



# **POST CONSTRUCTION ENVIRONMENTAL AUDIT REPORT**

**June 2020**

**CONSTRUCTION OF THE GENERATION SCHOOL ON  
PORTION 2 OF REMAINDER CAPE FARM NO. 1529,  
IMHOFF FARM, KOMMETJIE**

**Prepared for Propgen (Pty) Ltd**

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## 1. INTRODUCTION

The development of a school and associated infrastructure on Portion 2 of the Remainder Cape Farm no. 1529, Imhoff Farm, Kommetjie was initially approved in terms of an Appeal Environmental Authorisation granted on 13 May 2016. Due to a transfer of ownership of a portion of the site and a variation in the school design an amended Appeal Environmental Authorisation was issued on 21 June 2018 by the Department of Environmental Affairs and Development Planning (DEADP).

Construction of the Generation School on Portion 2 of the Remainder of Cape Farm no. 1529 commenced during June 2018 and was completed during April 2020. Environmental Control Officer (ECO) site visits were undertaken on a monthly basis to monitor the Environmental Management in terms of the approved Environmental Management Programme (EMPr) on site during this period.

Monique Sham Environmental Consultants (MSEC) was appointed by Propgen (Pty) Ltd as the independent ECO to monitor implementation of the Environmental Authorisation (EA) and EMPr and to report on matters of non-compliance and assist in the rectification of any activities related to non-compliance.

This Post-construction Environmental Audit Report provides the following:

- A report on compliance with the conditions of EA and EMPr; and
- A record of the activities of the ECO.

## 2. BACKGROUND

The Generation School Imhoff campus was constructed in terms of the Amended EA issued for the development. The layout of the school on Portion 2 differed slightly to what was originally approved for the Imhoff Waldorf School and this was one of the reasons for the amendment application.

The site (Portion 2) is 29507m<sup>2</sup> in extent with a total building coverage of 5836m<sup>2</sup> with additional internal roads, parking boys, courtyards, walkways swimming pool and sports fields with a total footprint of 17660m<sup>2</sup>. The buildings are single or double story and a right of way on the site provides parking and access for Imhoff School NPC to Portion 1. The development approved on Portion 2 includes the following:

- Primary School building (1960m<sup>2</sup>);
- Primary admin building (146m<sup>2</sup>);
- Pre-Primary School building (266m<sup>2</sup>);
- Middle and High School buildings (1495m<sup>2</sup>);
- Admin building Middle and High School (126m<sup>2</sup>);
- Hall, kitchen and pool building (1660m<sup>2</sup>);
- Caretaker cottage (77m<sup>2</sup>);
- Security Guardhouse (20m<sup>2</sup>);
- Clock Tower (33m<sup>2</sup>);
- Entrance Portico (33m<sup>2</sup>); and
- Refuse Room (20m<sup>2</sup>).

The reasons for the approval of the appeal EA by the DEA&DP included:

The impacts associated with a school development on the site were assessed in the basic assessment process which resulted in the Appeal EA. The current amendment application is intended for changes to the holder of the Appeal EA. While there are minor changes to the layout of the development for Portion 1 and Portion 2 to what was approved. The environmental impacts are identical to those assessed in the basic assessment process. The building footprint remains similar, and in some cases, has been reduced slightly, and the layout scheme on Portion 2 has been redesigned to better cater for the new operator. There will also be no increase in services required to either portion. The proposed amendments will therefore not change the scope of the Appeal EA. Only the details of the new holder(s) and the description of the proposed development should be amended in the Appeal EA.

This audit report provides a description on compliance with the conditions of the EA and the EMPr and also gives details regarding issues identified during the construction phase and how these were rectified. The following sections provide a description of compliance relating to:

1. Conditions of the EA relating to the construction phase; and
2. Specifications in the EMPr relating to the construction phase.

### 3. COMBINED EA CONDITIONS

The table below lists the conditions of the EA and provides a comment on the compliance relating to each:

**Table 1: Compliance with EA Conditions**

Section /source EA	Condition	Amendment & Compliance comment
Amendment EA	<p><b>ENVIRONMENTAL AUTHORISATION</b></p> <p><b>DECISION</b></p> <p>By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment Regulations ("EIA") Regulations 2014; I herewith grant an Environmental Authorisation to the applicant i.e. <u>Imhoff Waldorf School NPC to undertake the list of activities on Portion 1 and the new owners i.e. Propgen (Pty) Ltd and Red Cliff Property (Pty) Ltd to undertake the list of activities on Portions 2 and 3 of the site</u> respectively as per the application for the amendment of the Appeal Environmental Authorisation".</p>	Section as amended.

