 1: Environmental Conservation   + Open Space zoning 2. * Permanent departures; * Phased subdivision; and * Approval of street names. | | Pending |

1. Describe how the proposed development **complies with and responds** to the legislation and policy context, plans, guidelines, spatial tools, municipal development planning frameworks and instruments.

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| **LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS** | **Describe how the proposed development complies with and responds:** |
| NEMA | Application is being made for Environmental Authorisation under the NEMA EIA Regulations 2014 following a Basic Assessment Process |
| EIA Guideline and Information Document Series, March 2013 | The following guidelines were consulted during the Basic Assessment process:   * Guideline on EIA Requirements * Guideline on Alternatives * Guideline on PPP * Guideline on Need and Desirability * Guideline on Involving Specialists in EIA Process * Guideline on EMPr |
| National Heritage Resources Act, 1999 (Act No.25 of 19999) | A NID was submitted to HWC by Lita Webley. A comment was received from HWC on 20 June 2018 as included in **Appendix G** |
| City of Cape Town Municipal Planning By-Law, 2015 | * Consolidation; * Rezoning of the subject properties to a Sub divisional Area overlay zone; * Subdivision of the Sub divisional Area Overlay Zone to allow for the following land uses / zonings:   + Single residential 1;   + Community zoning 1;   + Local Business zoning 2;   + General Business zoning 1;   + Utility zoning;   + Transport zoning 2;   + Open Space zoning 1: Environmental Conservation   + Open Space zoning 2. * Permanent departures; * Phased subdivision; and * Approval of street names. |

**Note:** Copies of any comments, permit(s) or licences received from any other Organ of State must be attached to this report as **Appendix E**.

**Section C: public participation**

The PPP must fulfil the requirements outlined in the NEMA, the EIA Regulations, 2014 (as amended) and if applicable, the NEM: WA and/or the NEM: AQA. This Department’s Circular EADP 0028/2014 (dated 9 December 2014) on the “One Environmental Management System” and the EIA Regulations, any subsequent Circulars, and guidelines must also be taken into account.

1. Please highlight the appropriate box to indicate whether the specific requirement was undertaken or whether there was an exemption applied for.

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| In terms of Regulation 41 of the EIA Regulations, 2014 (as amended) - | | | | | | |
| (a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of - | | | | | | |
| (i) the site where the activity to which the application relates, is or is to be undertaken; and | **YES** | EXEMPTION | | | | |
| (ii) any alternative site | YES | EXEMPTION | | | | **N/A** |
| (b) giving written notice, in any manner provided for in Section 47D of the NEMA, to – | | | | | | |
| (i) the occupiers of the site and, if the applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken; | **YES** | | EXEMPTION | | N/A | |
| (ii) owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken; | **YES** | | EXEMPTION | | | |
| (iii) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area; | **YES** | | EXEMPTION | | | |
| (iv) the municipality (Local and District Municipality) which has jurisdiction in the area; | **YES** | | EXEMPTION | | | |
| (v) any organ of state having jurisdiction in respect of any aspect of the activity; and | **YES** | | EXEMPTION | | | |
| (vi) any other party as required by the Department; | **YES** | | EXEMPTION | | N/A | |
| (c) placing an advertisement in - | | | | | | |
| (i) one local newspaper; or | **YES** | | EXEMPTION | | | |
| (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations; | YES | | EXEMPTION | | **N/A** | |
| (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken | YES | | EXEMPTION | | **N/A** | |
| (e) using reasonable alternative methods, as agreed to by the Department, in those instances where a person is desirous of but unable to participate in the process due to—  (i) illiteracy;  (ii) disability; or  (iii) any other disadvantage. | YES | | EXEMPTION | | **N/A** | |
| **If you have indicated that “EXEMPTION” is applicable to any of the above, proof of the exemption decision must be appended to this report.** | | | | | | |
| Please note that for the NEM: WA and NEM: AQA, a notice must be placed in at least two newspapers circulating in the area where the activity applied for is proposed. | | | | | | |
| If applicable, has/will an advertisement be placed in at least two newspapers? | YES | | | NO | | |
| If “NO”, then proof of the exemption decision must be appended to this report. | | | | | | |

1. Provide a list of all the State Departments and Organs of State that were consulted:

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| --- | --- | --- | --- |
| **State Department / Organ of State** | **Date request**  **was sent:** | **Date comment received:** | **Support / not in support** |
| Cape Nature | Pre-App BAR to be sent to department for comment |  |  |
| DEA&DP Development Management | Same as above |  |  |
| City of Cape Town Environmental and Heritage Resource Management | Same as above |  |  |
| Department of Water and Sanitation | Same as above |  |  |
| Heritage Western Cape | 11 June 2018 | 20 June 2018 | In support |

1. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated, or the reasons for not including them.

(The detailed outcomes of this process, including copies of the supporting documents and inputs must be included in a Comments and Response Report to be attached to the BAR (see note below) as **Appendix F**).

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| The Pre-Application BAR will now be circulated. All issues raised and comments received will be included in the BA report that will be circulated for a second round of public participation. |

1. Provide a summary of any conditional aspects identified / highlighted by any Organs of State, which have jurisdiction in respect of any aspect of the relevant activity.

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| All conditional aspects identified or highlighted in the Pre-Application BAR PPP will be included in the BA report that will be circulated for a second PPP. |

**Note:**

Even if pre-application public participation is undertaken as allowed for by Regulation 40(3), it must be undertaken in accordance with the requirements set out in Regulations 3(3), 3(4), 3(8), 7(2), 7(5), 19, 40, 41, 42, 43 and 44.

If the “exemption” option is selected above and no proof of the exemption decision is attached to this BAR, the application will be refused.

A list of all the potential I&APs, including the Organs of State, notified and a list of all the registered I&APs must be submitted with the BAR. The list of registered I&APs must be opened, maintained and made available to any person requesting access to the register in writing.

The BAR must be submitted to the Department when being made available to I&APs, including the relevant Organs of State and State Departments which have jurisdiction with regard to any aspect of the activity, for a commenting period of at least 30 days. Unless agreement to the contrary has been reached between the Competent Authority and the EAP, the EAP will be responsible for the consultation with the relevant State Departments in terms of Section 24O and Regulation 7(2) – which consultation must happen simultaneously with the consultation with the I&APs and other Organs of State.

All the comments received from I&APs on the BAR must be recorded, responded to and included in the Comments and Responses Report included as Appendix F of the BAR. If necessary, any amendments made in response to comments received must be effected in the BAR itself. The Comments and Responses Report must also include a description of the PPP followed.

The minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded, must also be submitted as part of the public participation information to be attached to the final BAR as **Appendix F.**

Proofof all the notices given as indicated, as well as notice to I&APs of the availability of the Pre-Application BAR (if applicable), Draft BAR, and Revised BAR (if applicable) must be submitted as part of the public participation information to be attached to the BAR as **Appendix F**. In terms of the required “proof” the following must be submitted to the Department:

* a site map showing where the site notice was displayed, a dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
* in terms of the written notices given, a copy of the written notice sent, as well as:
  + if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
  + if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
  + if a facsimile was sent, a copy of the facsimile report;
  + if an electronic mail was sent, a copy of the electronic mail sent; and
  + if a “mail drop” was done, a signed register of “mail drops” received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
* a copy of the newspaper advertisement (“newspaper clipping”) that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

**Section D: NEED AND DESIRABILITY**

**Note:** Before completing this section, first consult this Department’s Circular EADP 0028/2014 (dated 9 December 2014) on the “One Environmental Management System” and the EIA Regulations, 2014 (as amended), any subsequent Circulars, and guidelines available on the Department’s website: [**http://www.westerncape.gov.za/eadp**](http://www.westerncape.gov.za/eadp)). In this regard, it must be noted that the *Guideline on Need and Desirability in terms of the Environmental Impact Assessment (EIA) Regulations, 2010* published by the national Department of Environmental Affairs on 20 October 2014 (GN No. 891 on Government Gazette No. 38108 refers) (available at: <http://www.gov.za/sites/www.gov.za/files/38108__891.pdf>) also applied to EIAs in terms of the EIA Regulations, 2014 (as amended).