<p><b>A – Amendment EA</b></p>	<p><b>DETAILS OF THE HOLDER OF THE ENVIRONMENTAL AUTHORISATION</b></p> <p>Imhoff Waldorf School NPC is the holder of the Appeal EA only in terms of Portion 1 of the site. Therefore, Imhoff Waldorf School NPC must implement and comply with the conditions of the Appeal EA, including the Environmental Management Programme ("EMPr") approved in terms of condition E10 of the Appeal EA, only in relation to Portion 1 as there are changes of ownership for Portion 2 of the site and the right of way servitude (Portion 3 or the main entrance) which provides the access road (and services) from Kommetjie Road to Portion 2. The rights and obligations therefore in terms of Portions 2 and 3 are transferred to Propgen (Pty) Ltd and Red Cliff Property (Pty) Ltd respectively.</p> <p>li: Propgen (Pty) Ltd is the holder of the Appeal EA only in terms of Portion 2 of the site. Therefore, Propgen (Pty) Ltd must implement and comply with the conditions of the Appeal EA, including the EMPr approved in terms of condition E10 of the Appeal EA, only in relation to Portion 2.</p> <p>lii: Red Cliff Property (Pty) Ltd is the holder of the Appeal EA only in terms of Portion 3 i.e. the right of way servitude or the main entrance of the site. Therefore, Red Cliff Property (Pty) Ltd must implement and comply with the conditions of the Appeal EA, including the EMPr approved in terms of condition E10 of the Appeal EA, only in relation to Portion 3.</p>	<p><b>The holder of the Appeal EA is amended as follows:</b></p> <p><b><u>Comment: Noted (Portion 2 transferred to Propgen (Pty) Ltd.).</u></b></p>
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<p><b>Appeal EA</b></p>	<p><b>LIST OF ACTIVITIES AUTHORISED</b></p> <p>Government Notice No. R. 983 of 4 December 2014 -</p> <p>Activity 27: "The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan",</p> <p>Government Notice No. R.985 of 4 December 2014 -</p> <p>Activity 4: "The development of a road wider than 4 metres with a reserve less than 13,5 metres.</p> <p>(f) In the Western Cape: Areas outside urban areas; (aa) Areas containing indigenous vegetation; (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or In urban areas: (cc) Areas zoned for conservation use; or (dd) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority"; and</p> <p>ii.</p> <p>Activity 12: "The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>(a) in the Western Cape:</p> <p>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;</p> <p>i. Within critical biodiversity areas identified in bioregional plans;</p> <p>i. Within the littoral active zone or 100 metres inland from the 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; or</p> <p>✓. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning".</p> <p>The abovementioned list is hereinafter referred to as "the listed activities".</p> <p>The holder is herein authorised to undertake the following related to the listed activities:</p>	<p><b>Noted that listed activities were not amended.</b></p>
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<p><b>Amended EA</b></p>	<p>Portion 1 (northern portion):</p> <p>In terms of the Portion 1 (northern portion) which will be for the Imhoff Walldorf School NPC the layout is slightly amended, as per the appended layout plan (contained in Annexure AA) of Portion 1 contained in Appendix D of the above-mentioned amendment application, to incorporate additional parking bays. Portion 1 is 22996m<sup>2</sup> and the total building coverage proposed by the Imhoff School is 5580m<sup>2</sup> plus on additional 27 parking boys on this portion. The access road servitude over Portion 2 for Imhoff Waldorf will be used to gain access to Portion 1 as per the previous designs and 40 additional parking bays adjacent to this road must be developed. The development approved on Portion 1 will include the following:</p> <ul style="list-style-type: none"> <li>● Buildings covering on area of 4524m<sup>2</sup> including:</li> <li>● Toddler classrooms;</li> <li>● Primary school;</li> <li>● Facilities including on outdoor class and fire pool; and</li> <li>● Ground and domestic staff buildings.</li> <li>● Verandah's covering on area of 1421m<sup>2</sup>.</li> <li>● Primary school playing field covering on area of 2248m<sup>2</sup>.</li> <li>● Toddlers/pre-school playing field covering on area of 195m<sup>2</sup>.</li> </ul> <p>The current Appeal EA's approved building footprint on Portion I is 5945m<sup>2</sup> and therefore the proposed new building footprint is 5580m<sup>2</sup> plus 27 additional parking boys and access on the south eastern corner of the site.</p>	<p><b><u>Not applicable to Portion 2 (Southern Portion)</u></b></p>
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	<p>ii. Portion 2 (southern portion)</p> <p>The layout of the school on this portion is amended to differ slightly to what was originally approved for the Imhoff Walldorf School. The appended layout plan (contained in Annexure BB) is contained in Appendix D of the amendment application. Portion 2 is 29507m<sup>2</sup> in extent and the total building coverage will be 5836m<sup>2</sup> with additional internal roads, parking boys, courtyards, walkways swimming pool and sports fields which will have a total footprint of 17660m<sup>2</sup>. The buildings will remain single or double storey as per the original application and a right of way servitude is required over this portion to provide parking and allow access for Imhoff School NPC to Portion 1. The development approved on Portion 2 will include the following:</p> <ul style="list-style-type: none"> <li>• Primary School building (1960m<sup>2</sup>);</li> <li>• Primary admin building (146m<sup>2</sup>);</li> <li>• Pre-Primary School building (266m<sup>2</sup>);</li> <li>• Middle and High School buildings (1495m<sup>2</sup>);</li> <li>• Admin building Middle and High School (126m<sup>2</sup>);</li> <li>• Hall, kitchen and pool building (1660m<sup>2</sup>);</li> <li>• Caretaker cottage (77m<sup>2</sup>);</li> <li>• Security Guardhouse (20m<sup>2</sup>);</li> <li>• Clock Tower (33m<sup>2</sup>);</li> <li>• Entrance Portico (33m<sup>2</sup>); and</li> <li>• Refuse Room (20m<sup>2</sup>).</li> </ul> <p>The new landowner's details for Portion 2 are.</p> <p>Name of the applicant: Propgen (Pty) Ltd</p> <p>Name of the contact person: Mr. Jac Vos</p> <p>Postal address: P.O. Box 7677, Roggebaai, Cape Town, 8012</p> <p>Telephone number: (021) 421 5550</p> <p>Cellphone number: 082 872 4611</p> <p>Email address: jac@trematon.co.za</p> <p>Fax Number: (086) 465 2678</p>	<p>Planned construction in line with approved Site Development Plan. Although a slight variation is evident these variations are within the constraints of the Environmental Authorisation.</p>
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	<p>Portion 3 (main entrance)</p> <p>A change of ownership is also proposed for the right of way servitude which provides the access road (and services) from Kommetjie Road to Portion 2. This portion will be the responsibility of the current landowner Red Cliff Property (Pty) Ltd for the remainder for of the construction phase and once complete it will be ceded to the City of Cape Town as a public road. This portion is 2798m2 as per the current Appeal EA i.e. there is no amendment to the layout, but amendment is only required for the change of the holder of the Appeal EA. The new landowner's details for right of way servitude are:</p> <ul style="list-style-type: none"> <li>• Name of the applicant: Red Cliff property (Pty) Ltd</li> <li>• Name of the contact person: Mr. Gerhard van der Horst</li> <li>• Postal address: P.O. Box 48392, Kommetjie, 7976</li> <li>• Telephone number: (021) 783 3332.</li> <li>• Cellphone number: 082 801 9547</li> <li>• Email address: vanderhorstgerhard@gmail.com, Fax Number: (086) 6720529</li> </ul> <p>All firebreaks remain the same as was proposed and approved in the Appeal EA.</p> <p>"Conditions of Authorisation"</p> <p>Condition E0 of the Appeal EA is amended as follows:</p> <p>"The draft EMP submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented and complied with by:</p> <p>10.1 Imhoff Walldorf School NPC in terms of the development in Portion 1 of the site;</p> <p>10.2 Propgen (Pty) Ltd in terms of the development in Portion 2 of the site; and</p> <p>10.3 Red Cliff Property (Pty) Ltd in terms of the development in Portion 3 of the site. "</p> <p>The applicant must, in writing, within 14 (fourteen) calendar days of the date of this decision notify all registered Interested and Affected Parties ("I&amp;AP's") of the outcome of the amendment application and the reasons for the decision.</p>	<p><u>Notification giving as per Condition 6 of the Appeal EA.</u></p>

<b>E / Appeal EA</b>	<b>Conditions of Authorisation</b>	<b>Comment</b>
<b>1 / Appeal EA</b>	Scope of authorisation The preferred alternative as described in paragraph B above is approved.	Noted that EA Activity was amended.
<b>2 / Appeal EA</b>	Authorisation of the activities is subject to compliance with the conditions set out in this Environmental Authorisation. The holder must ensure compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.	EA Forms part of contractual agreement with contractors.
<b>3 / Appeal EA</b>	The holder must commence with, and conclude, the listed activities within the stipulated validity period which this Environmental Authorisation is granted for, or this Environmental Authorisation shall lapse and a new application for Environmental Authorisation must be submitted to the competent authority.  This Environmental Authorisation is granted for (a) A period of five (5) years, from the date of issue, during which period the holder must commence with the authorised listed activities; and  (b) A period of five (5) years, from the date the holder commenced with an authorised listed activity, during which period the authorised listed activities for the construction phase, must be concluded.	EA issued 13-05-2016 less than 5 years prior to construction commencement in 2018 - contractor to complete activities within 5 years.
<b>4. / Appeal EA</b>	The activities that have been authorised may only be carried out at the site described in section C above in terms of an approved "Environmental Management Programme" ("EMPr").	Noted, the school was constructed on the site in line with the description and the building plans approved by the Local Authority.

<b>5 / Appeal EA</b>	Any changes to, or deviations from the scope of the description set out in section B and Condition 2 above must be accepted or approved, in writing, by the competent authority before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the competent authority may request such information to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation	Noted no notable deviations from plan submission.
<b>6 / Appeal EA</b>	<p><b>Notification of authorisation and right to appeal</b></p> <p>The holder of the authorisation must in writing, within 14 (fourteen) calendar days of the date of this decision -</p> <p>6.1 notify all registered Interested and Affected Parties of -</p> <p>6.1.1 the outcome of the application;</p> <p>6.1.2 the reasons for the decision;</p> <p>6.1.3 the date of the decision; and</p> <p>6.1.4 the date of issue of the decision;</p> <p>6.2 draw the attention of all registered Interested and Affected Parties to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulation, 2014;</p> <p>6.3 draw the attention of all registered Interested and Affected Parties to the manner in which they may access the decision; and</p> <p>6.4 provide the registered Interested and Affected Parties with:</p> <p>6.4.1 the name of the holder (entity) of this Environmental Authorisation,</p> <p>6.4.2 name of the responsible person for this Environmental Authorisation,</p> <p>6.4.3 postal address of the holder,</p> <p>6.4.4 telephonic and fax details of the holder, 6.4.5 e-mail address, if any.</p>	Registered I&APs were sent letters compliant with these requirements. Refer to attached notification email in Appendix D which contains all the information as listed above sent to all registered interested and affected parties 5 days after the EA was issued (i.e. on 18 May 2016) and the amended EA (on 5 July 2018).

<b>7</b>	<p><b>Commencement</b></p> <p>The listed activities, including site preparation, must not commence within 39 (thirty nine) calendar days from the date of issue of this Environmental Authorisation.</p>	EA issued 13-05-2016 and installations of services commenced in February 2017 (i.e. more than 39 calendar days after the date of issue of the EA) and construction of the school commenced in June 2018.
<b>8</b>	In the event that an appeal is lodged with the Appeal Administrator, the effect of this Environmental Authorisation is suspended until such time as the appeal is decided. In the instance where an appeal is lodged the holder may not commence with the activities, including site preparation, until such time as the appeal has been finalised and the holder is authorised to do so.	No further appeals after the Appeal EA was issued.
<b>9</b>	<p><b>Written notice to the competent authority</b></p> <p>Seven calendar days' notice, in writing, must be given to the competent authority before commencement of construction activities. Commencement for the purpose of this condition includes site preparation. 9.1 The notice must make clear reference to the site details and EIA</p> <p>Reference number given above. 9.2 The notice must also include proof of compliance with the following conditions described herein: Conditions: 6, 7, 14, 22 and 24.</p>	A letter, dated 13 April 2017, was the written notice that construction commenced in February 2017 with the installation of services from Kommetjie Road to the school site (refer to Appendix D).
<b>10</b>	<p><b>Management of activity</b></p> <p>The draft EMPr submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.</p>	The draft EMPr was implemented by contractors with ECO Reports confirming such.
<b>11</b>	An application for amendment to the EMPr must be submitted to the competent authority in terms of Chapter 5 of the EIA Regulations, 2014 if any further amendments are to be made to the EMPr, and these may only be implemented once the amended EMPr has been authorised by the competent authority.	No amendments made to EMPr.
<b>12</b>	The EMPr must be included in all contract documentation for all phases of implementation.	EMPr included as part of contracts with contractor.

<b>13</b>	A copy of the Environmental Authorisation and the EMPr must be kept at the site where the listed activities will be undertaken. Access to the site referred to in Section C above must be granted and, the Environmental Authorisation and EMPr must be produced to any authorised official representing the competent authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein. The Environmental Authorisation and EMPr must also be made available for inspection by any employee or agent of the applicant who works or undertakes work at the site.	Copies of the environmental authorisation, amended EA and draft EMPr were available at the contractors office on site in the Environmental File.
<b>14</b>	<p><b>Monitoring</b></p> <p>The holder must appoint a suitably experienced Environment Control Officer ("ECO"), for the duration of the construction and rehabilitation phases of implementation. The ECO must</p> <p>14.1 be appointed prior to commencement of any land clearing or construction activities commencing;</p> <p>14.2 ensure compliance with the EMPr and the conditions contained herein;</p> <p>14.3 keep record of all activities on site; problems identified; transgressions noted and a task schedule of tasks undertaken by the ECO;</p> <p>14.4 remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed.</p>	MSEC appointed as ECO working towards ensuring compliance through monthly ECO site visits and keeping records of activities in Monthly reports (copies available upon request).
<b>15</b>	Access to the site referred to in Section C must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the competent authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein	Noted.
<b>16</b>	<p>The holder must, for the period during which the Environmental Authorisation and EMPr remain valid,</p> <p>16.1 ensure that the compliance with the conditions of the Environmental Authorisation and the EMPr is audited; and</p> <p>16.2 submit environmental audit report(s) to the relevant competent authority at intervals specified in the approved EMPr.</p>	ECO site inspections and monthly ECO Reports include review of EMPr implementation and records of action. This final post construction report is required in terms of the approved EMPr.

17	<p>The environmental audit report must be prepared by an independent person and must address the objectives and contain all the information set out in Appendix 7 of the Environmental Impact Assessment Regulations, 2014.</p> <p>In addition to the above, the environmental audit report, must</p> <p>17.1 provide verifiable findings, in a structured and systematic manner, on (a) the level of compliance with the conditions of the Environmental Authorisation and the EMPr and whether this is sufficient or not; and 2) the extent to which the avoidance, management and mitigation measures provided for in the EMPr achieve the objectives and outcomes of the EMPr and highlight whether this is sufficient or not;</p> <p>17.2 identify and assess any new impacts and risks as a result of undertaking the activity;</p> <p>17.3 evaluate the effectiveness of the EMPr;</p> <p>17.4 identify shortcomings in the EMPr;</p> <p>17.5 identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr;</p> <p>17.6 indicate the date on which the construction work was commenced with and completed or in the case where the development is incomplete, the progress of the development and rehabilitation;</p> <p>17.7 include a photographic record of the site applicable to the audit; and</p> <p>17.8 be informed by the ECO reports.</p>	Environmental Audit Reports is due to be complied annually from 2021 for a period of 5 years following the completion of the construction phase.
18	The holder must, within 7 days of the submission of the environmental audit report to the competent authority, notify all potential and registered Interested and Affected Parties of the submission and make the report available to anyone on request and, where the holder has such a facility, be placed on a publicly accessible website.	This Post Construction Audit Report to be made publicly available.
19	No surface or ground water may be polluted due to any actions on the site. The applicable requirements with respect to relevant legislation pertaining to water must be met.	No evidence of surface or groundwater pollution.
20	An integrated waste management approach, which is based on waste minimisation and incorporates reduction, recycling, re-use and disposal, where appropriate, must be employed. Any solid waste must be disposed of at a waste disposal facility licensed in terms of the applicable legislation.	Waste reduction and recycling to be used where practically possible. School to undertake Recycling during operational phase.

21	<p>Should any heritage remains be exposed during excavations or any actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape (in accordance with the applicable legislation). Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape. Heritage remains include: archaeological remains (including fossil bones and fossil shells); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features; rock art and rock engravings; shipwrecks; and graves or unmarked human burials.</p> <p>A qualified archaeologist must be contracted where necessary at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.</p>	No evidence or reports of heritage remains being uncovered on site with new excavations being monitored by the contractor.
22	<p>Search and rescue must be undertaken in the area mapped by the botanical specialist as containing <i>Lachenalia pallida</i> before commencement of construction activities. All <i>Lachenalia pallida</i> in this area must be rescued and relocated off site to the ecological corridor west of the site. This must be done in accordance with the South African National Parks ("SANParks") and a suitably qualified and experienced professional.</p>	Search and rescue conducted on site prior to commencement of activities (refer to Appendix D). A follow up search and rescue was conducted prior to Commencement of construction of the school on portion 2.
23	<p>Fencing must be pervious to ensure connectivity for faunal and floral species.</p>	The boundary fencing includes spaces along the bottom to accommodate the movement of small fauna (refer to Figure 3 in Appendix C).



24	<p>Any plant species identified by the botanist which are transplantable and which are located within the building footprint must be relocated to an open area on the site and must be used for landscaping. The relocation must be conducted before commencement of construction activities.</p>	<p>Plants were removed from the development footprint, with the <i>Restionaceae</i> (restios) being transplanted to the sanctuary in north-western part of the site, with others (rare bulbs including <i>Lachenalia pallida</i>) placed in containers to be taken to Good Hope Gardens Nursery for safekeeping until they are required for landscaping at the site. It must be noted that a search and rescue had already been undertaken across the site in November 2016, but due to the time since that activity, additional plants had germinated and it was concluded that an additional search and rescue activity would be beneficial (refer to Appendix D for further details regarding the Search and Rescue activities).</p>
25	<p><b>General</b></p> <p>Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.</p>	<p>Noted</p>

26	<p>If the holder does not commence with the listed activities within the period referred to in Condition 3, this Environmental Authorisation shall lapse for the activities, and a new application for Environmental Authorisation must be submitted to the competent authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment in this regard must be made to the competent authority at least three months prior to the expiry date of the Environmental Authorisation.</p> <p>Note that: (1) in terms of Regulation 28(2) of the EIA Regulations, 2014, failure to lodge an application for amendment at least three months prior to the expiry of the validity period of the Environmental Authorisation may result in the lapsing of the Environmental Authorisation, due to the competent authority being unable to process the application for amendment within this period; (2) it is an offence in terms of Section 49A(1)(a) of the NEMA for a person to commence with a listed activity if the competent authority has not granted an Environmental Authorisation for the undertaking of the activity.</p>	N/A activities commenced within the timeframe.
27	<p>The holder must submit an application for amendment of the Environmental Authorisation to the competent authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated, If a new holder is proposed, an application for amendment in terms of Part 1 of the EIA Regulations, 2014 must be submitted.</p> <p>Please note that an amendment is not required if there is a change in the contact details of the holder. In this case, the competent authority must only be notified of such changes.</p>	Noted – Application for amendment was approved on 21-06-2018.
28	<p>The manner and frequency for updating the EMPr is as follows: Amendments to the EMPr, other than those mentioned above, must be done in accordance with Regulations 35 to 37 of GN No. R. 982 of 4 December 2014 or any relevant legislation that may be applicable at the time</p>	Noted no updates to EMPr made.
29	<p>Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.</p> <p>Appeals must comply with the provisions contained in the National Appeal Regulations 2014 (as amended).</p>	Noted

#### 4. CHECKLIST OF COMPLIANCE WITH EMP

Table 2 presents the roles and responsibilities with notes of fulfillment and compliance.