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| 1. Is the development permitted in terms of the property’s existing land use rights? | YES | NO | Please explain |
| City of Cape Town Municipal Planning By-Law, 2015   * Consolidation; * Rezoning of the subject properties to a Sub divisional Area overlay zone; * Subdivision of the Sub divisional Area Overlay Zone to allow for the following land uses / zonings:   + Single residential 1;   + Community zoning 1;   + Local Business zoning 2;   + General Business zoning 1;   + Utility zoning;   + Transport zoning 2;   + Open Space zoning 1: Environmental Conservation   + Open Space zoning 2. * Permanent departures; * Phased subdivision; and * Approval of street names.   In addition to the above, and regardless of the fact that the site is not currently appropriately zoned for the proposed land use, the development is regarded to be in line with the surrounding land uses as the site is surrounded by residential land uses. | | | |
| 2. Will the development be in line with the following? | | | |
| (a) Provincial Spatial Development Framework (“PSDF”). | YES | NO | Please explain |
| The PSDF includes as one of the key goals the inclusion of sustainable development encompassing the integration of social, economic, and ecological factors into planning, decision making, and implementation so as to ensure that development serves present and future generations.  The proposed development addresses the dire need for housing within this specific region as well as within the broader Western Cape and is thus in line with the PSDF’s priority of socio-economic integrated development.  From a spatial planning perspective, it is intended by the PSDF that the broad spatial planning categories be refined at the detailed level by district and local SDFs which must be consistent with the policies and requirements of the PSDF. The PSDF also supports the spatial proposals of the MSDF. The proposed development adheres to these proposals.  According to PSDF: City of Cape Town Sprawl Threats Map the area is indicated as “Urban Development” and situated within a Combined Road / Rail Infrastructure Corridor. Therefore, the proposed development is in line with the PSDF. | | | |
| (b) Urban edge / edge of built environment for the area. | YES | NO | Please explain |
| Erf 1901, Blue Downs is located within the urban edge. | | | |
| 1. Integrated Development Plan and Spatial Development Framework of the Local Municipality (*e.g.,* would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?). | YES | NO | Please explain |
| The proposed development is in line with the City of Cape Town’s Integrated Development Plan (IDP) goal of “providing a housing market for which a specific need exists that has been neglected in the past, being the affordable market.” | | | |
| (d) An Environmental Management Framework (“EMF”) adopted by this Department. (*e.g.,* Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?) | YES | NO | Please explain |
| The Cape Town Bioregional Plan was adopted as City Policy in July 2015. It comprises a biodiversity profile for the bioregion, the Biodiversity Network and management guidelines.  When viewed in relation to the City of Cape Town Biodiversity Network (BioNet) (Holmes and Pugnalin, 2016) the most up to date GIS (Geographical Information System) shapefiles (City of Cape Town, 2017) indicate that the study area does not fall within the conservation planning framework | | | |
| 1. Any other Plans (*e.g.,* Integrated Waste Management Plan (for waste management activities), *etc.*)). | YES | NO | Please explain |
| **The City of Cape Town Urban Design Policy**  The Urban Design Policy was approved by the City of Cape Town in September 2013 to guide the design process and formulation of development proposals to make Cape Town safer, more prosperous and more inclusive.  The Urban Design Policy is guided by three overarching principles which inform nine objectives.  The proposed development layout was presented to the COCT internal branches and amendments have been made to the layout proposal where relevant in order to ensure the development proposal is in line with the above policy document.  **The City of Cape Town Densification Policy**  The Densification Policy was approved by the City of Cape Town in 2012 and developed a number of policy statements that should guide all density related land use decisions. The development proposal is for a high density residential development and as such will be in line with this policy.  **Khayelitsha, Mitchells Plain & Greater Blue Downs District Plan**  The proposed development is directly consistent with the Khayelitsha, Mitchells Plain & Greater Blue Downs  District Plan with specific reference to the following:  • The site is indicated for “new urban infill”.  • According to the Sub-District 9 plan the site is indicated for “potential medium density development” (average gross density of 25-40du/ha).  • The site is situated within the demarcated boundaries of the larger Blue Downs CBD area where “a mix of land uses should be considered (including higher density housing development)”. | | | |
| 3. Is the land use (associated with the project being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (in other words, is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)? | YES | NO | Please explain |
| The PSDF includes as one of the key goals the inclusion of sustainable development encompassing the integration of social, economic, and ecological factors into planning, decision making, and implementation so as to ensure that development serves present and future generations.  The proposed development addresses the dire need for housing within this specific region as well as within the broader Western Cape and is thus in line with the PSDF’s priority of socio-economic integrated development.  From a spatial planning perspective, it is intended by the PSDF that the broad spatial planning categories be refined at the detailed level by district and local SDFs which must be consistent with the policies and requirements of the PSDF. The PSDF also supports the spatial proposals of the MSDF. The proposed development adheres to these proposals.  According to PSDF: City of Cape Town Sprawl Threats Map the area is indicated as “Urban Development” and situated within a Combined Road / Rail Infrastructure Corridor. Therefore, the proposed development is in line with the PSDF.  The proposed development is in line with the City of Cape Town’s Integrated Development Plan (IDP) goal of “providing a housing market for which a specific need exists that has been neglected in the past, being the affordable market.” | | | |
| 4. Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur on the proposed site at this point in time? | YES | NO | Please explain |
| The proposed development site is located within the urban edge which implies that it is suitably located for urban land uses. | | | |
| 5. Does the community/area need the project and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (*e.g.,* development is a National Priority, but within a specific local context it could be inappropriate.) | YES | NO | Please explain |
| The proposed development addresses the dire need for housing within this specific region as well as within the broader Western Cape and is thus in line with the PSDF’s priority of socio-economic integrated development. | | | |
| 6. Are the necessary **services** available together with adequate unallocated municipal capacity (at the time of application), or must additional capacity be created to cater for the project? (Confirmation by the relevant municipality in this regard must be attached to the BAR as **Appendix E**.) | YES | NO | Please explain |
| Refer to Preliminary Engineering Report as included in Appendix G of this report.  In summary:  STORMWATER MANAGEMENT  Proposed Stormwater Drainage Plan  Provision of stormwater infrastructure will adhere to the CoCT Minimum Standards for Roads and Stormwater Design and will include relevant guidelines as specified in the drainage manual and red book.  Stormwater for the development will be managed on a catchment-wide basis taking into account the surrounding built and natural environment. Stormwater infrastructure proposed for the site will comprise of both overland drainage on surfaced roads and underground pipe systems.  1. Minor system  All streets in the development will be designed to act as stormwater collectors and conveyors. To achieve this, the low side of the streets will be placed below the natural ground level to receive stormwater runoff from contributing catchments. The roads will have catch pits incorporated on the lower edges for stormwater to drain into buried pipe systems. The stormwater conveyed in the pipes will run through the site and will discharge into acceptable receiving bodies such as open fields, attenuation ponds and existing stormwater networks.  This system will be limited to cater for the minor storm events only. The network will be sized to accommodate a 2 year flood recurrence interval. In this scheme road networks will not be allowed to flood.  2. Major system  For Major storms events, the road networks (i.e. within road reserve boundaries) together with the underground stormwater pipes will be designed to accommodate a 50 year flood recurrence interval. The maximum stormwater carrying capacity of the roads will be utilised. Excess runoff from the major storm event, which will be conveyed within the roadway, will be allowed to reach a maximum height of 150mm above the highest point.  Under such conditions, inconvenience to residents is acceptable but access by emergency vehicles should not be completely hindered. Discharge points will be free draining.  Conditions will also be checked for the 1:100 year event to assess the risk of building floor levels being flooded. Floor levels will be a minimum 300mm above the 1:100 flood line.  Public open spaces will be utilised in overland hydraulic routes where possible. This will promote ground water infiltration, which effectively increases the time of concentration thus reducing the impact of concentrated flow at the discharge points.  3. Design Guidelines  Computation of stormwater quantities will be based on the rational method as described in the drainage manual. The storm intensity will be determined using IDF curves obtained from the most suitable rainfall monitoring station. Design criteria recommend for the stormwater pipe network is specified in Table 6-1. A concept stormwater design for the development is given in Annexure B.  *Refer to Table 6-1, p.14 of the Civil Engineering Report.*  Stormwater management post development  Post development runoff will not exceed the pre-development runoff. Stormwater storage facilities will be incorporated and will be designed to restrict the runoff from developments where the post-development runoff exceeds that of the pre-development.  SEWERAGE  Existing bulk and link sewer infrastructure  Investigation of the existing bulk sewerage infrastructure was carried out by the CoCT (see report in Annexure C).  1. Network  According to the above mentioned report the nearest existing sewer line is a 250mm gravity collector located west of the development along Eersriv Way. In their analysis all of the sewerage generated from the development drains into this line.  Results indicated that portion of this line will have insufficient capacity to accommodate the sewerage flows generated from the proposed development. Subsequently, it was recommended that this line be upgraded to the point where it becomes 900mm in diameter. This amounts to a pipe length of roughly 240m.  However, it is believed that further discussion with CoCT of their findings might be required. Based on the natural ground conditions a significant portion of the site will not drain into the 250mm diameter line. This may result in the line having sufficient capacity to accommodate the contributing portion of the development.  2. Wastewater treatment works  The estimated average flow (excluding peak and stormwater ingress) from the completed development is 1.75 Ml/d. The proposed development will ultimately drain to the Zandvliet Wastewater Treatment Works (WWTW). This treatment plant is currently overloaded and cannot accommodate the development at present.  However, the Zandvliet WWTW is in the process if being upgraded. The estimated completion date for the capacity upgrade is end 2021 at the earliest. The proposed development will only be allowed to discharge into the municipal sewage system once the capacity upgrade of the Zandvliet WWTW has been completed.  Based on an estimated programme, complied by CSM Consulting services, construction of the civil engineering components for the development will reach completion by August 2022 at the soonest. This indicates that the upgrades to the Zandvliet WWTW will be completed well before the beneficiaries can take occupancy of their homes.  Internal sewer reticulation  1. Estimated Sewer Flows  The Peak Wet Weather Flow (PWWF) for the proposed development amounts to approximately 64.6 l/s. The derivation of this value is given below.  QPWWF  = No. Units x Flow X PF x EF = 64.61l/s  24 x 60 x 60  Where:   * QPWWF = Instantaneous Peak Wet Weather Flow (l/s) * No. Units = 3 882 * Flow (average flow per family) = 500 l/day * Peak Factor (PF) = 2.5 * Extraneous Flows (EF) = 15%   The proposed discharge (per dwelling category), used in estimation of total sewer flows is in line with the red book. The peak factor used to determine the instantaneous peak flows is in accordance with Figure C1 of the same publication. An allowance of 15% was estimated for stormwater infiltration.  2. Proposed Internal Sewer Infrastructure  Water borne sewerage systems are proposed for the intended development. Sewer lines will be laid to conform to a street front system and will be taken into the courtyards. The sewers will be sized by taking the design guidelines shown in Table 8-1 into consideration and using the flows as indicated in section 8.2.1.  Each stand in the development will be provided with a single connection to the sewer system. A concept design of the sewerage scheme for the development is bound into  Annexure B of this report.  *Refer to Table 8-1 of the Civil Engineering Report as attached in Appendix G of this report.*  WATER  Existing bulk and link water services  A bulk water analysis of the existing infrastructure was carried out by the CoCT (see  Annexure C). According to their findings the bulk supply system has sufficient water resources, treatment, storage and conveyance capacity to supply the estimated annual average daily demand of the proposed development.  An existing 250mm main line, west of the development along Eersriv Way, supplies the area with a peak head of 72m at a velocity of 1.1m/s. The additional peak demand from the development will result in an unacceptable high velocity of roughly 3.9m/s in the line. It was recommended that this line be upgraded to prevent such high flow velocities.  Furthermore, the report highlighted the likelihood of pressure management being implemented by the CoCT in the area of interest.  Internal water reticulation  1. Estimated Water Flows  The proposed demand (per dwelling category) used to estimate the total water flows for the development is as specified in the red book.  An Annual Average Daily Demand (AADD) of 650 l/day/erf was used. In order to simulate peak flow trends of the population, the AADD of the entire development must be multiplied by a Peak Factor. By utilising a Peak Factor of 4, in accordance with Figure 9.11 of the red book, the instantaneous peak flow (peak AADD) amounts to roughly 117 l/s. The derivation of this value is given below.  QPAADD = No. Units x AADD x PF = 117l/s  24 x 60 x 60  Where:   * QPAADD = Instantaneous Peak Average Annual Daily Demand (l/s) * No. Units = 3 882 * Average Annual Daily Demand (AADD) = 650 l/day * Peak Factor (PF) = 4   The development is considered to fall within the low risk group 1 fire category based on red book standards. As a result the minimum fire flow requirement is 15 l/s at a 7m residual pressure head.  **2. Proposed Internal Water Infrastructure**  The internal water distribution networks for the proposed development will be designed in accordance with the red book.  The water networks will be sized by taking the design guidelines shown in Table 7-1 into consideration and using the flows described in section 7.2.1.  Each stand in the development will be given a connection to the networks main line and provision will be made for metering. Installation of the meters will be included under the top structure contract.  *Refer to Table 7-1, p.16 of the Civil Engineering Report as included in* ***Appendix G****.*  SOLID WASTE REMOVAL  **Capacity to collect**  The service provider in the Hillcrest Area has no objection to the proposed development.  There is sufficient unallocated capacity to accept, collect and dispose of all types of waste to a designated licence landfill site.  It is envisioned that solid waste will be collected at roadsides in wheelie-bins by self-compacting refuse vehicles (see confirmation letter attached in **Annexure C**).  BULK POWER SUPPLY  Based on the assumed number of erven, the estimated electrical load is of the order of 8,0MVA.  Eskom who are the electrical supply authority for the area have confirmed that a bulk electrical supply of sufficient capacity for the development is available at the existing Greysands Substation located on the western boundary of the development.  Eskom will however need to construct a brick-built switching station within the development area and therefore the allowance of a 436 square metre site as per the drawing extract below.    The switching station and all 11kV cabling to the switching station with be built, equipped and installed by Eskom.  The cost associated with this bulk supply will be recovered via the shared network services costs (bulk development levies) payable to Eskom by the Developer. | | | |
| 7. Is this project provided for in the **infrastructure planning** of the municipality and if not, what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant municipality in this regard must be attached to the BAR as **Appendix E**.) | YES | NO | Please explain |
| Same as the above | | | |
| 8. Is this project part of a **national programme** to address an issue of national concern or importance? | YES | NO | Please explain |
|  | | | |
| 9. Do location factors favour this land use (associated with the development proposal and associated listed activity(ies) applied for) at this place? (This relates to the contextualisation of the proposed land use on the proposed site within its broader context.) | YES | NO | Please explain |
| Regardless of the fact that the site is not currently appropriately zoned for the proposed land use, the development is regarded to be in line with the surrounding land uses as the site is surrounded by residential land uses. | | | |
| 10. Will the development proposal or the land use associated with the development proposal applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)? | YES | NO | Please explain |
| **Ecological aspects**  **Freshwater**  The June 2018 freshwater site scan by the Freshwater Consulting Group (FCG) concluded that the areas mapped as wetlands on the site by the City of Cape Town's Wetlands Map (highlighted in green in the map in Figure 7 below) are NOT wetlands and that the areas we identified (in blue) as potential wetlands are not naturally-occurring wetlands.  A possible dune slack wetland area was observed along a short section of the north-western boundary of the site, extending from the servitude on the outside of that boundary.  The FCG were consequently appointed to conduct a scan of the portion of the Eskom servitude and N7 Road Reserve located along the north-western boundary of the site. The purpose of this site scan was to confirm whether any wetlands are present in the dune slack areas within the corridor of undeveloped land along the north-western boundary of the site.  The overall conclusion of the follow-up investigation and assessment of the servitude was that there are no wetlands associated with the dune slack areas in the portion of the Eskom servitude and N7 Road Reserve situated along the north-western boundary of the proposed development site.  As such, no wetlands have been identified on or immediately adjacent to Erf 1901.  **Botanical**  The findings of this study show that the study area supports about 40 ha of mostly degraded but ENDANGERED Cape Flats Dune Strandveld, with a small portion of semi-intact vegetation and even smaller portion of intact vegetation. The question, within the context of the proposed development, is whether or not the remnant vegetation should be conserved and restored in the perpetuity. Two options were considered in this regard. The first option that was given consideration was to set aside a representative sample vegetation in the north-western sector of the site. Although some of the remaining areas of the site support patches of natural vegetation, they are regarded as being of poor ecological condition as well as occurring where long-term protection is not viable since the disturbance regime is high. Consideration was thus given to conserve this portion since it is representative sample of habitat and fortuitously happens to abut the Eskom servitude that contains ecologically intact vegetation and a remnant dune system that links natural areas to the north and south. This first option is problematic from a development point of view since the project, by virtue of being a low-cost housing development, seeks to maximize all of the available space provided by the undeveloped land. A second option was thus considered that places greater emphasis on protecting the Eskom servitude. The second option takes into consideration (a) the dire need to service the needs of communities with housing versus (b) a responsibility to ensure persistence of critical habitats. Consideration is given to rather protecting the Eskom servitude with an ecological buffer. It is emphasized that from a botanical perspective the No-Go buffer area is not sustainable without the long-term protection of the Eskom servitude since the intention is to buffer the existing ecological link formed by the servitude (maintaining the spatial ecological link between the CBAs to the north and south). The recommended 40 m wide buffer area is indicated in Figure 18B. This area should be protected from dumping and general disturbance in the event of the development being approved.  **Historical aspects**    The proposed residential development on Erf 1901, Blue Downs will not result in any significant impacts to heritage resources.  As such we recommend that no further heritage-related studies are required in relation to the proposed development of Blueberry Hill on Erf 1901, Blue Downs.  The NID was submitted to HWC and a response was received from HWC, as included in **Appendix G,** confirming that no further work is required in terms of heritage impacts. | | | |
| 11. Will the development impact on people’s health and well-being (*e.g.,* in terms of noise, odours, visual character and ‘sense of place’*, etc.*)? | YES | NO | Please explain |
| Impacts on people’s health and well-being due to the proposed development are unlikely.  The construction phase will inevitably involve impacts in terms of noise, dust, visual, heritage and traffic. These impacts have however been assessed as part of this Basic and mitigation of these impacts have been addressed by means of the Environmental Management Programme (EMPr), included in Appendix H of this report.  POTENTIAL VISUAL IMPACTS  The proposed development will have potential visual impacts during the construction and operation phase of the development. The nature of the impact will be the visual effect the activity would have on the receiving environment. Construction phase:  • Visual scarring during the process of vegetation clearing and the dunes are levelled to prepare the area for development.  Operation Phase:  • Change from an undeveloped site to a developed site.  • The vacant site becoming a built site.  Although the change from a vacant site to a built-up site can be regarded as a visual impact, it must be noted that the site is currently somewhat visually unappealing given the illegal dumping, sand mining and cattle crazing that is undertaken on the site. It is also noted that the proposed housing development will be in line with the “sense of place” of the surrounding area, which includes residential uses varying from low to high density residential.  POTENTIAL HERITAGE IMPACTS  The proposed residential development on Erf 1901, Blue Downs will not result in any significant impacts to heritage resources.  As such we recommend that no further heritage-related studies are required in relation to the proposed development of Blueberry Hill on Erf 1901, Blue Downs.  The NID was submitted to HWC and a response was received from HWC, as included in **Appendix G,** confirming that no further work is required in terms of heritage impacts.  DUST AND NOISE IMPACTS  As a result of the construction phase of this development noise and dust impacts are expected to occur in the area due to an increase in construction vehicle and truck traffic for the duration of the construction phase while materials are being transported to the site, excavations are being made and vegetative groundcover is being removed  TRAFFIC, SAFETY AND ACCESS IMPACTS  As a result of the construction phase of this development traffic impacts are expected to occur in the area due to an increase in construction vehicle and truck traffic in the area for the duration of the construction phase while materials are being transported to the site. Road safety impacts and road condition impacts could also occur. | | | |
| 12. Will the proposed development or the land use associated with the proposed development applied for, result in unacceptable opportunity costs? | YES | NO | Please explain |
| The development will result in the permanent loss of endangered vegetation.  The Preferred Alternative however takes into consideration both socio-economic and ecological concerns.   1. The dire need to service the needs of communities with housing. 2. A responsibility to ensure persistence of critical habitats.   Considering the current housing demand and land invasion situation within the City of Cape Town, and social ills such as dumping and sand mining, the integrity of the small patches of intact vegetation on site cannot be guaranteed.  Consideration has therefore been given to rather protecting the Eskom servitude with an ecological buffer. It is emphasized that from a botanical perspective the No-Go buffer area is not sustainable without the long-term protection of the Eskom servitude since the intention is to buffer the existing ecological link formed by the servitude (maintaining the spatial ecological link between the CBAs to the north and south). The recommended 40 m wide buffer area is indicated in Figure 18B. This area should be protected from dumping and general disturbance in the event of the development being approved. | | | |
| 13. What will the cumulative impacts (positive and negative) of the proposed land use associated with the development proposal and associated listed activity(ies) applied for, be? | | | |
| CUMULATIVE IMPACTS ON VEGETATION  The naturally occurring vegetation, Cape Flats Dune Strandveld is an ENDANGERED D1 vegetation type.  The development will entail the loss of approximately 8 hectares of this habitat, varying from significantly degraded to intact vegetation.  Although this is not an overly excessive amount of vegetation loss, it adds to the continued loss of small portions of this endangered vegetation type in this area and is therefore regarded as a cumulative impact. | | | |
| 14. Is the development the **best practicable environmental option** for this land/site? | YES | NO | Please explain |
| Regardless of the fact that the site is not currently appropriately zoned for the proposed land use, the development is regarded to be in line with the surrounding land uses as the site is surrounded by residential land uses.  As per section 13 above, the most prominent impact from an environmental perspective is the permanent loss of endangered vegetation amounting to approximately 8 hectares.  Considering the current housing demand and land invasion situation within the City of Cape Town, and social ills such as dumping and sand mining, the integrity of the small patches of intact vegetation on site cannot be guaranteed.  The Preferred Alternative takes into consideration both socio-economic and ecological concerns.   1. The dire need to service the needs of communities with housing. 2. A responsibility to ensure persistence of critical habitats.   With consideration with the above, a decision was made by the project team to protect the Eskom servitude with an ecological buffer. It is emphasized that from a botanical perspective the No-Go buffer area is not sustainable without the long-term protection of the Eskom servitude since the intention is to buffer the existing ecological link formed by the servitude (maintaining the spatial ecological link between the CBAs to the north and south). The recommended 40 m wide buffer area is indicated in Figure 18B. This area should be protected from dumping and general disturbance in the event of the development being approved. | | | |
| 15. What will the benefits be to society in general and to the local communities? | | | Please explain |
| There is a dire need for housing in the South African context.  The proposed development will allow for a variety of housing opportunities including FLISP (Finance Linked Individual Subsidy Programme), BNG (Breaking New Ground) and Incremental Housing.  The main emphasis will be on high density residential opportunities and an estimated 3932 residential opportunities can be created on the property. Other land uses over and above the residential erven will be community facilities, public open spaces and commercial, retail and service industries to provide future employment opportunities.  The development will also provide for employment opportunities during the construction phase of the development. | | | |
| 16. Any **other** need and desirability considerations related to the proposed development? | | | Please explain |
| See above. | | | |
| 17. Describe how the general objectives of Integrated Environmental Management as set out in Section 23 of the NEMA have been taken into account: | | | |
| The site has been assessed using a range of specialist studies to determine the environmental sensitivity of the site and appropriate mitigation measures.  The DEA&DP’s Guideline on Public Participation (March 2013) have been consulted for this Basic Assessment process.  The relevant Organs of State will be provided with an opportunity to review and comment on the Basic Assessment Reports. Thus, there is an opportunity for environmental considerations to be included in decision-making by these Organs of State as well as adequate Public Participation. | | | |
| 18 Describe how the principles of environmental management as set out in Section 2 of the NEMA have been taken into account: | | | |
| The investigation of the development and its associated impacts has considered the possible benefits of the development for the receiving social, economic and biophysical environment; as well as the possible harm that may result to the environment as a result of the development.  The impacts of the development on the receiving environment have been considered without favouring any particular aspect of the receiving environment over another aspect.  All interested and affected parties identified as possibly impacted (or benefited) by the development will be given the opportunity to participate in the Basic Assessment process through public participation activities that will be undertaken in accordance with Chapter 6 of the NEMA EIA Regulations contained in GN No. R983 of 2014.  The identification of any possible negative environmental impacts associated with the development have led to the recommendation of suitable design, layout and operational mitigation measures to either avoid any such impacts altogether; or to ensure that such impacts remain at an acceptable level without adversely impacting the environment.  The most reasonable and feasible alternatives in relation to the proposed activity, the necessary mitigation measures for implementation during the life cycle of the development, are considered by the EAP to represent the Best Practicable Environmental Option for land use at the site. | | | |

**Section E: DETAILS OF ALL THE ALTERNATIVES CONSIDERED**

**Note:** Before completing this section, first consult this Department’s Circular EADP 0028/2014 (dated 9 December 2014) on the “One Environmental Management System” and the EIA Regulations, 2014 (as amended), any subsequent Circulars, and guidelines available on the Department’s website [**http://www.westerncape.gov.za/eadp**](http://www.westerncape.gov.za/eadp)**.**

The EIA Regulations, 2014 (as amended) defines “*alternatives*” as “ *in relation to a proposed activity, means different means of fulfilling the general purpose and requirements of the activity, which may include alternatives to the—*

*(a) property on which or location where the activity is proposed to be undertaken;*

*(b) type of activity to be undertaken;*

*(c) design or layout of the activity;*

*(d) technology to be used in the activity; or*

*(e) operational aspects of the activity;*

*(f) and includes the option of not implementing the activity;”*

The NEMA (section 24(4)(a) and (b) of the NEMA, refers) prescribes that the procedures for the investigation, assessment and communication of the potential consequences or impacts of activities on the environment must, *inter alia*, with respect to every application for environmental authorisation –

* ensure that the general objectives of integrated environmental management laid down in the NEMA and the National Environmental Management Principles set out in the NEMA are taken into account; and
* include an investigation of the potential consequences or impacts of the alternatives to the activity on the environment and assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity.

The general objective of integrated environmental management (section 23 of NEMA, refers) is, *inter alia*, to “*identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management*” set out in the NEMA.

The identification, evaluation, consideration and comparative assessment of alternatives directly relate to the management of impacts. Related to every identified impact, alternatives, modifications or changes to the activity must be identified, evaluated, considered and comparatively considered to:

* in terms of negative impacts, firstly avoid a negative impact altogether, or if avoidance is not possible alternatives to better mitigate, manage and remediate a negative impact and to compensate for/offset any impacts that remain after mitigation and remediation; and
* in terms of positive impacts, maximise impacts.

1. **DETAILS of the identified and considered alternatives and indicate those alternatives that were found to be feasible and reasonable**

**Note: A full description of the investigation of alternatives must be provided and motivation if no reasonable or feasible alternatives exists.**

1. Property and **location/site** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

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| Erf 1901, Blue Downs is owned by the City of Cape Town (COCT).  One of COCT’s mandates is to provide housing opportunities within the so-called GAP or affordable housing market.  Over the past few years, many parcels of land have been made available in this area for the development of housing and this site has now been allocated to be developed within the current planning of the COCT.  Therefore, no other location or site alternatives were considered. |

1. **Activity** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

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| No activity alternatives have been identified as part of this development. |

1. **Design or layout** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

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| **ALTERNATIVE 1: First draft concept block layout (no sensitive area)**  C:\Users\chantel\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\ALTERNATIVE 1_First draft block layout.jpg  This alternative was the initial concept block layout plan proposing development for the entire subject property, not including any sensitive area. As this plan was conceptual the areas and numbers are only estimated.  The development is proposed to be a mix between subsidy housing and GAP housing units. However the GAP housing will only make up a small percentage of the development, approximately 5% as required by the City of Cape Town Housing Department. The subsidy housing is proposed to consist of a mix of single and double storey semi-detached, 3 and 4 row housing and the GAP units is proposed to be single storey freestanding units.  In terms of residential distribution, it is proposed that the GAP units be located to the north and eastern parts of the site, closer to Blue Downs way to serve as a buffer between the middle to higher income established residential areas. The remainder of the site will be subsidised housing.  The residential yield of this layout is proposed to be approximately 3 533 units which gives a gross density of 49 units per hectare.  A social / community node is proposed in the centre of the development where the schools, sport field and community centre will be located. A couple of smaller nodes and public open spaces is proposed and distributed across the rest of the development including crèche / ECD and place of worship sites. These facilities are approximately 7ha in total.  Business and mixed use sites (approximately 6ha in total) are proposed along Blue Downs way and at main intersections and entrance points to the development.  One detention pond of approximately 0,8ha is proposed in the south-western corner of the site.  The main and internal movement routes is based on a grid structure and as some of the roads are already existing and serves as development fixes, the road network were planned taking these roads into consideration. The road hierarchy varies between 22m, 16m, 13m and 10m roads. In terms of parking, no on-site parking will be provided. Parking can be in the courtyards and on-street. |
| **ALTERNATIVE 2: Second draft concept block layout (including the no-go sensitive area)**  C:\Users\chantel\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\ALTERNATIVE 2_Second draft block layout_with no go area.jpg  This alternative was the initial concept block layout plan proposing development for the entire subject property excluding the entire no-go sensitive area of approximately 10,7ha on the western boundary as indicated by the Botanist. As this plan was conceptual the areas and numbers are only estimated.  The development is proposed to be a mix between subsidy housing and GAP housing units. However the GAP housing will only make up a small percentage of the development, approximately 5% as required by the City of Cape Town Housing Department. The subsidy housing is proposed to consist of a mix of single and double storey semi-detached, 3 and 4 row housing and the GAP units is proposed to be single storey freestanding units.  In terms of residential distribution, it is proposed that the GAP units be located to the north and eastern parts of the site, closer to Blue Downs way to serve as a buffer between the middle to higher income established residential areas. The remainder of the site will be subsidised housing.  The residential yield of this layout is proposed to be approximately 3 079 units which gives a gross density of 42 units per hectare.  A social / community node is proposed in the centre of the development where the schools, sport field and community centre will be located. A couple of smaller nodes and public open spaces is proposed and distributed across the rest of the development including crèche / ECD and place of worship sites. These facilities are approximately 7ha in total.  Business and mixed use sites (approximately 5ha in total) are proposed along Blue Downs way and at main intersections and entrance points to the development.  One detention pond of approximately 0,8ha is proposed in the south-western corner of the site.  The main and internal movement routes is based on a grid structure and as some of the roads are already existing and serves as development fixes, the road network were planned taking these roads into consideration. The road hierarchy varies between 22m, 16m, 13m and 10m roads. In terms of parking, no on-site parking will be provided. Parking can be in the courtyards and on-street. |
| **ALTERNATIVE 3: First draft detail subdivision layout (no sensitive area)**  C:\Users\chantel\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\ALTERNATIVE 3_Blue Berry Hill First draft Subdiv Layout -  (23 Okt 2018).jpg  This was the first detail subdivision layout plan which was done on the full potential of the site, thus also including the sensitive no-go area in the developable area of the subject property.  The total residential yield for this layout is 4 272 units, of which 4 046 is subsidy units and 239 is GAP units. This amounts to a gross density of 51,4 units per hectare.  In terms of housing typologies, the image below illustrates the typical housing typologies, erf sizes and dimensions proposed for the development.    In terms of residential distribution, only approximately 5% is proposed to be GAP housing and the rest subsidised housing. The GAP units are located towards the eastern part of the site, closer to Blue Downs way and all along Blue Downs way due to the existing middle to higher income residential area in this location.  The following table indicates the non-residential land uses which are proposed as part of the development: |
| The distribution and location of the schools allows for easy access to all the residents. The sport field will be a community sport field and are located in the centre of the development and on the main access roads to improve access to the residents of the proposed development as well as to the surrounding communities. The Primary School to the south and east of the sport field will share the sport facilities and are therefore reduced in size to allow only for the school buildings. This sharing of facilities are proposed in order to reduce costs and land area and in turn increase the densities which allows for the much needed increase in residential opportunities.  Six local nodes is provided and distributed as such so that it is easily accessible to all residents. These local nodes consist of a cluster of erven allocated for a public open space (from 640² – 1 495m²), crèche / ECD (from 779² – 1 509m²) and a place of worship (from 1 022² – 1 518m²).  The layout also makes provision for one electrical substation in the south-eastern part of the site as required by the Electrical Engineers. The mini-substation positions will only be determined at the detail design stage.  The civil Engineers calculated the stormwater run-off and required a total of four detention ponds to be provided. One in the south-western corner, one a bit to the north adjacent to the western boundary and the other two on the eastern boundary adjacent to Blue Downs Road. The total size of the detention ponds is 2,65ha.  The road hierarchy as determined by the City’s Transport department in consultation with the consultant project Engineers is 18m, 16m, 12m, 10m and 8m. There are five access roads which forms the main internal movement system. These roads vary between 18m, 16m and 12m. The rest of the lower order internal roads are 10m and 8m. The 8m roads are only located at the GAP units as these erven are big enough to accommodate on-site parking. The subsidy erven does not accommodate on-site parking but only parking in the courtyards and on-street. For this reason the road reserve widths are 10m to allow for parking on one side of the road. |
| **ALTERNATIVE 4 (Preferred alternative): Second draft detail subdivision layout (including the no-go sensitive area)**  C:\Users\chantel\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\ALTERNATIVE 4_Blue Berry Hill Layout -  (5 NOV 2018)_with sensitive area.jpg  This was the second detail subdivision layout plan which was done and accommodates a 40m sensitive no-go buffer area on the western boundary of the site as proposed by the Botanist. The sensitive no-go area is 2,68ha in size.  The total residential yield for this layout is 3 932 units, of which 3 706 is subsidy units and 226 is GAP units. This amounts to a gross density of 49,8 units per hectare.  In terms of housing typologies, the image below illustrates the typical housing typologies, erf sizes and dimensions proposed for the development.    In terms of residential distribution, only approximately 5% is proposed to be GAP housing and the rest subsidised housing. The GAP units are located towards the eastern part of the site, closer to Blue Downs way and all along Blue Downs way due to the existing middle to higher income residential area in this location. |
| The northern part of the site is proposed to be subsidised units, but only semi-detached to create a lower density in this area adjacent to the established residential area to the north. This area can then also in future accommodate GAP housing units if there is an increased demand for this type of housing.  The following table indicates the non-residential land uses which are proposed as part of the development:    The distribution and location of the schools allows for easy access to all the residents. The sport field will be a community sport field and are located in the centre of the development and on the main access roads to improve access to the residents of the proposed development as well as to the surrounding communities. The Primary School to the south of the sport field will share the sport facilities and are therefore reduced in size to allow only for the school buildings. This sharing of facilities are proposed in order to reduce costs and land area and in turn increase the densities which allows for the much needed increase in residential opportunities.  Seven local nodes is provided and distributed as such so that it is easily accessible to all residents. These local nodes consist of a cluster of erven allocated for a public open space (from 653² – 1 495m²), crèche / ECD (from 620² – 1 509m²) and a place of worship (from 657² – 1 504m²).  The layout also makes provision for one electrical substation in the south-eastern part of the site as required by the Electrical Engineers. The mini-substation positions will only be determined at the detail design stage.  The civil Engineers calculated the stormwater run-off and required a total of four detention ponds to be provided. One in the south-western corner, one a bit to the north adjacent to the western boundary and the other two on the eastern boundary adjacent to Blue Downs Road. The total size of the detention ponds is 2,67ha.  The road hierarchy as determined by the City’s Transport department in consultation with the consultant project Engineers is 18m, 16m, 12m, 10m and 8m. There are five access roads which forms the main internal movement system. These roads vary between 18m, 16m and 12m. The rest of the lower order internal roads are 10m and 8m. The 8m roads are only located at the GAP units as these erven are big enough to accommodate on-site parking. The subsidy erven does not accommodate on-site parking but only parking in the courtyards and on-street. For this reason the road reserve widths are 10m to allow for parking on one side of the road. |

1. **Technology** alternatives (*e.g.,* to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

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| No technology alternatives have been considered for this development. |

1. **Operational** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

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| No operational alternatives have been considered for this development. |

1. The option of **not implementing** the activity (the ‘*No-Go*’ Option):

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| The no-go option entails the maintaining of the status quo of the site. In this case, the no-go option would mean that the development will not take place and that there will consequently be now disturbance on environmental aspects of the site.  The site will remain as is, undeveloped and the vegetation would remain in its present state.  The no-go alternative will fail to address the dire need for housing in the Blue Downs – as well as larger City of Cape Town area.  Given the scale of the proposed housing development, a considerable economic contribution to the local community in the form of employment opportunities will also be foregone should the development not take place.  Should the property remain vacant it will also most likely attract vagrancy, littering and other undesirable activities thereby compromising the safety and environmental quality of the area.  **Pros and Cons of the No-Go Alternative**   * The No-Go alternative will likely result in the gradual decline and degradation of the vegetation on site unless access control, ongoing clearing of invasive alien plants as well as regular maintenance is undertaken on the site. |

1. **Other** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

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| No other alternatives were considered. |

1. Provide a **summary** of all alternatives investigated and the outcome of each investigation:

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| **ALTERNATIVE 1: First draft concept block layout (no sensitive area)**  This alternative was the initial concept block layout plan proposing development for the entire subject property, not including any sensitive area. As this plan was conceptual the areas and numbers are only estimated.  *After consultation with the various COCT branches and based on feedback received from the Environmental Pre-Feasibility Scanning Report with regards to environmental sensitivities, elements of this layout deemed to be undesirable were revised to get to Alternative 2.*  ***Given that this alternative has no consideration for the sensitive vegetation occurring on site, this alternative was not included and assessed in the Impact Section F below.***  **ALTERNATIVE 2: Second draft concept block layout (including the no-go sensitive area)**  This alternative was the initial concept block layout plan proposing development for the entire subject property excluding the entire no-go sensitive area of approximately 10,7ha on the western boundary as indicated by the Botanist. As this plan was conceptual the areas and numbers are only estimated.  *This alternative was deemed undesirable due to the fact that no consideration is given in this alternative to the conservation of endangered vegetation on the site.*  **ALTERNATIVE 3: First draft detail subdivision layout (no sensitive area)**  This was the first detail subdivision layout plan which was done on the full potential of the site, thus also including the sensitive no-go area in the developable area of the subject property.  The total residential yield for this layout is 4 272 units, of which 4 046 is subsidy units and 239 is GAP units. This amounts to a gross density of 51,4 units per hectare.  *This alternative was similarly deemed undesirable due to the fact that no consideration is given in this alternative to the conservation of endangered vegetation on the site.*  ***Given that this alternative has no consideration for the sensitive vegetation occurring on site, this alternative was not included and assessed in the Impact Section F below.***    **ALTERNATIVE 4 (Preferred alternative): Second draft detail subdivision layout (including the no-go sensitive area)**  This was the second detail subdivision layout plan which was done and accommodates a 40m sensitive no-go buffer area on the western boundary of the site as proposed by the Botanist. The sensitive no-go area is 2,68ha in size.  The total residential yield for this layout is 3 932 units, of which 3 706 is subsidy units and 226 is GAP units. This amounts to a gross density of 49,8 units per hectare.  *The Preferred Alternative was deemed as the most feasible alternative as it takes into consideration both socio-economic and ecological concerns.*  *a) The dire need to service the needs of communities with housing.*  *b) A responsibility to ensure persistence of critical habitats.* |

1. Provide a detailed **motivation for not further considering** the alternatives that were found not feasible and reasonable, including a description and proof of the investigation of those alternatives:

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| There is a dire need for housing in the South African context.  The proposed development will allow for a variety of housing opportunities including FLISP (Finance Linked Individual Subsidy Programme), BNG (Breaking New Ground) and Incremental Housing.  The main emphasis will be on high density residential opportunities and an estimated 3932 residential opportunities can be created on the property. Other land uses over and above the residential erven will be community facilities, public open spaces and commercial, retail and service industries to provide future employment opportunities.  The development will also provide for employment opportunities during the construction phase of the development.  Regardless of the fact that the site is not currently appropriately zoned for the proposed land use, the development is regarded to be in line with the surrounding land uses as the site is surrounded by residential land uses.  The most prominent impact from an environmental perspective is the permanent loss of endangered vegetation amounting to approximately 8 hectares.  Considering the current housing demand and land invasion situation within the City of Cape Town, and social ills such as dumping and sand mining, the integrity of the small patches of intact vegetation on site cannot be guaranteed.  The Preferred Alternative was deemed as the most feasible alternative as it takes into consideration both socio-economic and ecological concerns.  a) The dire need to service the needs of communities with housing.  b) A responsibility to ensure persistence of critical habitats.  With consideration with the above, a decision was made by the project team to protect the Eskom servitude with an ecological buffer. It is emphasized that from a botanical perspective the No-Go buffer area is not sustainable without the long-term protection of the Eskom servitude since the intention is to buffer the existing ecological link formed by the servitude (maintaining the spatial ecological link between the CBAs to the north and south). The recommended 40 m wide buffer area is indicated in **Figure 18B**. This area should be protected from dumping and general disturbance in the event of the development being approved. |

1. **Preferred alternative**
2. Provide a **concluding statement** indicating the preferred alternative(s), including preferred location, site, activity and technology for the development.

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| **ALTERNATIVE 4 (Preferred alternative): Second draft detail subdivision layout (including the no-go sensitive area)**  C:\Users\chantel\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\ALTERNATIVE 4_Blue Berry Hill Layout -  (5 NOV 2018)_with sensitive area.jpg  This was the second detail subdivision layout plan which was done and accommodates a 40m sensitive no-go buffer area on the western boundary of the site as proposed by the Botanist. The sensitive no-go area is 2,68ha in size.  The total residential yield for this layout is 3 932 units, of which 3 706 is subsidy units and 226 is GAP units. This amounts to a gross density of 49,8 units per hectare.  In terms of housing typologies, the image below illustrates the typical housing typologies, erf sizes and dimensions proposed for the development.    In terms of residential distribution, only approximately 5% is proposed to be GAP housing and the rest subsidised housing. The GAP units are located towards the eastern part of the site, closer to Blue Downs way and all along Blue Downs way due to the existing middle to higher income residential area in this location. |
| The northern part of the site is proposed to be subsidised units, but only semi-detached to create a lower density in this area adjacent to the established residential area to the north. This area can then also in future accommodate GAP housing units if there is an increased demand for this type of housing.  The following table indicates the non-residential land uses which are proposed as part of the development:    The distribution and location of the schools allows for easy access to all the residents. The sport field will be a community sport field and are located in the centre of the development and on the main access roads to improve access to the residents of the proposed development as well as to the surrounding communities. The Primary School to the south of the sport field will share the sport facilities and are therefore reduced in size to allow only for the school buildings. This sharing of facilities are proposed in order to reduce costs and land area and in turn increase the densities which allows for the much needed increase in residential opportunities.  Seven local nodes is provided and distributed as such so that it is easily accessible to all residents. These local nodes consist of a cluster of erven allocated for a public open space (from 653² – 1 495m²), crèche / ECD (from 620² – 1 509m²) and a place of worship (from 657² – 1 504m²).  The layout also makes provision for one electrical substation in the south-eastern part of the site as required by the Electrical Engineers. The mini-substation positions will only be determined at the detail design stage.  The civil Engineers calculated the stormwater run-off and required a total of four detention ponds to be provided. One in the south-western corner, one a bit to the north adjacent to the western boundary and the other two on the eastern boundary adjacent to Blue Downs Road. The total size of the detention ponds is 2,67ha.  The road hierarchy as determined by the City’s Transport department in consultation with the consultant project Engineers is 18m, 16m, 12m, 10m and 8m. There are five access roads which forms the main internal movement system. These roads vary between 18m, 16m and 12m. The rest of the lower order internal roads are 10m and 8m. The 8m roads are only located at the GAP units as these erven are big enough to accommodate on-site parking. The subsidy erven does not accommodate on-site parking but only parking in the courtyards and on-street. For this reason the road reserve widths are 10m to allow for parking on one side of the road. |

**Section F: environmental aspects associated with the alternatives**

**Note**: The information in this section must be DUPLICATED for all the feasible and reasonable ALTERNATIVES.

1. **DESCRIBE THE ENVIRONMENTAL Aspects ASSOCIATED WITH THE PROPOSED DEVELOPMENT AND ITS ALTERNATIVES, FOCUSING ON THE FOLLOWING:**
2. Geographical, geological and physical aspects:

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| **Geographical, geological and physical aspects**  According to the Civil Engineering Scoping report (Nadeson, October 2018) the site is divided by a watershed that runs from a high point close to the northern boundary of the site with falls in the region of 2.5%. The site however also has sections of undulating terrain that create localised low points.  These areas will require shaping (cut to fill) to prevent ponding/flooding. DCP results have indicated that portions of the site have very loosely compacted soils t depths of roughly 0.5m. In these areas the loose soils will be cut, filled and compacted in layers to achieve the required density. Shaping of plots with surplus cut material will be required to prevent the costs associated with spoiling the material.  **Regional Geology**  According to the preliminary Geotechnical Site Assessment Report (SRK, March 2018) previous investigations undertaken in the area indicate that the site is likely to be covered by a layer of Aeolian sand.  The thickness of the Aeolian sand is likely to vary depending on the height and extent of the former sand dunes. It is expected that the Aeolian sand thicknesses is likely to be in the order of 1 m to 2 m (dependant on the nature of the former sand dunes).  In general, the soil profile is likely to be characterised by an upper layer of fine to medium sand of Aeolian origin (windblown). The Aeolian sand is likely to be underlain by a thin layer of clayey fine sand (inferred to be reworked Malmesbury clay). With increasing depth, the underlying soil is expected to comprise of clayey silt derived from the in situ weathering/decomposition of Malmesbury Group shale. No rock outcrop is expected to be present at the site, and it is unlikely that bedrock will be present within 3 m of the surface.  The near-surface soils are likely to consist of granular fine to medium sand of Aeolian origin. The extent to which the site may have been previously levelled is unknown (original topography may have been characterised by an undulating sand dune topography). |

1. Ecological aspects:

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| Will the proposed development and its alternatives have an impact on CBAs or ESAs?  If yes, please explain:  Also include a description of how the proposed development will influence the quantitative values (hectares/percentage) of the categories on the CBA/ESA map. | YES | | **NO** |
| **Botanical**  The findings of this study show that the study area supports about 40 ha of mostly degraded but ENDANGERED Cape Flats Dune Strandveld, with a small portion of semi-intact vegetation and even smaller portion of intact vegetation. The question, within the context of the proposed development, is whether or not the remnant vegetation should be conserved and restored in the perpetuity. Two options were considered in this regard. The first option that was given consideration was to set aside a representative sample vegetation in the north-western sector of the site. Although some of the remaining areas of the site support patches of natural vegetation, they are regarded as being of poor ecological condition as well as occurring where long-term protection is not viable since the disturbance regime is high. Consideration was thus given to conserve this portion since it is representative sample of habitat and fortuitously happens to abut the Eskom servitude that contains ecologically intact vegetation and a remnant dune system that links natural areas to the north and south. This first option is problematic from a development point of view since the project, by virtue of being a low-cost housing development, seeks to maximize all of the available space provided by the undeveloped land. A second option was thus considered that places greater emphasis on protecting the Eskom servitude. The second option takes into consideration (a) the dire need to service the needs of communities with housing versus (b) a responsibility to ensure persistence of critical habitats. Consideration is given to rather protecting the Eskom servitude with an ecological buffer. It is emphasized that from a botanical perspective the No-Go buffer area is not sustainable without the long-term protection of the Eskom servitude since the intention is to buffer the existing ecological link formed by the servitude (maintaining the spatial ecological link between the CBAs to the north and south). The recommended 40 m wide buffer area is indicated in Figure 18B. This area should be protected from dumping and general disturbance in the event of the development being approved. | | | |
| Will the proposed development and its alternatives have an impact on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)?  If yes, please explain: | **YES** | | NO |
| **Ecological aspects**  **Freshwater**  The June 2018 freshwater site scan by the Freshwater Consulting Group (FCG) concluded that the areas mapped as wetlands on the site by the City of Cape Town's Wetlands Map (highlighted in green in the map in Figure 7 below) are NOT wetlands and that the areas we identified (in blue) as potential wetlands are not naturally-occurring wetlands.  A possible dune slack wetland area was observed along a short section of the north-western boundary of the site, extending from the servitude on the outside of that boundary.  The FCG were consequently appointed to conduct a scan of the portion of the Eskom servitude and N7 Road Reserve located along the north-western boundary of the site. The purpose of this site scan was to confirm whether any wetlands are present in the dune slack areas within the corridor of undeveloped land along the north-western boundary of the site.  The overall conclusion of the follow-up investigation and assessment of the servitude was that there are no wetlands associated with the dune slack areas in the portion of the Eskom servitude and N7 Road Reserve situated along the north-western boundary of the proposed development site.  As such, no wetlands have been identified on or immediately adjacent to Erf 1901.  **Botanical**  The findings of this study show that the study area supports about 40 ha of mostly degraded but ENDANGERED Cape Flats Dune Strandveld, with a small portion of semi-intact vegetation and even smaller portion of intact vegetation. The question, within the context of the proposed development, is whether or not the remnant vegetation should be conserved and restored in the perpetuity. Two options were considered in this regard. The first option that was given consideration was to set aside a representative sample vegetation in the north-western sector of the site. Although some of the remaining areas of the site support patches of natural vegetation, they are regarded as being of poor ecological condition as well as occurring where long-term protection is not viable since the disturbance regime is high. Consideration was thus given to conserve this portion since it is representative sample of habitat and fortuitously happens to abut the Eskom servitude that contains ecologically intact vegetation and a remnant dune system that links natural areas to the north and south. This first option is problematic from a development point of view since the project, by virtue of being a low-cost housing development, seeks to maximize all of the available space provided by the undeveloped land. A second option was thus considered that places greater emphasis on protecting the Eskom servitude. The second option takes into consideration (a) the dire need to service the needs of communities with housing versus (b) a responsibility to ensure persistence of critical habitats. Consideration is given to rather protecting the Eskom servitude with an ecological buffer. It is emphasized that from a botanical perspective the No-Go buffer area is not sustainable without the long-term protection of the Eskom servitude since the intention is to buffer the existing ecological link formed by the servitude (maintaining the spatial ecological link between the CBAs to the north and south). The recommended 40 m wide buffer area is indicated in Figure 18B. This area should be protected from dumping and general disturbance in the event of the development being approved. | | | |
| Will the proposed development and its alternatives have an impact on any populations of threatened plant or animal species, and/or on any habitat that may contain a unique signature of plant or animal species?  If yes, please explain: | **YES** | | NO |
| Refer to the above | | | |
| Describe the manner in which any other biological aspects will be impacted: | | | |
| N/A | | | |
| Will the proposed development also trigger section 63 of the NEM: ICMA? | YES | **NO** | |
| If yes, describe the following:  (i) the extent to which the applicant has in the past complied with similar authorisations;  (ii) whether coastal public property, the coastal protection zone or coastal access land will be affected, and if so, the extent to which the proposed development proposal or listed activity is consistent with the purpose for establishing and protecting those areas;  (iii) the estuarine management plans, coastal management programmes, coastal management lines and coastal management objectives applicable in the area;  (iv) the likely socio-economic impact if the listed activity is authorised or is not authorised;  (v) the likely impact of coastal environmental processes on the proposed development;  (vi) whether the development proposal or listed activity—  (a) is situated within coastal public property and is inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations;  (b) is situated within the coastal protection zone and is inconsistent with the purpose for which a coastal protection zone is established as set out in section 17 of NEM: ICMA;  (c) is situated within coastal access land and is inconsistent with the purpose for which  coastal access land is designated as set out in section 18 of NEM: ICMA;  (d) is likely to cause irreversible or long-lasting adverse effects to any aspect of the coastal  environment that cannot satisfactorily be mitigated;  (e) is likely to be significantly damaged or prejudiced by dynamic coastal processes;  (f) would substantially prejudice the achievement of any coastal management objective; or  (g) would be contrary to the interests of the whole community;  (vii) whether the very nature of the proposed activity or development requires it to be located within  coastal public property, the coastal protection zone or coastal access land;  (viii) whether the proposed development will provide important services to the public when  using coastal public property, the coastal protection zone, coastal access land or a coastal  protected area; and  (ix) the objects of NEM: ICMA, where applicable. | | | |
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1. Social and Economic aspects: **Client to please provide**

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| What is the expected capital value of the project on completion? | R | |
| What is the expected yearly income or contribution to the economy that will be generated by or as a result of the project? | R | |
| Will the project contribute to service infrastructure? | YES | NO |
| Is the project a public amenity? | YES | NO |
| How many new employment opportunities will be created during the development phase? |  | |
| What is the expected value of the employment opportunities during the development phase? | R | |
| What percentage of this will accrue to previously disadvantaged individuals? | % | |
| How will this be ensured and monitored (please explain): | | |
|  | | |
| How many permanent new employment opportunities will be created during the operational phase of the project? |  | |
| What is the expected current value of the employment opportunities during the first 10 years? | R | |
| What percentage of this will accrue to previously disadvantaged individuals? | % | |
| How will this be ensured and monitored (please explain): | | |
|  | | |
| Any other information related to the manner in which the socio-economic aspects will be impacted: | | |
|  | | |

1. Heritage and Cultural aspects:

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| The 1940 Topographical Map (**Figure 6** in NID report) shows the study area to be open land, with the Eerste Rivier Forest Reserve located to the north-west and Kleinvlei Farm to the east. There are references to the establishment of the beacons for the Forest Reserve by 1913. However, between 1917 and 1933, portions of the Eerste River Forest Reserve were being disposed for land settlement, specifically “proposed Coloured settlement on Cape Flats” (KAB ACLT\_751\_9704\_1). The subdivision of the Klein Vlei Farm, to the east of Blueberry Hill, commenced in the 1950s.  According to the Heritage Notice of Intent to Develop (Lita Webley, May 2018) only isolated patches of the original Cape Flats landscape occur in the area, as for example the Driftsands Nature Reserve to the west of the study area. It indicates the desolate wilderness that separated the City from the hinterland, and posed such an obstacle for hundreds of years.  By 1960, the general area had acquired the name of Blue Downs, and a collection of buildings, called Hindle Farm, are located on the eastern perimeter. Government records note that sewer reticulation to Blue Downs occurred with effect 1987.  According to the Surveyor General (SG 10086-86), Erf 1901 Blue Downs, originally comprised Portion 13 (a portion of portion 7) of the farm Eersriv No 981. An earlier SG map (SG 1656/72) dating to 1972, shows the subdivision of the farm. It was bordered on the east by the farm Klein Vlei No 461, the farm Driftsands No 544 to the east, the farms Bardale No 451 and Wimbledon No 454 to the north-west and north-east respectively.  In 1980, the Topographical Map still shows no development on the property, with Hindle and Bella Vista indicated on the eastern perimeter, and a row of trees following Eerste River Way, and crossing the property. The current outline of the area, Blueberry Hill, is shown on the 1990 topographical map. This map confirms that there are no buildings on the property, with the exception of those on Erf 15571 which do not form part of the current proposals (2005 Google Earth image of Erf 1901).  **Archaeological Aspects**  In their 2011 assessment of an area 1km to the north of the proposed Blueberry Hill Development, Webley & Avery noted that very little pre-colonial archaeological material has been found in this part of the Cape Flats. Similarly, the survey by Hart (2009) of the Driftsands area (3km to the west), also found no archaeological remains. A number of surveys by Orton (2004, 2006, 2007) in the Eerste River and Kuils River areas failed to identify any archaeological material. Although early records have discussed so-called “Cape Flats” sites, these have proven to be remarkably elusive, and it seems unlikely that any concentrations of artefacts will be found in the study area. A specialist archaeological assessment will not be necessary.  **Palaeontology Aspects**  Dr G Avery has commented on the proposed Blueberry Hill Housing Development in the attached letter (**Appendix 2 of NID report)**.  Referring to the preliminary geo-tech assessment, which indicates relatively shallow (probably Witzand Formation) cover sands becoming decomposed clayey Malmesbury over deeper Malmesbury substrate. He notes "the area skirts higher ground comprising Malmesbury soil/rocks and is at the easternmost extent of the Cape Flats dune plume. Late Pleistocene and earlier deposits, which may include palaeontological material, are normally deeper and much closer to the coast.  The Malmesbury derived soils are unlikely to include palaeontological material.  Foundations for housing developments are normally not deep and, apart from, and probably including, deeper infrastructure, unlikely to encounter palaeo material.  It is very unlikely that palaeontological material will be encountered and, should this prove not to be the case, the EMP could provide the necessary protocols.  He concludes that a “PIA will not be necessary".  The SAHRIS Palaeosensitivity map confirms that the proposed site and the Sir Lowry’s Pass in its entirety is of zero palaeontological sensitivity.  **Graves**  There are no formally proclaimed cemeteries in this area. However, there is always a possibility that an unmarked illegal or historic grave could occur.  **Living Heritage**  The very low vegetation on the property, comprising mainly ankle high grasses, and the absence of any indigenous vegetation – makes it very unlikely that the study area has been used for traditional or ritual purposes. There are no plants to use for medicinal purposes and no secluded areas for traditional purposes such as the Xhosa circumcision ceremony.  **Heritage Summary and Recommendations**  The proposed residential development on Erf 1901, Blue Downs will not result in any significant impacts to heritage resources.  As such we recommend that no further heritage-related studies are required in relation to the proposed development of Blueberry Hill on Erf 1901, Blue Downs.  The NID was submitted to HWC and a response was received from HWC, as included in **Appendix G,** confirming that no further work is required in terms of heritage impacts. |

1. **Waste and emissions**
2. Waste (including effluent) management

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| Will the development proposal produce waste (including rubble) during the development phase? | | **YES** | NO |
| If yes, indicate the types of waste (actual type of waste, *e.g.* oil, and whether hazardous or not) and estimated quantity per type? | | Unknown m3 | |
| All construction rubble will be kept to a minimum and recycled where possible. Construction rubble will consist of e.g. wood, broken bricks, cement bags, general waste, solid waste etc. | |  | |
|  | | | |
| Will the development proposal produce waste during its operational phase? | | **YES** | NO |
| If yes, indicate the types of waste (actual type of waste, *e.g.* oil, and whether hazardous or not) and estimated quantity per type? | | Unknown  m3 | |
| General domestic waste. Solid waste will be collected by municipality and disposed of appropriately. | |  | |
|  | | | |
| Will the development proposal require waste to be treated / disposed of on site? | | YES | **NO** |
| If yes, indicate the types of waste (actual type of waste, *e.g.* oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of? | | m3 | |
|  | |  | |
| If no, where and how will the waste be treated / disposed of? Please explain.  Indicate the types of waste (actual type of waste, *e.g.* oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of? | | m3 | |
| General domestic waste. Solid waste will be collected by municipality and disposed of appropriately. | |  | |
| Has the municipality or relevant authority confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal?  If yes, provide written confirmation from the municipality or relevant authority. | | **YES** | NO |
| Will the development proposal produce waste that will be treated and/or disposed of at another facility other than into a municipal waste stream? | | YES | **NO** |
| If yes, has this facility confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal?  Provide written confirmation from the facility. | | YES | NO |
| Does the facility have an operating license? (If yes, please attach a copy of the licence.) | | YES | NO |
| Facility name: | | | |
| Contact person: | | | |
| Cell: | Postal address: | | |
| Telephone: | Postal code: | | |
| Fax: | E-mail: | | |

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| Describe the measures that will be taken to reduce, reuse or recycle waste: |
| The City of Cape Town is attempting to limit the amount of waste generated by encouraging the recycling of plastic, glass paper and metal. These programs if effectively implemented will reduce the waste generated in the City of Cape Town. |

1. Emissions into the atmosphere

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| Will the development proposal produce emissions that will be released into the atmosphere? | YES | **NO** |
| If yes, does this require approval in terms of relevant legislation? | YES | NO |
| If yes, what is the approximate volume(s) of emissions released into the atmosphere? |  | m3 |
| Describe the emissions in terms of type and concentration and how these will be avoided/managed/treated/mitigated: | | |
| N/A | | |

1. **WATER USE**
2. Indicate the source(s) of water for the development proposal by highlighting the appropriate box(es).

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| **Municipal** | Water board | Groundwater | River, Stream,  Dam or Lake | Other | The project will not use water |

**Note**: Provide proof of assurance of water supply (e.g. Letter of confirmation from the municipality / water user associations, yield of borehole)

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| 1. If water is to be extracted from a groundwater source, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month: | N/A | | m3 | |
|  | | | | |
| 1. Does the development proposal require a water use permit / license from DWS? | | YES | | **NO** |
| If yes, please submit the necessary application to the DWS and attach proof thereof to this application as an Appendix. | | | | |
|  | | | | |
| 1. Describe the measures that will be taken to reduce water demand, and measures to reuse or recycle water: | | | | |
| The following is a description of some measures (but not limited to) that could be implemented to reduce water demand, and measures to reuse or recycle water.   * No watering of gardens and landscaped areas will take place before 09:00 or after 18:00 (or even later on hot summer days). * Watering of gardens and landscaped area during windy periods will be avoided and gardens will only be watered when necessary. * The using of alternative water sources will be encouraged where possible. * The planting of water-wise plants and limit the size of lawn areas will be encouraged. * The use of mulch (spread a layer of bark or other organic material over the soil) garden beds in the landscaping will be encouraged to prevent evaporation and a hard and impermeable crust developing on the soil, making it harder for plants to grow. * Indigenous plants/trees suited to the Western Cape will be used within any landscaped areas. * Water saving irrigation systems such as bubblers and drip irrigation is to be used to reduce the water that is lost by evaporation. * Rainwater can be harvested. * All indoor taps are to be fitted with aerators to reduce and spread the flow. * Metering taps, which have timers to deliver a pre-determined, but adjustable, quantity of water when operated, should be used in public buildings and any outside taps to prevent taps being left on or dripping. * Water-saving showerhead will be installed where applicable. * Water-saving toilets will be installed. | | | | |

1. **POWER SUPPLY**
2. Describe the source of power *e.g.* municipality / Eskom / renewable energy source.

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| Eskom |

1. If power supply is not available, where will power be sourced?

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1. **ENERGY EFFICIENCY**
2. Describe the design measures, if any, that have been taken to ensure that the development proposal will be energy efficient:

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| Solar geyser is a prerequisite for all new builds in South Africa.  Heat pumps are proposed as an additional power saving device together with the installation of LED lighting and effective energy metering within the residential units. |

1. Describe how alternative energy sources have been taken into account or been built into the design of the project, if any:

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| As above. |

1. **TRANSPORT, TRAFFIC AND ACCESS**

Describe the impacts in terms of transport, traffic and access.