**Table 2: Fulfillment of Roles & Responsibilities**

Role / Responsibility	Compliance
<b>The Developer / Landowner</b> The developer / landowner, shall be responsible for ensuring the provisions of this EMPr are implemented.	
<b>Construction phase</b>	
Ensure that the Contractor is aware of and adheres to the provisions of this EMPr.	The declaration of acceptance of the EMP was signed and kept on site.
Ensure that the Contractor remedy problems timeously and to the satisfaction of the authorities;	MSEC was appointed as ECO to oversee the implementation of the EMP
Appoint an independent and suitably qualified Environmental Control Officer (ECO); and;	MSEC was appointed as ECO.
Notify the authorities and the ECO should problems not be remedied timeously	Not applicable as problems sufficiently remedied (see Section 5)
<b>Operational phase</b>	
Appoint an independent Environmental Auditor to prepare environmental audit reports during the operational phase;	To be addressed during the operational phase.
Maintaining the open spaces as attractive areas that benefit site users and maintains ecosystem functioning;	
Ensuring continued maintenance of the school including waste storage areas and stormwater management system in perpetuity;	
Submitting annual operational phase environmental audit reports for the first 5 years of the operation of the education facility to the local authority and DEA&DP.	
<b>The Contractor</b>	

<p>The Contractor will be appointed by the developer / landowner. The Contractor will be responsible for:</p> <p>Identifying likely aspects that can cause environmental degradation before commencing with any construction activity. Examples of environment aspects include:</p> <ul style="list-style-type: none"> <li>- waste generation</li> <li>- stormwater discharge</li> <li>- emission of pollutants into the atmosphere</li> <li>- chemical use operations</li> <li>- energy use operations</li> <li>- water use operations</li> <li>- use of natural resources</li> <li>- noise generation</li> </ul>	<p>Contractor compiled method statements, which were reviewed and approved by the ECO, in order to address these aspects.</p>
<p>Thereafter the contractor shall programme his work in such a way that each cause and effect of a construction activity is also identified and the activity planned so as to prevent any impact from happening. If prevention is not practicable, or in the event of mishap or misapplication, the contractor shall provide plans and measures for the engineer's approval, which will limit and contain the magnitude, duration and intensity of the impact. The contractor shall demonstrate that he is capable of carrying out any repair and reinstatement of the damaged environment.</p>	<p>Works undertaken acceptably.</p>
<p>Appointing an Environmental Representative who will ensure that all construction activities on site are undertaken in accordance with the EMP; and</p>	<p>The on-site HSE Representative was appointed as the Environmental Representative.</p>
<p>Informing all employees and sub-contractors of their roles and responsibilities in terms of the EMP; and</p>	<p>This was done during toolbox meetings.</p>
<p>Ensuring that all employees and sub-contractors comply with this EMP</p>	<p>Contractor monitored sub-contractor works throughout the duration of the construction phase.</p>
<p><b>Environmental Control Officer: MSEC Environmental Consultants</b></p>	
<p>The Environmental Control Officer ("ECO") shall be a qualified environmental professional or professional firm with the relevant environmental expertise and shall be responsible for:</p>	<p>MSEC Environmental Consultants was appointed as the ECO for the duration of the construction phase. A CV is available in Appendix B.</p>

Informing key, on-site staff through initial environmental awareness training of their roles and responsibilities in terms of the EMP	An environmental awareness training session was held with the school contractor on 4 June 2018 (see Appendix E). Toolbox talks were held throughout the construction phase.
Undertaking monthly site inspections to determine compliance with the EMP.	Monthly site inspections carried out through constructions phase. See Appendix C which provides a list of the dates when site inspections were conducted.
Identifying areas of non-compliance, and recommending measures to rectify them in consultation with Developer / landowner and the Contractor	See Section 5 which provides a record of incidents reported and remedial activities undertaken.
Compiling a checklist of areas of non-compliance	See Section 5 which provides a record of incidents reported and remedial activities.
Ensuring follow-up and resolution of all non-compliance	See Section 5 which provides a record of incidents reported and remedial activities undertaken.
Undertaking a post construction inspection, which may result in recommendations for additional clean-up and rehabilitation measures	This was conducted on 20 March 2020 with additional rehabilitation measures recommended.
Submitting a post-construction audit report on compliance with the specifications presented in the construction EMP (see Section 4) to the Local Authority and DEA&DP.	This report to be submitted to DEA&DP and the local authority.
<b>Contractors Environmental Representative</b>	
The contractor shall appoint a staff member permanently on site during construction as the Environmental Representative who will be responsible for the following:	The Granbuild Foreman Raymond Mpolokeng was appointed as ER assisted by the HSE Representative Christopher Mabusela.
Ensuring that the provisions of this EMP are complied with during the construction phase;	ER and his assistant strived to improve environmental management on site.
Completing the Weekly Checklist; and	Completed weekly checklists on some occasions.
Attending site inspections with the ECO.	ER or his assistant accompanied ECO during site inspections.
<b>Environmental Auditor ("EA")</b>	
An independent Environmental Auditor (EA) shall be appointed by the developer/ landowner. The EA shall be commissioned to undertake an environmental audit once a year (i.e. on an annual basis) following the completion of the construction phase. The environmental audits shall commence for a period of 5 years. The	Annual site inspection and reporting to be undertaken during operation.

<p>annual audits shall include: Undertaking an annual site inspection to determine whether compliance with the Operational EMPr (see Section 6) is being achieved;</p> <ul style="list-style-type: none"> <li>• Liaison with the landowner and any maintenance contractor and obtaining records of operational management obligations as specified in the Operational EMPr (See Section 6);</li> <li>• Identifying areas of non-compliance, and recommending measures to rectify these in consultation with the school management; and</li> <li>• Compilation of annual audit reports and submission of the reports to DEA&amp;DP.</li> </ul>	
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Table 3 presents the EMP Specifications along with compliance status and comments.

**Table 3: Compliance with EMP Specifications**

EMP Specification	Compliance	Notes / Comments
<b>4.2 Site Establishment</b>		
The contractor must submit a Method Statement indicating the exact location, extent and construction details of the construction camp, and the impact mitigation measures the contractor proposes to put in place to the ECO for approval.	Y	Method statements submitted and approved by ECO (copies available upon request).
The contractor shall establish the construction camp on site in a manner that does not adversely affect the environment.	Y	Site camp comprising converted shipping containers and other temporary facilities established on site and with minimal impact to environment.
The construction footprint area must be limited to the minimum that is necessary.	Y	Poles and hazard tape used to demarcate no-go area with signage.
Vehicular access is restricted to existing roadways on site.	Y	Site only accessed through existing routes. Vehicular access required across site necessary for construction activities.
<b>4.3 Materials</b>		
<b>4.3.1 Materials Storage:</b>		

Stockpiling of sand and other construction materials may only occur in an area approved by the ECO.	Y	The ECO designated the construction site as acceptable sand stockpile area provided run-off to surrounding area was prevented.
Sand stockpiles shall be covered in the event of rain or strong winds.	Y	Sand stockpile exposure to rainfall minimised.
<b>4.3.2 Importation of Fill/ Soil/ Sand Materials:</b>		
Imported materials shall be free of weeds, litter and contaminants. Stockpile areas shall be approved by the ECO before any stockpiling commences.	Y	Stockpiles appeared weed and waste free and were stockpiled acceptably.
<b>4.3.3 Materials Delivery:</b>		
All deliveries shall be supervised by an appointed representative of the Contractor.	Y	All deliveries were supervised by the Contractor's ER.
Vehicles may only drive on the access and internal roads and may not drive on naturally vegetated areas.	Y	Delivery vehicles utilised existing site access routes.
All loads shall be secured to prevent spillage during transport.	Y	No spillages were noted and no poorly secured loads were observed.
The Contractor shall be responsible for clean up resulting from failure of subcontractors to properly secure materials.	Y	See above.
<b>4.3.4 Hazardous Substances:</b>		
Relevant Material Safety Data Sheets (MSDS) shall be available on the site for all potentially hazardous substances (as defined in the regulations for Hazardous Chemical Substances). In the event of an emergency, procedures detailed in the MSDS shall be followed.	Y	MSDS available in the Environmental File.
A register of all hazardous substances stored on the site shall be maintained.	Y	Storeman maintained register of hazardous substances.
All hazardous substances shall be stored within secondary containment e.g. oils, bitumen, hydraulic fluids in a suitable storage	Y	Suitable secondary containment measures utilised for minor hazardous substance storage.