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| ***Traffic Impacts***  The report investigates the transport implications of the proposed Blueberry Hill residential development in Blue Downs. It summarises the existing transportation conditions within the site vicinity, provides an assessment of the transportation impacts of the proposed development on the surrounding road network, and recommendations regarding improvements to mitigate negative impacts where necessary.  The main findings and conclusions are:   * The proposed Blueberry Hill development will be on Erf 1901, Blue Downs. The site is located between Eersriv Way and Blue Downs Way and directly north of Forest Drive. * The proposed development will comprise 3 932 Residential Units (797 Subsidy Single Storey units, 2 909 Subsidy Double Storey units and 226 GAP Housing units), Places of Worship, Crèche, Primary School, Secondary School and General   Business.   * The impact of the development has been assessed during the weekday AM and PM peak periods of operation. * Spine Road and Eersriv Way carries medium to high traffic volumes during the AM and PM peak hours. * Forest Drive carries low to medium traffic volumes during the AM and PM peak hours. * Blue Downs Way carries medium to high traffic volumes during the AM and PM peak hours. * A growth rate of 5.0% per annum was used for the 1 to 5-year design horizon and 2.5% per annum was used for the 5 to 10 year design horizon. * Access to the proposed development will be from Eersriv Way, Forest Drive and Blue Downs Way. * The development has the potential to generate 1 510 trips during the AM peak hour (505 in and 1005 out) and 1 290 trips during the PM peak hour (841 in and 449 out). * The Sidra analyses of the existing 2018 traffic operations indicated that the Spine Road/Old Faure Road and Blue Downs Way/Hindle Road/Raymond Ackerman Avenue intersections are currently operating at unacceptable levels of service (LOS F) during both the AM and PM peak hours. The remaining study intersections operate at acceptable levels of service. * The duelling of Eersriv Way between Old Faure Road and Washington Street is currently under construction and is assumed for completion before 2023, detailed design being undertaken from Lukhozi Consulting Engineers and proposed layouts have been taken into account for the start of 2023. * For the background 2023 traffic volume analysis, the duelling of Spine Road / Eersriv Way was taken into consideration. This includes the construction of roundabouts at the Eersriv Way / Mfuleni Road / London Way, Eersriv Way / Forest Drive and Spine Road / Old Faure Road intersections. The Sidra results indicate that all the study intersections will operate at acceptable levels of service for the AM and PM peak hours. * For the total 2028 traffic volume analyses, various improvements are required to ensure that all study intersections operate at acceptable levels of service. * Forest Drive / Blue Downs Way: upgrade to a two-lane roundabout. * Blue Downs Way / Hindle Road / Mars Street: upgrade to a two-lane roundabout with additional lanes on each approach. * The geometry of each site access is as follow:   + Entrance 1: The Eersriv Way / Entrance 1 Access should be constructed as a left-in, left-out access only.   + Entrance 2: The Forest Drive / Entrance 2 access should be upgraded to a roundabout intersection.   + Entrance 3: Entrance 3 on Blue Downs Way is proposed as a two-lane entrance (one lane in each direction) with stop control along Entrance 3.   + Entrance 4: Entrance 4 on Blue Downs Way is proposed as a two-lane entrance (one lane in each direction) with stop control along Entrance 4.   + Entrance 5: Entrance 5 on Blue Downs Way is proposed as a two-lane entrance (one lane in each direction) with stop control along Entrance 5. * A link analysis of the road network for the 2023 and 2028 traffic scenarios were undertaken. The results indicate that the southbound leg of Spine Road operates near capacity during the AM peak hour and the eastbound leg of Forest Drive will operate over capacity (east of Eersriv Way) and near capacity (west of Blue Downs Way) during the PM peak hour for the 2028 scenario. * The proposed development is well located within a network of public transport routes and the future MyCiti trunk route along Hindle Road. * A portion of the Development Contributions should be used for the upgrading of bicycle lanes and/or sidewalks in the vicinity of the site along the main arterials that traverse the proposed development, where necessary. * Parking should be provided in accordance with the specified guidelines. * Adequate pedestrian and cycle facilities to be provided along the internal roads, where necessary. * Several principles for the provision of public transport facilities and accommodation of pedestrians have been included in the report to guide and assist in the provision.   From the report, the following are recommended:   * That the Forest Drive/ Blue Downs Way/ Bobs Way intersection is upgraded to a two-lane roundabout with widening at all approaches. * The Blue Downs Way/ Hindle Road/ Mars Street (Raymond Ackerman Ave) is upgraded to a two-lane roundabout with widening on all approaches to accommodate additional lanes. * The Eersriv Way/ Entrance 1 intersection becomes a left-in, left-out (LILO) only and the median break is closed. * The Forest Drive/ Entrance 2 intersection is upgraded to roundabout with an inscribed diameter of at least 32m. * The detail design of all the accesses to the Blueberry Hill development must be approved by the relevant road authority. * A portion of the development contributions should be used for the upgrading/construction of bicycle lanes and/or sidewalks in the vicinity of the development. This should be approved/confirmed by the CoCT’s TDA: Head of   Universal Access & Non-Motorised Transport.  This report has shown that the proposed development can be accommodated by the adjacent transport network, provided the recommendations presented in the report are implemented. From a traffic engineering perspective, the application for this development is supported. |

1. **NUISANCE FACTOR (NOISE, ODOUR, etc.)**

Describe the potential nuisance factor or impacts in terms of noise and odours.

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| DUST AND NOISE IMPACTS  As a result of the construction phase of this development noise and dust impacts are expected to occur in the area due to an increase in construction vehicle and truck traffic for the duration of the construction phase while materials are being transported to the site, excavations are being made and vegetative groundcover is being removed.    The development is not anticipated to have considerable noise and/or other nuisance impacts operational phase. |

**Note**: Include impacts that the surrounding environment will have on the proposed development.

1. **OTHER**

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| N/A |

**Section G: Impact Assessment, IMPACT AVOIDANCE, MANAGEMENT, MITIGATION and MONITORING MEASURES**

1. **METHODOLOGY USED IN DETERMINING AND RANKING ENVIRONMENTAL IMPACTS AND RISKS ASSOCIATED WITH THE ALTERNATIVES**
2. Describe the **methodology** used in determining and ranking the nature, significance consequences, extent, duration and probability of potential environmental impacts and risks associated with the proposed development and alternatives.

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| This Basic Assessment was undertaken in accordance with the principles of Integrated Environmental Management as detailed in Section 23 of NEMA and in the NEMA EIA Regulations.  The impact assessment is aimed at determining the likely significance of any impacts (positive or negative) associated with the development. The significance of the impacts is determined by investigating certain key aspects, or parameters, of the potential impact, which are determined by the nature of the activity, as well as the nature of the receiving environment. Aspects investigated include the extent, duration and timing, and magnitude of the impact.  Table 2 below provides an explanation of the parameters used to determine the significance of an impact, as well as what “significance” means in the context of this impact assessment.  Other factors which are also considered in the assessment of impacts include whether the impact is direct, indirect or cumulative. A direct impact can be explained as being a direct result of activities associated with the development, such as the contamination of land by spillage from pumps.  An indirect impact would be a downstream, secondary or “knock-on” impact resulting from an impact directly associated with the development (such as negative impacts associated with the stream off the site)  A cumulative impact would be an impact which already occurs in the receiving environment associated with other activities taking place in proximity to the development, such as polluted stormwater and runoff from existing road surfaces.  Other factors considered include whether the impact is reversible; and whether the impact could cause an irreplaceable loss of resources.  The impact assessment methodology used has been closely guided by the DEAT EIA Guideline Document 5, on the assessment of impacts and alternatives (DEAT 2006); as well as reference to the description of the criteria used for the assessment of impacts as contained in the DEA&DP Specialist Guidelines Series (2005).  The assessment of the potential impacts has been based on SEC’s extensive experience related to environmental impact assessment as well as specialist assessment and input, where applicable.  The impact assessment has also been informed by input and comment from stakeholders. The potential impacts have been assessed after review by the professional team, including specialists, and on the basis of professional judgement.  It must be noted that determining the significance of impacts, although carefully and systematically considered, still remains a subjective judgement, as there are no truly objective measures that can be used to judge significance  Practicable mitigation measures (where warranted) have been identified to minimize the potential impacts associated with the retirement development proposal. The significance of any potential impact before and after mitigation is also provided to give an indication of the efficacy of the proposed mitigation measures. |
| Table 2: Parameters used to Establish Impact Significance   |  |  | | --- | --- | | **ITEM** | **DEFINITION** | | **EXTENT** | | | Local | Extending only as far as the boundaries of the activity, limited to the site and its immediate surroundings | | Regional | Impact on the broader region | | National | Will have an impact on a national scale or across international borders | | **DURATION** | | | Short-term | 0-5 years | | Medium- Term | 5-15 years | | Long-Term | >15 years, where the impact will cease after the operational life of the activity | | Permanent | Where mitigation, either by natural process or human intervention, will not occur in such a way or in such a time span that the impact can be considered transient. | | **MAGNITUDE OR INTENSITY** | | | Low | Where the receiving natural, cultural or social function/environment is negligibly affected or where the impact is so low that remedial action is not required. | | Medium | Where the affected environment is altered, but not severely and the impact can be mitigated successfully and natural, cultural or social functions and processes can continue, albeit in a modified way. | | High | Where natural, cultural or social functions or processes are substantially altered to a very large degree. If a negative impact then this could lead to unacceptable consequences for the cultural and/or social functions and/or irreplaceable loss of biodiversity to the extent that natural, cultural or social functions could temporarily or permanently cease. | | **PROBABILITY** | | | Improbable | Where the possibility of the impact materialising is very low, either because of design or historic experience | | Probable | Where there is a distinct possibility that the impact will occur | | Highly Probable | Where it is most likely that the impact will occur | | Definite | Where the impact will undoubtedly occur, regardless of any prevention measures | | **SIGNIFICANCE** | | | Low | Where a potential impact will have a negligible effect on natural, cultural or social environments and the effect on the decision is negligible. This will not require special design considerations for the project | | Medium | Where it would have, or there would be a moderate risk to natural, cultural or social environments and should influence the decision. The project will require modification or mitigation measures to be included in the design | | High | Where it would have, or there would be a high risk to natural, cultural or social environments. These impacts should have a major influence on decision making. | | Very High | Where it would have, or there would be a high risk of, an irreversible negative impact on biodiversity and irreplaceable loss of natural capital that could result in the project being environmentally unacceptable, even with mitigation. Alternatively, it could lead to a major positive effect. Impacts of this nature must be a central factor in decision making. | | **STATUS OF IMPACT** | | | Whether the impact is positive (a benefit), negative (a cost) or neutral (status quo maintained) | | | **DEGREE OF CONFIDENCE IN PREDICTIONS** | | | The degree of confidence in the predictions is based on the availability of information and specialist knowledge (e.g. low, medium or high) | | | **MITIGATION** | | | Mechanisms used to control, minimise and or eliminate negative impacts on the environment and to enhance project benefits. Mitigation measures should be considered in terms of the following hierarchy: (1) avoidance, (2) minimisation, (3) restoration and (4) off-sets. | | |

1. Please describe any gaps in knowledge.

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| The following uncertainties and gaps in knowledge were identified in the assessment undertaken:   * That the construction will be carried out according to the oil companies’ normal operating standards. * That management will act in a responsible manner and take action when incidents occur to determine the cause and/or rectify the cause of the problem. * That the available data, including Topocadastral maps, Orthophotographs, geological maps and DWS national ground water database information, are reasonably accurate. |

1. Please describe the underlying assumptions.

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| * That the site will be operated according to accepted oil industry and normal operating standards. * That management will act in a responsible manner and take action when incidents occur to determine the cause and/or rectify the cause of the problem. * That the installation of equipment at the facility is conducted by competent, trained contractors. In addition, all equipment must be adequately maintained. * That the equipment used fulfils its design requirements and is not faulty. * That the available data, including topocadastral maps, orthophotographs, geological maps and DWS national ground water database information, are reasonably accurate. |

1. Please describe the uncertainties.

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| There are no uncertainties which have arisen from investigations undertaken by the EAP and by specialists which materially affect this application. |

1. Describe adequacy of the assessment methods used.

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| The guidelines and regulations set out in the NEMA were applied throughout this Basic Assessment process together with rigorous assessment and evaluation. |

1. **IDENTIFICATION, ASSEsSMENT AND RANKING OF IMPACTS to reach the proposed ALTERNATIVES INCLUDING THE preferred alternative within the site**

**Note**: In this section the focus is on the identified issues, impacts and risks that influenced the identification of the alternatives. This includes how aspects of the receiving environment have influenced the selection.

1. List the identified impacts and risks for each alternative.

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| Alternative 1: | **for example, choose from: geology / geohydrological / ecological / socio-economic / heritage and cultural-historical / noise / visual / *etc*.** |
| Alternative 2: | **for example, choose from: geology / geohydrological / ecological / socio-economic / heritage and cultural-historical / noise / visual / *etc*.** |
| Alternative x: | **for example, choose from: geology / geohydrological / ecological / socio-economic / heritage and cultural-historical / noise / visual / *etc*.** |
| No-go Alternative: |  |

1. Describe the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts can be reversed; may cause irreplaceable loss of resources; and can be avoided, managed or mitigated.

The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. (The EAP has to select the relevant impacts identified in blue in the table below for each alternative and repeat the table for each impact and risk).

ALTERNATIVE 2 (Alternative including entire ±10.7ha of vegetation no-go area)

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| **Alternative 2: Including 10.7ha vegetative no-go area** | **Impacts on human health and well-being** |
| **PLANNING, DESIGN AND DEVELOPMENT PHASE** | |
| **Potential impact and risk:** | Potential NOISE AND DUST generation during the construction phase |
| Nature of impact: | As a result of the construction phase of this development noise and dust impacts are expected to occur in the area due to an increase in construction vehicle and truck traffic for the duration of the construction phase while materials are being transported to the site, excavations are being made and vegetative groundcover is being removed. |
| Extent and duration of impact: | **Local and short term** |
| Consequence of impact or risk: | **Potential impact on people’s health and wellbeing** |
| Probability of occurrence: | **Likely** |
| Degree to which the impact may cause irreplaceable loss of resources: | **Dust and noise impacts will not entail irreplaceable loss of resources** |
| Degree to which the impact can be reversed: | **The impact cannot be reversed but can be effectively mitigated** |
| Indirect impacts: | **None** |
| Cumulative impact prior to mitigation: | **Low negative (due to other construction projects in the area)** |
| Significance rating of impact prior to mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Medium** |
| Degree to which the impact can be avoided: | **Construction activities** |
| Degree to which the impact can be managed: | **High** |
| Degree to which the impact can be mitigated: | **High** |
| Proposed mitigation: | 1. **Dust Mitigation:**  * **Dust levels specified in the National Dust Control Regulations (GN 827 of November 2013) may not be exceeded. i.e. dust fall in residential areas may not exceed 600mg/m2/day, measured using reference method ASTM D1739;** * **A Complaints Register must be available at the site office for inspection by the ECO of dust complaints that may have been received.** * **The appointed Environmental Control Officer (ECO) must undertake a site inspection once per week, for the duration of the construction phase, and to produce a short ECO monitoring audit report, auditing on the compliance of the property developer with the conditions of the Environmental Authorisation and the approved EMP.** * **Cleared areas should be provided with a suitable cover as soon as possible, and not left exposed for extended periods of time.** * **Stockpiles of topsoil, spoil material and other material that may generate dust must be protected from wind erosion (e.g. covered with netting, tarpaulin or other appropriate measures.** * **Speed limits must be enforced in all areas, including public roads and private property to limit the levels of dust pollution. The speed limit should be set at 20-40km/h.** * **Dust must be suppressed on access roads and the construction site during dry and or windy periods by the regular application of water or a biodegradable soil stabilisation agent. Water used for this purpose must be used in quantities that will not result in the generation of excessive run off.** * **All vehicles transporting sand need to have tarpaulins covering their loads which will assist in any windblown sand occurring off the trucks.** * **Material loads should be properly covered during transportation.**  1. **Noise Mitigation:**  * **Building is to occur from 8:00am in the morning to 5:00pm in the afternoon only. Building is to occur on weekdays only and not on weekends or public holidays** * **A noise complaints register will be opened.** * **Noise levels must comply with the relevant health & safety regulations and SANS codes and should be monitored by the Health & Safety Officer as necessary and appropriate.** |
| Residual impacts: | **None** |
| Cumulative impact post mitigation: | **Negligible** |
| Significance rating of impact after mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Low** |
| **OPERATIONAL PHASE** | |
| **Potential impact and risk:** | **N/A Dust and Noise impacts are not anticipated during the operational phase** |
| **DECOMMISSIONING AND CLOSURE** **PHASE** | |
| **Potential impact and risk:** | **N/A. The proposed development will not be decommissioned** |

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| **Alternative 2: Including 10.7ha vegetative no-go area** | **Soil and groundwater contamination** |
| **PLANNING, DESIGN AND DEVELOPMENT PHASE** | |
| **Potential impact and risk:** | Potential contamination of soil and groundwater by INAPPROPRIATE WASTE MANAGEMENT PRACTISES |
| Nature of impact: | Contamination of soil and groundwater by INAPPROPRIATE WASTE MANAGEMENT PRACTISES, fuel and oil spills, chemical toilet spills and inappropriate cement mixing. |
| Extent and duration of impact: | **Local and short term** |
| Consequence of impact or risk: | **Potential soil and/or groundwater contamination** |
| Probability of occurrence: | **Likely** |
| Degree to which the impact may cause irreplaceable loss of resources: | **Un-managed spills or other inappropriate waste management operations can entail irreplaceable loss of resources** |
| Degree to which the impact can be reversed: | **The impact cannot be reversed but can be effectively mitigated** |
| Indirect impacts: | **None** |
| Cumulative impact prior to mitigation: | **Medium due to other illegal littering and dumping in the area** |
| Significance rating of impact prior to mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Medium** |
| Degree to which the impact can be avoided: | **Construction activities** |
| Degree to which the impact can be managed: | **High** |
| Degree to which the impact can be mitigated: | **High** |
| Proposed mitigation: | 1. **Liquid Waste:**  * **Liquid dispensing receptacles (e.g. lubricants, diesel, shutter oil etc.) must have drip trays beneath them/beneath the nozzle fixtures.** * **A spill management protocol must be produced by the Contractor and approved by the ECO prior to works commencing on site.** * **Material safety data sheets (MSDS) must be available on site where products are stored, so that in the event of an incident, the correct action can be taken.** * **Depending on the types of materials stored on site, suitable product recovery materials (such as Spillsorb or Drizit products) must be readily available.** * **A designated, bunded area is to be set aside for vehicle washing and maintenance (if required). Materials caught in this bunded area must be disposed of to a suitable waste site or as directed by the Principal Agent. Vehicles should ideally be washed at their storage yard as opposed to on site.** * **Cement contaminated water must be fed to a container, neutralised and suitably disposed of (e.g. sent to a suitable landfill site). In the latter case, chain of custody documentation must be provided to ensure a suitable end recipient. The latter must be kept with the environmental register.** * **The Contractor shall ensure that any wastewater generated during construction activities feeds to a suitable containment area such as a container or lined sedimentation pond prior to disposal. This pond or ponds must be allowed to dry out on a regular basis to allow for solid material removal. The wastewater must be disposed of in a suitable manner (possibly to the sewer system following local authority approval) and must not be directed to a storm water drain.** * **Storm water must be managed in such a way that no overland flow is possible onto any area of the site which could contain potential contaminants (such as concrete mixing areas, material and hazardous storage areas from any adjacent area).**  1. **Solid Waste:**  * **Waste must be categorised by the Contractor and disposed of in a suitable manner into separate waste streams (this includes general, hazardous and recyclable waste).** * **The Contractor must provide an adequate number of waste receptacles for general waste at points around the construction site as well as for hazardous and recyclable waste.** * **Waste is to be collected either by the Municipality or via a licensed waste disposal Contractor.** * **The frequency of collections/emptying of waste receptacles will be of such a frequency that waste receptacles do not overflow.** * **Particular care shall be taken with the disposal of materials that could be wind-borne or waterborne to ensure that the release of these materials is minimised (the latter is a requirement for hazardous waste).** * **The use of netting covers or similar sealed containers must be implemented as and when required by the ECO.** * **Areas demarcated for specific activities including food consumption must have suitable waste receptacles provided.** * **Wherever possible recycling must be carried out.** * **No dumping within the surrounding area is to be permitted.** * **No burning of solid waste is allowed.** * **All material used by the Contractor during the construction phase shall be managed in such a way that it does not cause pollution, or that it minimises pollution. In the event of a spillage, the Contractor should have suitably trained personnel who can correctly clean up any spillage in an efficient and environmentally sound manner.**  1. **Hazardous Waste:**  * **Storage areas that contain hazardous substances must be covered and bunded with an approved impermeable liner or have some form of secondary containment.** * **The Contractor shall keep MSDS on-site for all potentially hazardous materials used.** * **Suitably trained personnel shall be available on the site during working hours so that in the event of human exposure to any hazardous materials that the correct first aid actions are taken. This training should also include environmental spill containment procedures** * **Spills in bunded areas must be cleaned up, removed and disposed of safely from the bunded area as soon after detection as possible to minimize pollution risk and reduced bunding capacity.** * **Chain of Custody documentation must be provided for any hazardous substances disposed of as proof of end recipient.**  1. **Cement/concrete mixing areas**   **Cement powder has a high alkalinity, which can contaminate and dramatically affect both soil and groundwater. The following recommendations are made:**   * **Mixing areas must be defined on site and approved by the ECO.** * **No mixing of cement is allowed on bare soil and a lined bund or bunded portable mixer must be used. The use of ready mix concrete must be considered.** * **Cement bags must be disposed of in demarcated hazardous waste receptacles and the used bags disposed of via the hazardous substances waste stream.** * **Excess or spilled concrete must be disposed of to a suitable landfill site, with chain of custody documentation provided.**  1. **Ablution Facilities**  * **Chemical toilet facilities are to be supplied and managed by the Contractor. These are to be located in a specific area agreed to by the ECO prior to placement and to be used by all personnel.** * **The number of chemical/portable toilets required on site (i.e. the ratio of persons working on site to number of toilets) must be determined in conjunction with the Nelson Mandela Bay Municipality prior to works starting on site. This is typically one toilet per 15 workers.** * **These toilets are to be secured by at least four separate cables or guy ropes to ensure that they are not knocked over or blown over by the wind.** |
| Residual impacts: | **None** |
| Cumulative impact post mitigation: | **Negligible** |
| Significance rating of impact after mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Low** |
| **OPERATIONAL PHASE** | |
| **Potential impact and risk:** | **N/A. No impacts on soil and groundwater are anticipated during the operational phase.** |
| **DECOMMISSIONING AND CLOSURE** **PHASE** | |
| **Potential impact and risk:** | **N/A. The proposed development will not be decommissioned** |

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| **Alternative 2: Including 10.7ha vegetative no-go area** | **Ecological impact – permanent loss of indigenous vegetation** |
| **PLANNING, DESIGN AND DEVELOPMENT PHASE** | |
| **Potential impact and risk:** | **Loss of Cape Flats Dune Strandveld and ecological processes due to vegetation clearing during construction phase** |
| Nature of impact: | **Loss of Cape Flats Dune Strandveld and ecological processes due to vegetation clearing during construction phase** |
| Extent and duration of impact: | **Local and permanent** |
| Consequence of impact or risk: | **Loss of endangered vegetation and disturbance of ecological processes** |
| Probability of occurrence: | **Definite** |
| Degree to which the impact may cause irreplaceable loss of resources: | **Irreplaceable** |
| Degree to which the impact can be reversed: | **Irreversible** |
| Indirect impacts: | **None** |
| Cumulative impact prior to mitigation: | **High** |
| Significance rating of impact prior to mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **High Negative** |
| Degree to which the impact can be avoided: | **Cannot be avoided** |
| Degree to which the impact can be managed: | **Medium – High** |
| Degree to which the impact can be mitigated: | **Medium – High** |
| Proposed mitigation: | **As mitigation, a no-go area of approximately 10,7 ha will be maintained on site** |
| Residual impacts: | **None** |
| Cumulative impact post mitigation: | **High (activities which entail the clearing of this endangered vegetation type is on-going and the cumulative impact on the broader scale therefore remains high, regardless of the fact that a significant portion of vegetation on the site is proposed to be maintained)** |
| Significance rating of impact after mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Medium- High Negative (given that a large majority of the vegetation on the site, approximately 10,7ha, will remain)** |
| **OPERATIONAL PHASE** | |
| **Potential impact and risk:** | **The operational phase of the development will entail the maintenance of this ‘reserved’ portion of endangered vegetation on site of approximately 10.7ha.**  **Should the maintenance and upkeep of this ‘reserved’ portion of endangered vegetation not be undertaken effectively, which is highly possible given the high degree of littering, dumping and other illegal activities in the area, this will negatively impact on this portion of vegetation.**  **The impacts will then be similar to those listed above for the construction phase with the only exception being that the proposed mitigation would be the effective maintenance and upkeep of this portion of vegetation.** |
| **DECOMMISSIONING AND CLOSURE** **PHASE** | |
| **Potential impact and risk:** | **N/A. The development will not be decommissioned.** |

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| **Alternative 2: Including 10.7ha vegetative no-go area** | **Socio-economic Impacts** |
| **PLANNING, DESIGN AND DEVELOPMENT PHASE** | |
| **Potential impact and risk:** | **Employment opportunities**  **Housing opportunities** |
| Nature of impact: | **Job creation during the construction phase** |
| Extent and duration of impact: | **Local to regional and medium term** |
| Consequence of impact or risk: | **Reducing poverty and improvement on quality of life** |
| Probability of occurrence: | **Highly probable** |
| Degree to which the impact may cause irreplaceable loss of resources: | **Entails no loss of resources** |
| Degree to which the impact can be reversed: | **No need to be reversed as it is a positive impact** |
| Indirect impacts: | **None** |
| Cumulative impact prior to mitigation: | **Medium Positive** |
| Significance rating of impact prior to mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Medium Positive** |
| Degree to which the impact can be avoided: | **No need to avoid impact as it is a positive impact** |
| Degree to which the impact can be managed: | **Low** |
| Degree to which the impact can be mitigated: | **Low** |
| Proposed mitigation: | * **The project must aim to appoint local labour during the construction phase** * **Local SMME’s must be used for construction where possible** |
| Residual impacts: | **None** |
| Cumulative impact post mitigation: | **Medium Positive** |
| Significance rating of impact after mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Medium Positive** |
| **OPERATIONAL PHASE** | |
| **Potential impact and risk:** | **Reduced economic opportunities**  **Reduced housing opportunities** |
| Nature of impact: | **Reduced economic opportunities due to reduction in total footprint of development (housing and business opportunities) due to total no-go area of vegetation amounting to 10,7ha**  **Reduced housing opportunities due to reduction in total footprint of development (housing and business opportunities) due to total no-go area of vegetation amounting to 10,7ha** |
| Extent and duration of impact: | **Local to regional and long term** |
| Consequence of impact or risk: | **Reduced poverty alleviation and improvement on quality of life** |
| Probability of occurrence: | **Probable** |
| Degree to which the impact may cause irreplaceable loss of resources: | **No loss** |
| Degree to which the impact can be reversed: | **Medium to High Negative. This impact can be reversed with the reduction of the no-go vegetation area of 10.7ha which will in turn implicate the increase in total development footprint** |
| Indirect impacts: | **None** |
| Cumulative impact prior to mitigation: | **Medium-High. Unemployment and compromised quality of life is a national problem.** |
| Significance rating of impact prior to mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Medium to High Negative.** |
| Degree to which the impact can be avoided: | **Medium-High. This impact can be avoided with the reduction of the no-go vegetation area of 10.7ha which will in turn implicate the increase in total development footprint** |
| Degree to which the impact can be managed: | **Same as the above** |
| Degree to which the impact can be mitigated: | **Same as the above** |
| Proposed mitigation: | **Same as the above** |
| Residual impacts: | **None** |
| Cumulative impact post mitigation: | **Medium – High.** |
| Significance rating of impact after mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Medium.** |
| **DECOMMISSIONING AND CLOSURE** **PHASE** | |
| **Potential impact and risk:** | **N/A. The development will not be decommissioned.** |

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| **Alternative 2: Including 10.7ha vegetative no-go area** | **Visual Impact** |
| **PLANNING, DESIGN AND DEVELOPMENT PHASE** | |
| **Potential impact and risk:** | **Change in ‘sense of place’ of the area** |
| Nature of impact: | **The site will be transformed from a vacant site to a construction site** |
| Extent and duration of impact: | **Local and short term** |
| Consequence of impact or risk: | **None** |
| Probability of occurrence: | **Probable** |
| Degree to which the impact may cause irreplaceable loss of resources: | **No loss of resources** |
| Degree to which the impact can be reversed: | **Reversible** |
| Indirect impacts: | **None** |
| Cumulative impact prior to mitigation: | **Low negative** |
| Significance rating of impact prior to mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Low negative** |
| Degree to which the impact can be avoided: | **Cannot be avoided** |
| Degree to which the impact can be managed: | **Low** |
| Degree to which the impact can be mitigated: | **Low** |
| Proposed mitigation: | **General good practice must be implemented during construction.**  **Good housekeeping must be maintained for the duration of the construction phase.**  **The site is to be kept neat and tidy at all times.** |
| Residual impacts: | **None** |
| Cumulative impact post mitigation: | **Negligible** |
| Significance rating of impact after mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Negligible** |
| **OPERATIONAL PHASE** | |
| **Potential impact and risk:** | **Even though the visual nature of the site will change from a vacant site to a fully developed residential development, this is not regarded as a visual impact as it will be in line with the surrounding area and sense of place, given that the site is surrounded by similar developments.** |
| **DECOMMISSIONING AND CLOSURE** **PHASE** | |
| **Potential impact and risk:** | **N/A. The development will not be decommissioned.** |

ALTERNATIVE 4: PREFERRED ALTERNATIVE (including a 40m buffer area long the Eskom servitude amounting to ±2.7ha in total)

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| **Alternative 4: Preferred Alternative including 2.7ha vegetative no-go area** | **Impacts on human health and well-being** |
| **PLANNING, DESIGN AND DEVELOPMENT PHASE** | |
| **Potential impact and risk:** | Potential NOISE AND DUST generation during the construction phase |
| Nature of impact: | As a result of the construction phase of this development noise and dust impacts are expected to occur in the area due to an increase in construction vehicle and truck traffic for the duration of the construction phase while materials are being transported to the site, excavations are being made and vegetative groundcover is being removed. |
| Extent and duration of impact: | **Local and short term** |
| Consequence of impact or risk: | **Potential impact on people’s health and wellbeing** |
| Probability of occurrence: | **Likely** |
| Degree to which the impact may cause irreplaceable loss of resources: | **Dust and noise impacts will not entail irreplaceable loss of resources** |
| Degree to which the impact can be reversed: | **The impact cannot be reversed but can be effectively mitigated** |
| Indirect impacts: | **None** |
| Cumulative impact prior to mitigation: | **Low negative (due to other construction projects in the area)** |
| Significance rating of impact prior to mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Medium** |
| Degree to which the impact can be avoided: | **Construction activities** |
| Degree to which the impact can be managed: | **High** |
| Degree to which the impact can be mitigated: | **High** |
| Proposed mitigation: | 1. **Dust Mitigation:**  * **Dust levels specified in the National Dust Control Regulations (GN 827 of November 2013) may not be exceeded. i.e. dust fall in residential areas may not exceed 600mg/m2/day, measured using reference method ASTM D1739;** * **A Complaints Register must be available at the site office for inspection by the ECO of dust complaints that may have been received.** * **The appointed Environmental Control Officer (ECO) must undertake a site inspection once per week, for the duration of the construction phase, and to produce a short ECO monitoring audit report, auditing on the compliance of the property developer with the conditions of the Environmental Authorisation and the approved EMP.** * **Cleared areas should be provided with a suitable cover as soon as possible, and not left exposed for extended periods of time.** * **Stockpiles of topsoil, spoil material and other material that may generate dust must be protected from wind erosion (e.g. covered with netting, tarpaulin or other appropriate measures.** * **Speed limits must be enforced in all areas, including public roads and private property to limit the levels of dust pollution. The speed limit should be set at 20-40km/h.** * **Dust must be suppressed on access roads and the construction site during dry and or windy periods by the regular application of water or a biodegradable soil stabilisation agent. Water used for this purpose must be used in quantities that will not result in the generation of excessive run off.** * **All vehicles transporting sand need to have tarpaulins covering their loads which will assist in any windblown sand occurring off the trucks.** * **Material loads should be properly covered during transportation.**  1. **Noise Mitigation:**  * **Building is to occur from 8:00am in the morning to 5:00pm in the afternoon only. Building is to occur on weekdays only and not on weekends or public holidays** * **A noise complaints register will be opened.** * **Noise levels must comply with the relevant health & safety regulations and SANS codes and should be monitored by the Health & Safety Officer as necessary and appropriate.** |
| Residual impacts: | **None** |
| Cumulative impact post mitigation: | **Negligible** |
| Significance rating of impact after mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Low** |
| **OPERATIONAL PHASE** | |
| **Potential impact and risk:** | **N/A Dust and Noise impacts are not anticipated during the operational phase** |
| **DECOMMISSIONING AND CLOSURE** **PHASE** | |
| **Potential impact and risk:** | **N/A. The proposed development will not be decommissioned** |