facility. Major stocks (>100 litres) of hazardous materials other than fuel should preferably be stored off-site.		
No hazardous substance shall be disposed of on site.	Y	No disposal of any hazardous substance on site was noted or reported.
<b>4.3.5 Fuel Storage and Dispensing</b>		
A method statement regarding fuel storage and dispensing is to be provided to the ECO 5 (five) working days before any fuel storage and dispensing activities commence.	Y	Submitted Method Statements included the Control of Flammable store.
The ECO shall demarcate an area for the Contractor's fuel storage tanks.	Y	Fuel storage tank was located within the contractor's camp site.
Fuel shall be stored in accordance with relevant SABS specifications and all fuel storage tanks shall be provided with adequate bunding (110% of the largest tank). (The bund floor shall be impermeable and sloped to a sump to enable removal of spilled fuel and contaminated water.)	Y	No bulk fuel storage was undertaken. Small fuel containers on site were adequately stored in lined containers.
Adequate fire-fighting equipment shall be provided at fuel storage and dispensing areas.	Y	Fire-fighting equipment on site was deemed adequate.
All plant equipment shall be refuelled at a designated refuelling area, designed to prevent potential pollution (e.g. bunding).	Y	Plant refueled at designated area with drip trays utilised.
In order to adequately handle an emergency spill, a quantity of a material capable of encapsulating / containing a hydrocarbon spill shall be available at the fuel storage area and refuelling area. The material shall be capable of handling a spill of at least 200 litres.	PC	An oil spillage kit was not available on site, but generally minor volumes of fuel stored on site (refer to Section 5 Compliance Issues & Warnings).
In the event of a fuel spill, all unusable fuel and contaminated soil shall be removed and disposed of to a licensed hazardous waste facility.	PC	Any minor spills cleaned up were disposed of as waste, however little spillage occurred on site (refer to Section 5 Compliance Issues & Warnings).



Contaminated soil / fuel that cannot be removed shall be treated in situ with an appropriate remedial agent.	N/A	See above.
All spills greater than 200 litres shall be reported to DEA&DP and the local authority.	N/A	No major spills occurred.
<b>4.4 Waste Management:</b>		
No waste is to be buried on the site.	Y	No reports or evidence of any waste being buried on-site.
Waste may not be burned on site.	Y	No reports or evidence of any waste being burned on site.
All waste shall be disposed of at a licensed waste disposal facility. Proof of this must be kept on site.	Y	Waste removed to licensed facility.
All waste storage areas on site must be kept tidy.	PC	Waste storage areas were often not adequately controlled with overflowing skips and waste stored outside of the site boundaries (refer to Section 5 Compliance Issues & Warnings).
All waste stored on site shall be secured so that it is not blown off site by the wind.	Y	Waste was stored in a fenced off waste storage area
The Contractor will be responsible for the remediation of the water and/or soil, if these are found to be contaminated as a result of the activities of the Contractor.	Y	Contractor cleaned spills as deemed necessary by the ECO.
<b>4.4.1 General Waste:</b>		
Sufficient weather- and vermin- proof bins shall be provided for the disposal of solid waste.	PC	Generally sufficient waste bins were provided however various minor issues relating to waste storage identified (refer to Section 5 Compliance Issues & Warnings).
Bins shall be emptied daily and the contents disposed of to a licensed waste disposal facility.	PC	On some occasions bins were not emptied frequently enough (refer to Section 5 Compliance Issues & Warnings).

No dumping shall occur on site.	Y	There were no observations or reports of dumping on the site. Any stockpiled waste has been removed.
The Contractor shall make provision for workers to clean up the Contractor's camp and working areas at the end of each day	Y	There was ongoing intermittent removal of litter at least weekly.
The Contractor shall remove the refuse collected from the working areas on a daily basis.	Y	Refuse was either removed from site or stored in closed bags in the waste storage area until being removed on a weekly basis.
Wherever possible, materials used or generated by construction shall be recycled.	Y	Re-usable material were re-used where possible, minimal recycling by the contractor.
<b>4.4.2 Hazardous Waste:</b>		
Hazardous wastes e.g. used oils shall be separated from general wastes, stored separately in appropriate containers and disposed of to a licensed hazardous waste disposal facility or certified recycling facility.	Y	Negligible amounts of hazardous wastes were generated during the construction phase.
Hazardous waste bins shall be emptied on a daily basis and the contents disposed of to a licensed hazardous waste disposal facility	N/A	See above.
<b>4.5 Erosion and Stormwater Management:</b>		
Care must be taken at all times to prevent erosion. Where required approved stabilisation methods are to be applied to ensure that erosion does not occur.	Y	No evidence of pollution discharge on site or in to the stormwater system was observed.
The Contractor shall prevent discharge of any pollutants, such as cements, concrete, lime, chemicals (including washing of paint brushes) and fuels into the stormwater system.	N/A	Acceptable control of sand and sediment practiced..
Sediment-laden run-off must be contained, collected and sediment allowed to settle out (either by using a sediment trap or other appropriate measure) prior to the run-off being discharged to sewer. The sediment collected in this manner must be disposed of as construction waste.	Y	Stormwater controlled through site shaping and stormwater infrastructure.

Should it become evident that construction activities are resulting in sediment contaminating run-off (e.g. from trucks driving in mud) the contractor will need to put a sediment collection area in place at the entrance/exit to the site. The details of this must be agreed upon with the ECO.	N/A	Little to no sediment was removed from site.
A method statement is required to indicate the preferred method for removal and disposal of sediment	N/A	
A method statement is required to indicate the preferred method for washing of pilings from the piling rigs, if applicable.	N/A	
<b>4.6 Dust Management:</b>		
A method statement regarding dust management is required (i.e. the contractor is required to indicate in a method statement how dust emissions will be minimised prior to any site clearing / excavation activities).	Y	Dust suppression method statement submitted by contractor.
The Contractor shall be solely responsible for the control of dust arising from the Contractor's operations and for any costs against the Developer for damages resulting from the dust.	Y	The Contractor controlled dust generation.
The Contractor shall take all reasonable measures to minimise the generation of dust as a result of construction activities to the satisfaction of the ECO. This applies particularly to the dust which may affect owners and occupiers of the surrounding areas.	Y	Reasonable dust mitigation measures including use of a water truck in work areas.
Excavation, handling and transport of erodible materials shall be avoided under high wind conditions or when a visible dust plume is present.	Y	Works limited if dust generation was problematic.
During high wind conditions, the ESA will evaluate the situation and make recommendations as to whether dust-dampening measures are adequate, or whether work will cease altogether until the wind speed drops to an acceptable level.	Y	Adequate dust dampening undertaken.