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| **Alternative 4: Preferred Alternative including 2.7ha vegetative no-go area** | **Soil and groundwater contamination** |
| **PLANNING, DESIGN AND DEVELOPMENT PHASE** | |
| **Potential impact and risk:** | Potential contamination of soil and groundwater by INAPPROPRIATE WASTE MANAGEMENT PRACTISES |
| Nature of impact: | Contamination of soil and groundwater by INAPPROPRIATE WASTE MANAGEMENT PRACTISES, fuel and oil spills, chemical toilet spills and inappropriate cement mixing. |
| Extent and duration of impact: | **Local and short term** |
| Consequence of impact or risk: | **Potential soil and/or groundwater contamination** |
| Probability of occurrence: | **Likely** |
| Degree to which the impact may cause irreplaceable loss of resources: | **Un-managed spills or other inappropriate waste management operations can entail irreplaceable loss of resources** |
| Degree to which the impact can be reversed: | **The impact cannot be reversed but can be effectively mitigated** |
| Indirect impacts: | **None** |
| Cumulative impact prior to mitigation: | **Medium due to other illegal littering and dumping in the area** |
| Significance rating of impact prior to mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Medium** |
| Degree to which the impact can be avoided: | **Construction activities** |
| Degree to which the impact can be managed: | **High** |
| Degree to which the impact can be mitigated: | **High** |
| Proposed mitigation: | 1. **Liquid Waste:**  * **Liquid dispensing receptacles (e.g. lubricants, diesel, shutter oil etc.) must have drip trays beneath them/beneath the nozzle fixtures.** * **A spill management protocol must be produced by the Contractor and approved by the ECO prior to works commencing on site.** * **Material safety data sheets (MSDS) must be available on site where products are stored, so that in the event of an incident, the correct action can be taken.** * **Depending on the types of materials stored on site, suitable product recovery materials (such as Spillsorb or Drizit products) must be readily available.** * **A designated, bunded area is to be set aside for vehicle washing and maintenance (if required). Materials caught in this bunded area must be disposed of to a suitable waste site or as directed by the Principal Agent. Vehicles should ideally be washed at their storage yard as opposed to on site.** * **Cement contaminated water must be fed to a container, neutralised and suitably disposed of (e.g. sent to a suitable landfill site). In the latter case, chain of custody documentation must be provided to ensure a suitable end recipient. The latter must be kept with the environmental register.** * **The Contractor shall ensure that any wastewater generated during construction activities feeds to a suitable containment area such as a container or lined sedimentation pond prior to disposal. This pond or ponds must be allowed to dry out on a regular basis to allow for solid material removal. The wastewater must be disposed of in a suitable manner (possibly to the sewer system following local authority approval) and must not be directed to a storm water drain.** * **Storm water must be managed in such a way that no overland flow is possible onto any area of the site which could contain potential contaminants (such as concrete mixing areas, material and hazardous storage areas from any adjacent area).**  1. **Solid Waste:**  * **Waste must be categorised by the Contractor and disposed of in a suitable manner into separate waste streams (this includes general, hazardous and recyclable waste).** * **The Contractor must provide an adequate number of waste receptacles for general waste at points around the construction site as well as for hazardous and recyclable waste.** * **Waste is to be collected either by the Municipality or via a licensed waste disposal Contractor.** * **The frequency of collections/emptying of waste receptacles will be of such a frequency that waste receptacles do not overflow.** * **Particular care shall be taken with the disposal of materials that could be wind-borne or waterborne to ensure that the release of these materials is minimised (the latter is a requirement for hazardous waste).** * **The use of netting covers or similar sealed containers must be implemented as and when required by the ECO.** * **Areas demarcated for specific activities including food consumption must have suitable waste receptacles provided.** * **Wherever possible recycling must be carried out.** * **No dumping within the surrounding area is to be permitted.** * **No burning of solid waste is allowed.** * **All material used by the Contractor during the construction phase shall be managed in such a way that it does not cause pollution, or that it minimises pollution. In the event of a spillage, the Contractor should have suitably trained personnel who can correctly clean up any spillage in an efficient and environmentally sound manner.**  1. **Hazardous Waste:**  * **Storage areas that contain hazardous substances must be covered and bunded with an approved impermeable liner or have some form of secondary containment.** * **The Contractor shall keep MSDS on-site for all potentially hazardous materials used.** * **Suitably trained personnel shall be available on the site during working hours so that in the event of human exposure to any hazardous materials that the correct first aid actions are taken. This training should also include environmental spill containment procedures** * **Spills in bunded areas must be cleaned up, removed and disposed of safely from the bunded area as soon after detection as possible to minimize pollution risk and reduced bunding capacity.** * **Chain of Custody documentation must be provided for any hazardous substances disposed of as proof of end recipient.**  1. **Cement/concrete mixing areas**   **Cement powder has a high alkalinity, which can contaminate and dramatically affect both soil and groundwater. The following recommendations are made:**   * **Mixing areas must be defined on site and approved by the ECO.** * **No mixing of cement is allowed on bare soil and a lined bund or bunded portable mixer must be used. The use of ready mix concrete must be considered.** * **Cement bags must be disposed of in demarcated hazardous waste receptacles and the used bags disposed of via the hazardous substances waste stream.** * **Excess or spilled concrete must be disposed of to a suitable landfill site, with chain of custody documentation provided.**  1. **Ablution Facilities**  * **Chemical toilet facilities are to be supplied and managed by the Contractor. These are to be located in a specific area agreed to by the ECO prior to placement and to be used by all personnel.** * **The number of chemical/portable toilets required on site (i.e. the ratio of persons working on site to number of toilets) must be determined in conjunction with the Nelson Mandela Bay Municipality prior to works starting on site. This is typically one toilet per 15 workers.** * **These toilets are to be secured by at least four separate cables or guy ropes to ensure that they are not knocked over or blown over by the wind.** |
| Residual impacts: | **None** |
| Cumulative impact post mitigation: | **Negligible** |
| Significance rating of impact after mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Low** |
| **OPERATIONAL PHASE** | |
| **Potential impact and risk:** | **N/A. No impacts on soil and groundwater are anticipated during the operational phase.** |
| **DECOMMISSIONING AND CLOSURE** **PHASE** | |
| **Potential impact and risk:** | **N/A. The proposed development will not be decommissioned** |

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| **Alternative 4: Preferred Alternative including 2.7ha vegetative no-go area** | **Ecological impact – permanent loss of indigenous vegetation** |
| **PLANNING, DESIGN AND DEVELOPMENT PHASE** | |
| **Potential impact and risk:** | **Loss of Cape Flats Dune Strandveld and ecological processes due to vegetation clearing during construction phase** |
| Nature of impact: | **Loss of Cape Flats Dune Strandveld and ecological processes due to vegetation clearing during construction phase** |
| Extent and duration of impact: | **Local and permanent** |
| Consequence of impact or risk: | **Loss of endangered vegetation and disturbance of ecological processes** |
| Probability of occurrence: | **Definite** |
| Degree to which the impact may cause irreplaceable loss of resources: | **Irreplaceable** |
| Degree to which the impact can be reversed: | **Irreversible** |
| Indirect impacts: | **None** |
| Cumulative impact prior to mitigation: | **High Negative** |
| Significance rating of impact prior to mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **High Negative** |
| Degree to which the impact can be avoided: | **Cannot be avoided** |
| Degree to which the impact can be managed: | **Low** |
| Degree to which the impact can be mitigated: | **Low** |
| Proposed mitigation: | **Maintain a 40 m wide ecological buffer along the Eskom servitude.** |
| Residual impacts: | **None** |
| Cumulative impact post mitigation: | **High (activities which entail the clearing of this endangered vegetation type is on-going and the cumulative impact on the broader scale is therefore high** |
| Significance rating of impact after mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **High Negative (given that a large majority of the vegetation on the site, approximately 8ha, will be removed)** |
| **OPERATIONAL PHASE** | |
| **Potential impact and risk:** | **The operational phase of the development will entail the maintenance of this ‘reserved’ portion of endangered vegetation on site of approximately 2.7ha.**  **Should the maintenance and upkeep of this ‘reserved’ portion of endangered vegetation not be undertaken effectively, the high degree of littering, dumping and other illegal activities in the area, this will negatively impact on this portion of vegetation. Given that the no-go area is considerably smaller in size for this preferred alternative it is possible that this no-go area could be maintained and managed to a satisfactory degree.**  **The impacts will then be similar to those listed above for the construction phase with the only exception being that the proposed mitigation would be the effective maintenance and upkeep of this portion of vegetation.** |
| **DECOMMISSIONING AND CLOSURE** **PHASE** | |
| **Potential impact and risk:** | **N/A. The development will not be decommissioned.** |

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| **Alternative 2: Including 10.7ha vegetative no-go area** | **Socio-economic Impacts** |
| **PLANNING, DESIGN AND DEVELOPMENT PHASE** | |
| **Potential impact and risk:** | **Employment opportunities**  **Housing opportunities** |
| Nature of impact: | **Job creation during the construction phase** |
| Extent and duration of impact: | **Local to regional and medium term** |
| Consequence of impact or risk: | **Reducing poverty and improvement on quality of life** |
| Probability of occurrence: | **Highly probable** |
| Degree to which the impact may cause irreplaceable loss of resources: | **Entails no loss of resources** |
| Degree to which the impact can be reversed: | **No need to be reversed as it is a positive impact** |
| Indirect impacts: | **None** |
| Cumulative impact prior to mitigation: | **Medium Positive** |
| Significance rating of impact prior to mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Medium Positive** |
| Degree to which the impact can be avoided: | **No need to avoid impact as it is a positive impact** |
| Degree to which the impact can be managed: | **Low** |
| Degree to which the impact can be mitigated: | **Low** |
| Proposed mitigation: | * **The project must aim to appoint local labour during the construction phase** * **Local SMME’s must be used for construction where possible** |
| Residual impacts: | **None** |
| Cumulative impact post mitigation: | **Medium Positive** |
| Significance rating of impact after mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Medium Positive** |
| **OPERATIONAL PHASE** | |
| **Potential impact and risk:** | **Increased economic opportunities**  **Increased housing opportunities** |
| Nature of impact: | **Increased economic opportunities due to increase in total footprint of development (housing and business opportunities) due to total no-go area of vegetation amounting to 2,7ha**  **Increased housing opportunities due to increase in total footprint of development (housing and business opportunities) due to total no-go area of vegetation amounting to 2,7ha** |
| Extent and duration of impact: | **Local to regional and long term** |
| Consequence of impact or risk: | **Poverty alleviation and improvement on quality of life** |
| Probability of occurrence: | **Probable** |
| Degree to which the impact may cause irreplaceable loss of resources: | **No loss** |
| Degree to which the impact can be reversed: | **No need to be reversed as it is a positive impact** |
| Indirect impacts: | **None** |
| Cumulative impact prior to mitigation: | **None** |
| Significance rating of impact prior to mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **High Positive** |
| Degree to which the impact can be avoided: | **No need to be avoided as this is a positive impact** |
| Degree to which the impact can be managed: | **Same as the above** |
| Degree to which the impact can be mitigated: | **Same as the above** |
| Proposed mitigation: | **Same as the above** |
| Residual impacts: | **None** |
| Cumulative impact post mitigation: | **None** |
| Significance rating of impact after mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **High positive** |
| **DECOMMISSIONING AND CLOSURE** **PHASE** | |
| **Potential impact and risk:** | **N/A. The development will not be decommissioned.** |

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| **Alternative 2: Including 10.7ha vegetative no-go area** | **Visual Impact** |
| **PLANNING, DESIGN AND DEVELOPMENT PHASE** | |
| **Potential impact and risk:** | **Change in ‘sense of place’ of the area** |
| Nature of impact: | **The site will be transformed from a vacant site to a construction site** |
| Extent and duration of impact: | **Local and short term** |
| Consequence of impact or risk: | **None** |
| Probability of occurrence: | **Probable** |
| Degree to which the impact may cause irreplaceable loss of resources: | **No loss of resources** |
| Degree to which the impact can be reversed: | **Reversible** |
| Indirect impacts: | **None** |
| Cumulative impact prior to mitigation: | **Low negative** |
| Significance rating of impact prior to mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Low negative** |
| Degree to which the impact can be avoided: | **Cannot be avoided** |
| Degree to which the impact can be managed: | **Low** |
| Degree to which the impact can be mitigated: | **Low** |
| Proposed mitigation: | **General good practice must be implemented during construction.**  **Good housekeeping must be maintained for the duration of the construction phase.**  **The site is to be kept neat and tidy at all times.** |
| Residual impacts: | **None** |
| Cumulative impact post mitigation: | **Negligible** |
| Significance rating of impact after mitigation  (e.g. Low, Medium, Medium-High, High, or Very-High) | **Negligible** |
| **OPERATIONAL PHASE** | |
| **Potential impact and risk:** | **Even though the visual nature of the site will change from a vacant site to a fully developed residential development, this is not regarded as a visual impact as it will be in line with the surrounding area and sense of place, given that the site is surrounded by similar developments.** |
| **DECOMMISSIONING AND CLOSURE** **PHASE** | |
| **Potential impact and risk:** | **N/A. The development will not be decommissioned.** |

NO-GO ALTERNATIVE

**MEDIUM NEGATIVE EOCLOGICAL IMPACT**

The no-go option entails the maintaining of the status quo of the site. In this case, the no-go option would mean that the development will not take place and that there will consequently be no clearance of vegetation cover for the sake of development.

The site will remain as is, undeveloped.

Deterioration of the vegetation is however probable due to the alien invasive species and illegal activities such as littering, dumping and the establishment of informal housing on the site.

**HIGH NEGATIVE SOCIO\_ECONOMIC IMPACT**

The no-go alternative will fail to address the dire need for housing in the Blue Downs – as well as larger City of Cape Town area.

Given the scale of the proposed housing development, a considerable economic contribution to the local community in the form of employment opportunities will also be foregone should the development not take place.

Should the property remain vacant it will also most likely attract vagrancy, littering and other undesirable activities thereby compromising the safety qualify of life of the local community.

**Note**: The EAP may decide to include this section as Appendix J to the BAR.

1. Provide a summary of the site selection matrix.

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| The only site that was considered was Erf 1901, Blue Downs that is owned by COCT and has been earmarked for housing. |

1. Outcome of the site selection matrix.

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| Same as the above. |

1. **Specialist inputs/studies, FINDINGS AND RECOMMENDATIONS**

**Note:** Specialist inputs/studies must be attached to this report as **Appendix G** andmust comply with the content requirements set out inAppendix 6 of the EIA Regulations, 2014(as amended). Also take into account the Department’s Circular EADP 0028/2014 (dated 9 December 2014) on the “*One Environmental Management System*” and the EIA Regulations, 2014, any subsequent Circulars, and guidelines available on the Department’s website ([**http://www.westerncape.gov.za/eadp**](http://www.westerncape.gov.za/eadp)).

Provide a summary of the findings and impact management measures identified in any specialist report and an indication of how these findings and recommendations have been included in the BAR.

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| ENVIRONMENTAL ASPECTS AND POTENTIAL IMPACTS ASSOCIATED WITH THE ALTERNATIVES   |  | | --- | | ***Refer to Botanical Site Screening and Botanical Assessment, Paul Emms – Bergwind, June 2018 and October 2018 as included in Appendix G*** |  |  | | --- | | ***Refer to Freshwater Site Scans, Dean Ollis – Freshwater Consulting Group, June 2018 as well as October 2018 included in Appendix G*** |  |  | | --- | | ***Refer to Preliminary Geotechnical Assessment, SRK Consulting, March 2018 as included in Appendix G*** |  |  | | --- | | ***Refer to Civil Engineering Report, Nadeson Consulting Services, October 2018 as included in Appendix G*** |  |  | | --- | | ***Refer to Heritage Notice of Intent to Develop, Lita Webley – Perception Planning, May 2018 as included in Appendix G as well as HWC feedback attached in Appendix G*** |  |  | | --- | | ***Refer to draft Traffic Impact Assessment Report by Sturgeon Consulting Engineers, October 2018 as included in Appendix G*** |   **GEOGRAPHICAL, GEOLOGICAL AND PHYSICAL ASPECTS**  According to the Civil Engineering Scoping report (Nadeson, October 2018) the site is divided by a watershed that runs from a high point close to the northern boundary of the site with falls in the region of 2.5%. The site however also has sections of undulating terrain that create localised low points.  These areas will require shaping (cut to fill) to prevent ponding/flooding. DCP results have indicated that portions of the site have very loosely compacted soils t depths of roughly 0.5m. In these areas the loose soils will be cut, filled and compacted in layers to achieve the required density. Shaping of plots with surplus cut material will be required to prevent the costs associated with spoiling the material.  **Regional Geology**  According to the preliminary Geotechnical Site Assessment Report (SRK, March 2018) previous investigations undertaken in the area indicate that the site is likely to be covered by a layer of Aeolian sand.  The thickness of the Aeolian sand is likely to vary depending on the height and extent of the former sand dunes. It is expected that the Aeolian sand thicknesses is likely to be in the order of 1 m to 2 m (dependant on the nature of the former sand dunes).  In general, the soil profile is likely to be characterised by an upper layer of fine to medium sand of Aeolian origin (windblown). The Aeolian sand is likely to be underlain by a thin layer of clayey fine sand (inferred to be reworked Malmesbury clay). With increasing depth, the underlying soil is expected to comprise of clayey silt derived from the in situ weathering/decomposition of Malmesbury Group shale. No rock outcrop is expected to be present at the site, and it is unlikely that bedrock will be present within 3 m of the surface.  The near-surface soils are likely to consist of granular fine to medium sand of Aeolian origin. The extent to which the site may have been previously levelled is unknown (original topography may have been characterised by an undulating sand dune topography).  **ECOLOGICAL ASPECTS**  **Freshwater**  The June 2018 freshwater site scan by the Freshwater Consulting Group (FCG) concluded that the areas mapped as wetlands on the site by the City of Cape Town's Wetlands Map (highlighted in green in the map in Figure 7 below) are NOT wetlands and that the areas we identified (in blue) as potential wetlands are not naturally-occurring wetlands.  A possible dune slack wetland area was observed along a short section of the north-western boundary of the site, extending from the servitude on the outside of that boundary.  The FCG were consequently appointed to conduct a scan of the portion of the Eskom servitude and N7 Road Reserve located along the north-western boundary of the site. The purpose of this site scan was to confirm whether any wetlands are present in the dune slack areas within the corridor of undeveloped land along the north-western boundary of the site.  The overall conclusion of the follow-up investigation and assessment of the servitude was that there are no wetlands associated with the dune slack areas in the portion of the Eskom servitude and N7 Road Reserve situated along the north-western boundary of the proposed development site.  As such, no wetlands have been identified on or immediately adjacent to Erf 1901.  **Botanical**  The findings of this study show that the study area supports about 40 ha of mostly degraded but ENDANGERED Cape Flats Dune Strandveld, with a small portion of semi-intact vegetation and even smaller portion of intact vegetation. The question, within the context of the proposed development, is whether or not the remnant vegetation should be conserved and restored in the perpetuity. Two options were considered in this regard. The first option that was given consideration was to set aside a representative sample vegetation in the north-western sector of the site. Although some of the remaining areas of the site support patches of natural vegetation, they are regarded as being of poor ecological condition as well as occurring where long-term protection is not viable since the disturbance regime is high. Consideration was thus given to conserve this portion since it is representative sample of habitat and fortuitously happens to abut the Eskom servitude that contains ecologically intact vegetation and a remnant dune system that links natural areas to the north and south. This first option is problematic from a development point of view since the project, by virtue of being a low-cost housing development, seeks to maximize all of the available space provided by the undeveloped land. A second option was thus considered that places greater emphasis on protecting the Eskom servitude. The second option takes into consideration (a) the dire need to service the needs of communities with housing versus (b) a responsibility to ensure persistence of critical habitats. Consideration is given to rather protecting the Eskom servitude with an ecological buffer. It is emphasized that from a botanical perspective the No-Go buffer area is not sustainable without the long-term protection of the Eskom servitude since the intention is to buffer the existing ecological link formed by the servitude (maintaining the spatial ecological link between the CBAs to the north and south). The recommended 40 m wide buffer area is indicated in Figure 18B. This area should be protected from dumping and general disturbance in the event of the development being approved.  **HISTORICAL ASPECTS**    The proposed residential development on Erf 1901, Blue Downs will not result in any significant impacts to heritage resources.  As such we recommend that no further heritage-related studies are required in relation to the proposed development of Blueberry Hill on Erf 1901, Blue Downs.  The NID was submitted to HWC and a response was received from HWC, as included in **Appendix G,** confirming that no further work is required in terms of heritage impacts.  **SOCIO-ECONOMIC ASPECTS**  Umtha Strategy Planning and Development has been appointed by COCT Human Settlement Implementation as Beneficiary Administration and Social Facilitators for the Blueberry Hill housing project.  Umtha is responsible for the effective coordination and management of effective and transparent public participation and socio-economic concerns related to the project such as housing beneficiary management and job creation during the project.  As part of Umtha’s scope of work in this project the following duties will be undertaken:  **Beneficiary Administrator**   * Identify potential beneficiaries in terms of the City’s allocation policy with relevant stakeholders under guidance of the City’s Project Management and external Project Manager. * HSS Subsidy Registration and capture of beneficiaries * As well as other related tasks in completing the above   **Social/Community Facilitator**   * Will form part of the project steering committee and be the liaison person between project matters and the community * Ensure effective public participation and transparency regarding beneficiary administration including preparation of public meetings etc.   Once the initial beneficiary meetings and public meetings, as specified above have been undertaken, there will be a clearer indication of the more detailed and specific socio-economic impacts and concerns.  As such the current pre-application BAR at this stage contains only general socio-economic impacts and an assessment of these. A detailed socio-economic impact assessment will be undertaken in the final BAR, once the most pertinent socio-economic impacts and concerns have come to light and mitigation measures have been identified.  **TRAFFIC**  From the report, the following are recommended:   * That the Forest Drive/ Blue Downs Way/ Bobs Way intersection is upgraded to a two-lane roundabout with widening at all approaches. * The Blue Downs Way/ Hindle Road/ Mars Street (Raymond Ackerman Ave) is upgraded to a two-lane roundabout with widening on all approaches to accommodate additional lanes. * The Eersriv Way/ Entrance 1 intersection becomes a left-in, left-out (LILO) only and the median break is closed. * The Forest Drive/ Entrance 2 intersection is upgraded to roundabout with an inscribed diameter of at least 32m. * The detail design of all the accesses to the Blueberry Hill development must be approved by the relevant road authority. * A portion of the development contributions should be used for the upgrading/construction of bicycle lanes and/or sidewalks in the vicinity of the development. This should be approved/confirmed by the CoCT’s TDA: Head of   Universal Access & Non-Motorised Transport.  This report has shown that the proposed development can be accommodated by the adjacent transport network, provided the recommendations presented in the report are implemented. From a traffic engineering perspective, the application for this development is supported. |

1. **ENVIRONMENTAL IMPACT STATEMENT**

Provide an environmental impact statement of the following:

|  |  |  |
| --- | --- | --- |
| 1. A summary of the key findings of the EIA. | | |
| Same as the above. | | |
| 1. Has a map of appropriate scale been provided, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers? | **YES** | NO |
| 1. A summary of the positive and negative impacts that the proposed development and alternatives will cause in the environment and community. | | |
| There is a dire need for housing in the South African context.  The proposed development will allow for a variety of housing opportunities including FLISP (Finance Linked Individual Subsidy Programme), BNG (Breaking New Ground) and Incremental Housing.  The main emphasis will be on high density residential opportunities and an estimated 3932 residential opportunities can be created on the property. Other land uses over and above the residential erven will be community facilities, public open spaces and commercial, retail and service industries to provide future employment opportunities.  The development will also provide for employment opportunities during the construction phase of the development.  Regardless of the fact that the site is not currently appropriately zoned for the proposed land use, the development is regarded to be in line with the surrounding land uses as the site is surrounded by residential land uses.  The most prominent impact from an environmental perspective is the permanent loss of endangered vegetation amounting to approximately 8 hectares.  Considering the current housing demand and land invasion situation within the City of Cape Town, and social ills such as dumping and sand mining, the integrity of the small patches of intact vegetation on site cannot be guaranteed.  The Preferred Alternative was deemed as the most feasible alternative as it takes into consideration both socio-economic and ecological concerns.  a) The dire need to service the needs of communities with housing.  b) A responsibility to ensure persistence of critical habitats.  With consideration with the above, a decision was made by the project team to protect the Eskom servitude with an ecological buffer. It is emphasized that from a botanical perspective the No-Go buffer area is not sustainable without the long-term protection of the Eskom servitude since the intention is to buffer the existing ecological link formed by the servitude (maintaining the spatial ecological link between the CBAs to the north and south). The recommended 40 m wide buffer area is indicated in Figure 18B. This area should be protected from dumping and general disturbance in the event of the development being approved. | | |

1. **IMPACT MANAGEMENT, MITIGATION AND MONITORING MEASURES**
2. Based on the assessment, describe the impact management, mitigation and monitoring measures as well as the impact management objectives and impact management outcomes included in the EMPr. The EMPr must be attached to this report as Appendix H.

|  |
| --- |
| The impact management, mitigation and monitoring measures as well as the impact management objectives and impact management outcomes included in the EMPr are described below.   * An Environmental Control Officer (ECO) must be appointed to oversee the construction phase (including the implementation of the Environmental Management Programme (EMPr) and any applicable Conditions of the Environmental Authorisation). * All mitigation measures detailed in the EMPr (**Appendix H**) must be adhered. * The site should be audited one year after authorisation, and again two years later.   **Mitigation measures proposed by the Botanist**  Mitigation options are generally considered in terms of the following hierarchy: (1) avoidance, (2) minimization, (3) restoration and (4) offsets. Since only a small portion of vegetation would be avoided (2.72 ha) by the designated No-Go area (**Figure** **18B**) impacts would not be reduced under the avoidance mitigation options. Thus, although the conservation of the 2.7 ha buffer area would not reduce the High Negative Impact rating it would at least offer a robust level of protection for the Eskom servitude. Significant minimization would not be accepted as a mitigation option since the developments by virtue of being a low-cost housing projects requires maximization of available space. Restoration is equally problematic since it requires avoidance and minimization in order to be achieved. Lastly, offsets as mitigation options are deemed to be the least desirable option by the client COCT Housing, as this is known to be an extremely time consuming and costly exercise and is bound to delay the housing project considerably. Given the dire social and political need for housing in this area and in the country in general, all delays in service delivery must be prevented or mitigated as far as possible. As such, even though offsets are not considered as a mitigation option at this pre-application stage of the Basic Assessment process. Should further consideration of this mitigation option be requested from any relevant commenting authority or from the competent authority during the public participation process, this will be included as a mitigation option in the final impact assessment phase. |

1. Describe any provisions for the adherence to requirements that are prescribed in a Specific Environmental Management Act relevant to the listed activity or specified activity in question.

|  |
| --- |
| None |

1. Describe the ability of the applicant to implement the management, mitigation and monitoring measures.

|  |
| --- |
| City of Cape Town Housing has confirmed their commitment to implement management, mitigation and monitoring measures as specified in the recommendations from specialists and the EMPr.  The EMPr also requires that an ECO is appointed to ensure that management, monitoring and mitigation measures are implemented and that the Competent Authority is kept informed of the process. Please refer to **Appendix H – EMPr**. |

1. Provide the details of any financial provisions for the management of negative environmental impacts, rehabilitation and closure of the proposed development.

|  |
| --- |
| City of Cape Town Housing is able to implement all required mitigation and management measures for this project.  No financial provisions for rehabilitation or closure is relevant at this stage. |

1. Provide the details of any financial provisions for the management of negative environmental impacts, rehabilitation and closure of the proposed development.

|  |
| --- |
| Same as above. |

1. Describe any assumptions, uncertainties, and gaps in knowledge which relate to the impact management, mitigation and monitoring measures proposed.

|  |
| --- |
| The following uncertainties and gaps in knowledge were identified in the assessment undertaken:   * That the construction will be carried out according to the oil companies’ normal operating standards. * That management will act in a responsible manner and take action when incidents occur to determine the cause and/or rectify the cause of the problem. * That the available data, including Topocadastral maps, Orthophotographs, geological maps and DWS national ground water database information, are reasonably accurate. * That management will act in a responsible manner and take action when incidents occur to determine the cause and/or rectify the cause of the problem. * That the installation of equipment at the facility is conducted by competent, trained contractors. In addition, all equipment must be adequately maintained. * That the equipment used fulfils its design requirements and is not faulty. * That the available data, including topocadastral maps, orthophotographs, geological maps and DWS national ground water database information, are reasonably accurate. * There are no uncertainties which have arisen from investigations undertaken by the EAP and by specialists which materially affect this application. |

**Section H: RECOMMENDATIONS OF THE EAP AND SPECIALISTS**

|  |  |  |
| --- | --- | --- |
| 1. In my view as the appointed EAP, the information contained in this BAR and the documentation attached hereto is sufficient to make a decision in respect of the listed activity(ies) applied for. | **YES** | NO |

|  |  |  |  |
| --- | --- | --- | --- |
| 1. If the documentation attached hereto is sufficient to make a decision, please indicate below whether, in your opinion, the listed activity(ies) should or should not be authorised: | | | |
| Listed activity(ies) should be authorised: | | **YES** | NO |
| Provide reasons for your opinion | | | |
| There is a dire need for housing in the South African context.  The proposed development will allow for a variety of housing opportunities including FLISP (Finance Linked Individual Subsidy Programme), BNG (Breaking New Ground) and Incremental Housing.  The main emphasis will be on high density residential opportunities and an estimated 3932 residential opportunities can be created on the property. Other land uses over and above the residential erven will be community facilities, public open spaces and commercial, retail and service industries to provide future employment opportunities.  The development will also provide for employment opportunities during the construction phase of the development.  Regardless of the fact that the site is not currently appropriately zoned for the proposed land use, the development is regarded to be in line with the surrounding land uses as the site is surrounded by residential land uses.  The most prominent impact from an environmental perspective is the permanent loss of endangered vegetation amounting to approximately 8 hectares.  Considering the current housing demand and land invasion situation within the City of Cape Town, and social ills such as dumping and sand mining, the integrity of the small patches of intact vegetation on site cannot be guaranteed.  The Preferred Alternative was deemed as the most feasible alternative as it takes into consideration both socio-economic and ecological concerns.  a) The dire need to service the needs of communities with housing.  b) A responsibility to ensure persistence of critical habitats.  With consideration with the above, a decision was made by the project team to protect the Eskom servitude with an ecological buffer. It is emphasized that from a botanical perspective the No-Go buffer area is not sustainable without the long-term protection of the Eskom servitude since the intention is to buffer the existing ecological link formed by the servitude (maintaining the spatial ecological link between the CBAs to the north and south). The recommended 40 m wide buffer area is indicated in Figure 18B. This area should be protected from dumping and general disturbance in the event of the development being approved. | | | |
| 1. Provide a description of any aspects that were conditional to the findings of the assessment by the EAP and Specialists which are to be included as conditions of authorisation. | | | |
| All mitigation and management measures included in the specialist reports as well as included in the EMPr attached in **Appendix G** is to be adhered to at all times.  An ECO must be appointed to ensure that the development complies with the relevant conditions and mitigation measures as contained in the BA and EMPr. | | | |
| 1. If you are of the opinion that the activity should be authorised, please provide any conditions, including mitigation measures that should in your view be considered for inclusion in an environmental authorisation. | | | |
| Same as the above. | | | |
| 1. Please indicate the recommended periods in terms of the following periods that should be specified in the environmental authorisation: | | | |
| 1. the period within which commencement must occur; | Within 3 years from the date of the authorisation | | |
| 1. the period for which the environmental authorisation is granted and the date on which the development proposal will have been concluded, where the environmental authorisation does not include operational aspects; | 8 Years | | |
| 1. the period for which the portion of the environmental authorisation that deals with non-operational aspects is granted; and | 5 Years | | |
| 1. the period for which the portion of the environmental authorisation that deals with operational aspects is granted. | The proposed development does not entail operational aspects. | | |

**SECTION I: AppendiCes**

The following appendices must be attached to this report:

|  |  |  |  |
| --- | --- | --- | --- |
| **APPENDIX** | | | **Confirm that Appendix is attached** |
| **Appendix A:** | **Locality map** | | √ |
| **Appendix B:** | **Site development plan(s)** | | √ |
| **A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;** | | √ |
| **Appendix C:** | **Photographs** | | √ |
| **Appendix D:** | **Biodiversity overlay map** | | √ |
| **Appendix E:** | **Permit(s) / license(s) from any other Organ of State, including service letters from the municipality.** | |  |
| **Appendix E1:** | **Copy of comment from HWC.** | √ |
| **Appendix F:** | **Public participation information: including a copy of the register of I&APs, the comments and responses report, proof of notices, advertisements and any other public participation information as is required in Section C above.** | | √ |
| **Appendix G:** | **Specialist Report(s)** | | √ |
| **Appendix H :** | **EMPr** | | √ |
| **Appendix I:** | **Additional information related to listed waste management activities (if applicable)** | |  |
| **Appendix J:** | **If applicable, description of the impact assessment process followed to reach the proposed preferred alternative within the site.** | |  |
| **Appendix K:** | **Any Other (if applicable).** | |  |

**SECTION J: DECLARATIONS**

# **The applicant**

**Note:** Duplicate this section where there is more than one applicant.

I …………………………………………..……….., in my personal capacity or duly authorised thereto, hereby declare/affirm all the information submitted as part of this Report is true and correct, and that I –

* am aware of and understand the content of this report;
* am fully aware of my responsibilities in terms of the NEMA, the EIA Regulations in terms of the NEMA (Government Notice No. R. 982, refers) (as amended) and any relevant specific environmental management Act and that failure to fulfil these requirements may constitute an offence in terms of relevant environmental legislation;
* have provided the EAP and Specialist, Review EAP (if applicable), and Review Specialist (if applicable), and the Competent Authority with access to all information at my disposal that is relevant to the application;
* will be responsible for complying with conditions that may be attached to any decision(s) issued by the Competent Authority;
* will be responsible for the costs incurred in complying with the conditions that may be attached to any decision(s) issued by the Competent Authority;

**Note:** If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.

|  |  |
| --- | --- |
| Signature of the Applicant: |  |
| Name of Organisation: |  |
| Date: |  |

**The environmental assessment practitioner**

I ………………………………………………………., as the appointed EAP hereby declare/affirm:

* the correctness of the information provided as part of this Report;
* that all the comments and inputs from stakeholders and I&APs have been included in this Report;
* that all the inputs and recommendations from the specialist reports, if specialist reports were produced, have been included in this Report;
* any information provided by me to I&APs and any responses by me to the comments or inputs made by I&APs;
* that I have maintained my independence throughout this EIA process, or if not independent, that the review EAP has reviewed my work (Note: a declaration by the review EAP must be submitted);
* that I have throughout this EIA process met all of the general requirements of EAPs as set out in Regulation 13;
* I have throughout this EIA process disclosed to the applicant, the specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared as part of the application;
* have ensured that information containing all relevant facts in respect of the application was distributed or was made available to I&APs and that participation by I&APs was facilitated in such a manner that all I&APs were provided with a reasonable opportunity to participate and to provide comments;
* have ensured that the comments of all I&APs were considered, recorded and submitted to the Department in respect of the application;
* have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, if specialist inputs and recommendations were produced;
* have kept a register of all I&APs that participated during the PPP; and
* am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

|  |  |
| --- | --- |
| Signature of the EAP: |  |
| Name of Company: |  |
| Date: |  |

**The REVIEW environmental assessment practitioner**

I ………………………………………………………., as the appointed Review EAP hereby declare/affirm:

* that I have reviewed all the work produced by the EAP;
* the correctness of the information provided as part of this Report;
* that I have, throughout this EIA process met all of the general requirements of EAPs as set out in Regulation 13;
* I have, throughout this EIA process disclosed to the applicant, the EAP, the specialist (if any), the review specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared as part of the application; and
* am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

|  |  |
| --- | --- |
| Signature of the Review EAP: |  |
| Name of Company: |  |
| Date: |  |

# **The SPECIALIST**

**Note:** Duplicate this section where there is more than one specialist.

I ……………………………………, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that I :

* in terms of the general requirement to be independent:
  + other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  + am not independent, but another specialist (the “Review Specialist”) that meets the general requirements set out in Regulation 13 has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
* in terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
* have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared or to be prepared as part of the application; and
* am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

|  |  |
| --- | --- |
| Signature of the Specialist: |  |
| Name of Company: |  |
| Date: |  |

# **The REVIEW SPECIALIST**

I ………………………………………………………., as the appointed Review Specialist hereby declare/affirm:

* that I have reviewed all the work produced by the Specialist(s);
* the correctness of the specialist information provided as part of this Report;
* that I have, throughout this EIA process met all of the general requirements of specialists as set out in Regulation 13;
* I have, throughout this EIA process disclosed to the applicant, the EAP, the review EAP (if applicable), the Specialist(s), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared as part of the application; and
* I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

|  |  |
| --- | --- |
| Signature of Review Specialist: |  |
| Name of Company: |  |
| Date: |  |

1. In bold to highlight as relevant section of listed activity that is triggered [↑](#footnote-ref-1)