Where wind erosion of stockpiles becomes a problem, erosion control measures shall be implemented at the discretion of the ECO.	N/A	No problematic erosion of stockpiles.
Appropriate dust suppression measures shall be used when dust generation is unavoidable, e.g. dampening with water, particularly during prolonged periods of dry weather in summer. Such measures shall also include the use of temporary stabilising measures (e.g. chemical soil binders, straw, brush packs, chipping etc.).	Y	Adequate dust suppression practiced.
<b>4.7 Noise Management:</b>		
Construction activities shall only be permitted between 07:00 am and 17:30 pm during weekdays and between 9:00 am and 13:00 pm on Saturdays.	Y	Working time restrictions adhered to.
No work shall occur on Sundays.	Y	Working time restrictions adhered to.
All machinery is to be fitted with silencers on exhausts where possible.	Y	Machinery used on site fitted with adequate silencers on exhausts.
<b>4.8 Fire Control:</b>		
The Contractor shall take all reasonable and active steps to avoid increasing the risk of fire through their activities on site.	Y	Appropriate fire prevention measures were implemented and firefighting equipment was available.
No fires are permitted on site.	Y	No fires were reported.
No fuelwood collection shall be permitted on site.	Y	No reports or observations of fuelwood collection. However, alien vegetation removal ongoing.
The Contractor shall ensure that the basic fire-fighting equipment is to the satisfaction of the Local Fire Services.	Y	Adequate fire-fighting equipment was available.
A fire officer shall be appointed/designated by the Contractor who shall be responsible for co-ordinating rapid, appropriate responses in the event of a fire.	Y	The Contractor appointed a fire officer.

<b>4.9 Maintenance of Plant</b>		
No workshops or plant maintenance facilities shall be constructed on Site for performing major or routine maintenance of equipment and vehicles.	Y	No reports or observations of the construction of workshop facilities.
The Contractor shall ensure that in those areas where, after obtaining the Engineer's approval, the Contractor carries out emergency or minor routine plant maintenance, there is no contamination of the soil, water sources or vegetation.	Y	No contamination of soil, water or vegetation as a result of plant maintenance.
Drip trays to collect waste oil and other lubricants shall be provided in any areas of the Site where such maintenance takes place.	Y	Drip trays provided.
All waste oils shall be stored in a designated, bunded area and removed by an approved recycling contractor or disposed of to a licensed waste disposal facility.	Y	All waste oils were stored and disposed of appropriately.
Drip trays must be emptied regularly and after rain, and the contents disposed of at a licensed disposal facility.	Y	Water, fuel or oil not allowed to accumulate, no hazardous waste generated.
All vehicles and plant shall be kept in good working order. Leaking vehicles and plant shall be repaired immediately or removed from the Site.	Y	Minor fuel /oil spills, but remedied timeously.
The washing of vehicles and plant on Site shall be restricted to emergency or minor routine maintenance requirements only. Washing may only be undertaken in areas designated by the Engineer in consultation with the ECO.	Y	Minimal servicing of plant observed or reported.
<b>4.10 Construction Site</b>		
<b>4.10.1 Method Statements</b>		
The following method statements shall be provided by the Contractor within 14 days of the receipt of the Letter of Acceptance and prior to the activity covered by the Method Statement being undertaken:		

Logistics for the environmental awareness course for all the Contractors employees.	Y	Method statement provided. Only one Environmental Awareness session conducted, with subsequent Toolbox meetings held regularly.
<p>Emergency procedures for fire, accidental leaks and spillages of hazardous materials including:</p> <ul style="list-style-type: none"> <li>- who shall be notified in the event of an emergency, including contact numbers for the relevant local authority,</li> <li>- where and how any hazardous spills will be disposed of,</li> <li>- the size of spillage which the emergency procedures could contain, and</li> <li>- location of all emergency equipment and an indication of how regularly the emergency equipment will be checked to ensure that it is working properly.</li> </ul>	Y	Method statement provided.
Location and layout of the construction camp in the form of plan showing offices, stores for fuels and explosives, vehicle parking, access point, equipment cleaning areas and staff toilet placement.	Y	Method statement provided.
Location, layout and preparation of bitumen/concrete batching facilities including the methods employed for the mixing of bitumen/concrete and the management of runoff water for such areas. An indication shall be given of how bitumen/concrete spoil will be minimised and cleared.	N/A	No piling undertaken.
Method of undertaking earthworks, including spoil management, erosion and noise controls.	Y	Method statement provided.
Method statements for construction / rehabilitation activities in the 'No-Go' areas. Wastewater management system and disposal methods for contaminated water and soil.	Y	Method statement provided.

Measures to be put in place during temporary closure periods, e.g. December school holidays.	N/A	Method statement not provided however; acceptable temporary closure implemented where necessary.
Extent of areas to be cleared, the method of clearing and the preparation for this clearing so as to ensure minimisation of exposed areas.	Y	Site Establishments MS drafted.
<b>4.10.2 Environmental Awareness Training</b>		
It is a requirement that environmental awareness training courses are required for all personnel on site.	Y	An environmental awareness training session was held on 4 June 2018 (see Appendix E). Toolbox talks were held throughout the construction phase.
Two types of courses shall be run: one for the Contractor's and subcontractors' management, and one for all site staff and labourers.	Y	See above.
The environmental awareness training course for site staff and labour shall be presented by the Contractor from material provided by the Engineer and ECO. The course shall be approximately one hour long. The course shall be undertaken not later than 3 working days after the commencement of work on Site, with sufficient sessions to accommodate all available personnel.	Y	See above.
All the Contractor's employees, sub-contractors' employees and any suppliers' employees that spend more than 1 day a week or four days in a month on Site shall attend the Environmental Awareness Training Course for Site Staff and Labour	Y	Environmental Awareness induction attendance list: <ol style="list-style-type: none"> <li>1. Rob Sham (MSEC)</li> <li>2. Garth Corbet (Burger and Wallace)</li> <li>3. Reggie Hendrick (Groenvlei Treefelling)</li> <li>4. Clinton (Granbuild)</li> <li>5. Joseph Atshpar (Groenvlei Treefelling)</li> <li>6. George William (Groenvlei Treefelling)</li> <li>7. Karel Sabries (Groenvlei Treefelling)</li> <li>8. Andries Sian (Groenvlei Treefelling)</li> <li>9. Chesray J-d (Granbuild)</li> <li>10. Raymond Mpolokeng (Granbuild)</li> <li>11. Colin Budge (B&amp;W)</li> </ol>

The course shall be run during normal working hours at a suitable venue provided by the Contractor.	Y	Course was run during normal working hours.
All attendees shall remain for the duration of the course and sign an attendance register that clearly indicates participants' names on completion, a copy of which shall be handed to the ECO.	Y	Attendees remained for the duration of training and signed an attendance register.
The Contractor shall allow for sufficient sessions to train all personnel. Subsequent sessions shall be run for any new personnel coming onto Site.	Y	An environmental awareness training session was held on 4 June 2018. Toolbox talks were held throughout the construction phase.
A Method Statement with respect to the organisation of these courses shall be submitted.	Y	Method statement submitted by contractor.
It is incumbent upon the Contractor to convey the spirit of the EMPr to all personnel involved with the Works.	Y	Noted.
<b>4.10.3 Construction personnel information posters</b>		
The Contractor shall erect and maintain information posters for the information of his employees, depicting actions to be taken to ensure compliance with aspects of this EMPr.	Y	One information poster maintained on the site.
A2 information posters, printed on white vinyl, shall be erected at the eating areas and any other locations specified by the ECO.	Y	Environmental information poster erected on the site.
The specification for the poster is presented in Appendix E of the EMPr. The symbols shall be black and the circles shall be red lines.	Y	Noted.
The Contractor shall ensure that the construction personnel information posters are not damaged in any way, and shall replace a poster if any part of it becomes illegible.	Y	Poster maintained acceptably.
<b>4.10.4 Ablution Facilities</b>		
Ablution facilities shall be provided for all on-site staff.	Y	Sufficient ablution facilities provided.



The ECO shall designate an area on the site for the erection of portable chemical toilets.	Y	ECO designated areas used.
Toilet facilities supplied by the Contractor for the workers shall occur at a minimum ratio of 1 toilet per 20 workers.	Y	Sufficient toilets provided.
No portable chemical toilets shall be permitted outside the site.	Y	Toilets were made available on site and within construction camp.
All temporary / portable toilets shall be secured to the ground to the satisfaction of the ECO to prevent them toppling due to wind or any other cause.	Y	Toilets satisfactorily secured.
Toilets shall be maintained in a hygienic state and serviced regularly/as required by a reputable contractor and the contents shall be removed to a licensed disposal facility.	Y	Toilets serviced weekly.
The Contractor shall ensure that no spillage occurs when the toilets are cleaned or emptied and that the contents are removed from site.	Y	No spillages noted or reported.
<b>4.10.5 Safety and Security:</b>		
Telephone numbers of emergency services, including the local fire fighting service, shall be posted conspicuously in the Contractor's office near the telephone. In the event of an emergency, the Contractor shall contact the emergency service in the area.	Y	The contact details of all relevant emergency services were available in the site office. No emergencies reported.
<b>4.10.6 Site Boundaries and "No-Go" Area:</b>		
All naturally vegetated areas beyond the disturbance footprint of the proposed access road shall be designated as a "No-Go" area for the contractor	Y	Boundary of construction area designated and areas beyond declared no-go areas.
The "No-Go" areas shall be clearly designated by means of mesh fencing, along the boundary of the No-Go area when construction in the area commences.	Y	Mesh fencing used along western boundary and north-western corner of site to protect no-go (see Figure 12 and Figure 13)

The ECO shall check the integrity of the “fencing” and ensure that tape (where applicable) is still securely in place and clearly visible.	Y	Fencing integrity checked by ECO during monthly site visits.
No vehicles, machinery, materials or people shall be permitted in the “No-Go” area at any time without the express permission of the ECO.	PC	Only approved access and work was permitted in “No-Go” areas. However, some work was undertaken prior to approval of the ECO.
A method statement must be provided by the Contractor before any rehabilitation activities commence in the “No-Go” areas (e.g. rehabilitation of erosion scars and alien vegetation removal).	PC	Some work undertaken in No-Go areas without necessary Method Statement approval by the ECO.
No dumping or stockpiling shall be permitted within the “No-Go” area.	Y	No dumping or stockpiling in no-go areas observed or reported.
All labourers shall be made aware of the “No-Go” area (i.e. labourers may not enter the “No-Go” areas without the express permission of the ECO).	Y	This was ongoing throughout the construction phase.
<b>4.9.7 Temporary site closure</b>		
<p>If the site is closed for a period exceeding one week, the contractor, in consultation with the ECO shall carry out the following checklist procedure:</p> <p>Hazardous materials stores</p> <ul style="list-style-type: none"> <li>○ Outlet secure/ locked</li> <li>○ Bund empty (where applicable)</li> <li>○ Fire extinguishers serviced and accessible</li> <li>○ Secure area from accidental damage e.g. vehicle collision</li> <li>○ Emergency and contact details displayed</li> <li>○ Adequate ventilation</li> </ul> <p>Safety</p> <ul style="list-style-type: none"> <li>○ All trenches and manholes secured</li> <li>○ Fencing and barriers in place as per the Occupational Health and Safety Act (No 85 of 1998)</li> <li>○ Emergency and Management contact details displayed</li> <li>○ Stockpiles wedged/ secured</li> </ul> <p>Erosion</p>	Y	Temporary site closure checklist used before December – January Builders holiday.

<ul style="list-style-type: none"> <li>○ Wind and dust mitigation in place</li> <li>○ Slopes and stockpiles at stable angle</li> </ul> <p>Water contamination and pollution</p> <ul style="list-style-type: none"> <li>○ Cement/bitumen and materials stores secured</li> <li>○ Toilets empty and secured</li> <li>○ Refuse bins empty and secured</li> <li>○ Structures vulnerable to high winds secure.</li> </ul>		
<b>4.11 Construction Activities</b>		
<b>4.11.1 Site Clearing and Excavation Activities</b>		
A “Search and Rescue” operation for <i>Lachenalia pallida</i> (refer to Figure 2 for an image of the plant) must take place before any construction activities commence on the south eastern portion of the site (refer to Figure 4 indicating area requiring “Search and Rescue”). This operation is to be undertaken during the flowering month of the plant (usually August-September) under the supervision of a suitably qualified botanical specialist and in consultation with the ECO.	Y	<p>A floral search and rescue had been undertaken on the site undertaken across the site in November 2016.</p> <p>A second floral search and rescue was conducted on 6 June 2018 under supervision of Good Hope Gardens Nursery representative. Refer to Appendix D for further details.</p>
<i>Lachenalia pallida</i> found on the site are to be translocated to the ecological corridor to the west of the site.	Y	<i>Lachenalia pallida</i> lifted and planted in areas identified by the restoration horticulturist. Refer to Appendix D for further details
A permit from Heritage Western Cape is required in the event that artefacts of heritage significance are uncovered and damaged/or removed from the site.	N/A	No reports or observations of heritage remains being uncovered.
Earthmoving and demolition activities shall be monitored in the event that significant artefacts are encountered during construction activities.	Y	Excavation activities supervised.
In the event that archaeological or historical remains are unearthed in the absence of the archaeological monitor(s), the appointed archaeological specialist or Heritage Western Cape shall be informed.	N/A	No reports or observations of heritage remains being uncovered.
If significant archaeological materials are exposed as a result of the above-mentioned activities, then archaeological mitigation in the	N/A	No reports or observations of archaeological remains being uncovered.

form of collection and/or excavation and basic analyses will be required at the expense of the Developer.		
If human remains are encountered and are older than 60 years, they must be reported to the State Archaeologist at the South African Heritage Resources Agency (Mrs. Mary Leslie who can be reached at 021 462 4502).	N/A	No reports or observations of human remains being uncovered.
Excavated material shall not be dumped beyond the boundaries of the site without authorisation.	Y	Excavated material mostly used on site, but removed as necessary with approval of engineer and project manager.
<b>4.11.2 Fauna and Flora Management</b>		
No fauna may be harmed by any contract workers during the construction phase.	Y	No reports or observations of any fauna being harmed.
The collection, hunting or harvesting of any plants or animals at the site is strictly forbidden. No workers should be allowed to enter any areas beyond the designated construction area.	Y	Areas beyond construction area fenced-off and not accessed.
Any fauna directly threatened by the construction activities should be removed to a safe location by the ESA or other suitably qualified person.	N/A	No reports or observations of any fauna directly threatened requiring removal.
The removal of perceived dangerous animals must be done by conservation authorities or the SPCA Wildlife Unit tel: 021 700 4158/9.	N/A	No reports or observations of any fauna directly threatened requiring removal.
<b>4.11.3 Piling</b>		
A method statement is required to indicate the preferred method for washing of pilings from the piling rigs.	N/A	No piling was undertaken.
<b>4.11.4 Concrete and Cement Batching:</b>		
Where possible ready-mixed concrete and mortar should be used on site instead of onsite mixing.	Y	Some ready mix concrete used on site.

All cement and concrete is to be covered and stored in designated areas on site.	Y	Cement bags stored within closed containers in site camp.
Cement batching shall be allowed only with the consent of the ECO and in areas designated by the ECO.	Y	Acceptable cement batching practices observed.
Run-off from batching operations shall be contained and sediments allowed to settle. Following 'settling out' of sediments run-off may be disposed of at the nearest waste water treatment works. Contaminated run-off shall not be disposed of in the stormwater system as it will result in the contamination of nearby water bodies. This is an offence in terms of the National Water Act 36 of 1998.	Y	Minimal run-off from batching areas did not enter the stormwater system.
Cement bags must be disposed of as waste to a licensed waste disposal facility.	Y	Cement bags were appropriately disposed of.
<b>4.11.5 Asphalt, Bitumen and Paving</b>		
Overspray of bitumen products outside of the road surface shall be prevented using a method approved by the ECO.	Y	Acceptable bitumen use on site, with boards used to prevent overspray.
Bitumen and bituminous products shall be stored in line with the appropriate SABS specifications in an area approved by the ECO. The storage area shall have a smooth impermeable floor. The floor shall be bunded and sloped towards a sump to contain any spillages of substances.	Y	Limited amount of bitumen needed on site and minimal storage necessary.
When heating of bitumen products, the Contractor shall take cognisance of appropriate fire risk controls.	Y	Adequate precautions taken during bitumen use.
Stone chip / gravel excess shall not be left on road / paved area verges. This shall be swept / raked into piles and removed to an area approved by the ECO.	Y	No stone gravel left behind on any verges.
Appropriate fire fighting equipment shall be readily available.	Y	Fire fighting equipment available on site.
<b>4.11.6 Power Tools</b>		

Preventative measures, such as screening, muffling and dust control are recommended to minimise complaints regarding dust, noise and vibration nuisances.	Y	Preventative measures were adopted.
<b>4.11.7 Community Relations</b>		
The Contractor shall recognise that the Site is visible to the public. As such, the construction camp shall be kept neat and clean at all times. Site equipment and materials will be kept away from property entrances which cross the road servitude.	Y	Visual impact related to construction camp minimal.
Information boards erected on and/ or around the site shall comply with the applicable Local Authority By-Law for the control of outdoor advertising or in the absence of local legislative controls must comply with the South African Manual for Outdoor Advertising Control (SAMOAC).	Y	Limited signage used in public areas.
<b>4.11.8 Site Clean Up, Landscaping and Rehabilitation</b>		
Excavated areas are to be reshaped to a near-natural, irregular surface to suite the surrounding topography.	Y	Appropriate reshaping undertaken.
The contractor must ensure that all structures, equipment, materials and facilities used or created on site for or during construction activities are removed once the project has been completed.	Y	Temporary site infrastructure removed from site.
The construction site shall be cleared, and cleaned to the satisfaction of the ECO.	Y	All areas have been cleaned to the satisfaction of the ECO.
All declared weeds and invader species must be removed from the site. The footprint areas should be kept as small as possible when removing these plant species.	Y	Weeds removed from site.
Any plant material to be planted must be locally occurring indigenous species.	Y	Only locally occurring indigenous species used for landscaping as per an approved Landscaping Plan.

Any damage to the stormwater system must be repaired under the guidance of the ECO. The ECO may call on the services of a Civils Engineer to advise on the repair.	Y	No damage to the stormwater system evident.
Affected areas are to be monitored after construction is complete for invasive alien plant species. Any emerging alien plants are to be removed and appropriately disposed of.	Y	Ongoing alien vegetation control to be implemented on site.
The use of pesticides and herbicides is discouraged. If these must be used they must be checked to ensure that it will not have additional impacts and do not result in the loss of indigenous plant species.	Y	Limited herbicide application necessary for invasive species control.

## 5. COMPLIANCE ISSUES & WARNINGS

A number of minor issues were noted during the ECO site inspections, some of these resulted in formal warnings and fines being issued. Formal warnings and any fines issued in relation to the ECO inspections are presented in the Table below:

**Table 4: Formal Fines/ Warnings issued**

Issue	Date	Remedial requirements
<p><b>Warning: NC1 - Fuel handling:</b> Two 210l drums used for storing and dispensing fuel with inadequate means to prevent and resulting in soil contamination.</p> <p>In terms of Section 4.1.3 of the Environmental Management Programme, fines can be issued if the issues are not addressed.</p>	21 September 2018	<p>The spill was cleaned up during the ECO Site visit with the soil placed in hazardous waste bags supplied with the contractors spill kit.</p> <p>Further corrective action recommended:</p> <ol style="list-style-type: none"> <li>1. Clean-up contaminated soil ensure hazardous waste is disposed of appropriately (as hazardous waste).</li> <li>2. Ensure fuel storage is within bunds/trays capable of handling spills and leaks.</li> <li>3. Ensure adequate and suitable drip trays are available and utilised whenever there is the potential to spill fuel onto the ground, including when dispensing, temporarily storing and using fuels. Drip trays must be able to contain spilled product.</li> </ol>
<p><b>Warning: NC2 - Fuel handling</b> Hazardous substances stored on-site within a storage cage however, inadequate liner or bunding underneath.</p>	16 January 2019	Above recommendations communicated to the contractor.
<p><b>Fine F1 - Fuel handling:</b> A generator was refueled without a drip tray and a minor spillage occurred. The</p>	11 December 2018	<b>Corrective actions:</b>



<p>makeshift funnel and water container used is also deemed inappropriate.</p> <p>In terms of Section 4.1.3 of the Environmental Management Programme a fine of R 1 000 was issued for the use of an inappropriate method for refueling.</p> <p>.</p>		<ol style="list-style-type: none"> <li>1. Ensure fuel is only dispensed in lined areas or on a drip tray.</li> <li>2. Ensure appropriate fuel containers are used.</li> <li>3. Ensure adequate and suitable drip trays are available and utilised whenever there is the potential to spill fuel onto the ground, including when dispensing temporarily storing and using fuels. Drip trays must be able to contain spilled product.</li> </ol>
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In addition to the formal warning issued, the table below summarises environmental issues identified and recorded in the file on site during the construction phase:

**Table 5: Environmental Issues identified by ECO**

Issues	Date/s	Remedial measures
<b>Environmental poster</b> not displayed.	June 2018	Environmental poster erected before July 2018 site inspection.
Environmental poster removed.	November 2018	Contractor re-erected the environmental poster.
<b>Hazardous substances, Fuel and oil:</b> An oil and a petrol container utilised by the tree fellers was stored on the bare ground – this was immediately rectified by placing a drip tray beneath them.	June 2018	Drip trays to be used on site beneath generators and fuel.oil containers - drip trays available by July 2018.

Fuel containers were being temporarily stored on a plastic sheeting, and not in an adequate drip tray or bunded area as required.	August 2018	Fuel and oil to be stored within a lined and bunded area.
Minor oil spills observed on site with a forklift vehicle being identified as the source;  A generator and Jerry can was onsite without a drip tray available there, whilst a second generator was leaking and did not have a drip tray beneath.	November 2018	Contractor promoted use of drip trays amongst subcontractors and workers.
A contractor was observed refuelling a generator without a drip tray or similar lining. A damaged drip tray was noted in close proximity A R1000 fine was issued for this noncompliance.  Furthermore, no Spills Register was available in spite of historic minor spills.	November 2018	Contractor requested to supply additional drip trays and record any spills. No spill register was submitted to the ECO.
The contractors fuel store did not have adequate bunding or lining.	November 2018 - January 2019	Requested contractor to place liner beneath fuel cage. This was done by February 2019.
Two minor fuel spills were observed on the bare ground outside of the main bund utilised by the Contractors,	March 2019	The foreman arranged for clean-up of these thereafter. Drip trays to be used when refuelling. No spills evident were during the following inspection.
<b>Waste and litter:</b> Waste on site stored in open top containers and not closed containers as required.	June 2018	Bins with lids supplied to the site.
Some disturbance, debris and packaging material was noted along the swale and boundary fence.	September 2018	Ongoing litter control undertaken on site.

A litter problem was noted in some areas on site with some construction related litter beyond the site boundary	November 2018 - January 2019	Ongoing litter control undertaken on site.
Ongoing minor litter issues noted on site.  Generally acceptable waste management was evident by March 2019 regular waste removal evident, however the waste storage area required better management and wind blown litter was again noted in the north western corner of the Phase 2 site.	November 2018 - February 2019, November 2019 - January 2020	Ongoing litter control undertaken on site. with minor issues recurring and incrementally addressed.
An excessive amount of waste was present on site with considerable amounts inappropriately stored.	December 2018 - January 2019	Waste removal was ongoing during the site visit. January 2019 found notable progress in the ongoing waste removal was evident, some waste remained inappropriately stored.
<b>Toilets:</b> One the chemical toilet on site was not secured to the ground.	July 2018	Chemical toilets secured using pegs and wire noted during August 2018.
Four additional chemical toilets made available and were not secured to the ground.	September 2018	Chemical toilets were later secured.
New chemical toilets on site had not been pegged down to the ground	November - December 2018	Chemical toilets were later secured.
<b>No-go area:</b> The children's playground was under construction in the north-western corner of the site This area was previously designated as a temporary no-go area and some plants were transplanted from the area.	September 2018	As the important plant species were transplanted during the process of creating the playground.
<b>Cement Mixing</b> undertaken in one location without a liner or batch board.	November 2018	Cement usually mixed in mixing trays, and the contractor requested to ensure that was continued.

<b>Alien vegetation control</b> port jackson growth evident on site.	June 2019	Alien vegetation on site cleared.
<b>Site clean-up and rehabilitation</b> underway, but heaps of rubble and sand, as well as containers remaining in the undeveloped eastern part of the site.	January 2020	Material subsequently removed.

## **6. CONCLUSION**

Propgen (Pty) Ltd. Is the holder of the Amended Appeal Environmental Authorisation for Portion 2 of the Remainder Cape Farm no. 1529, Imhoff Farm, Kommetjie issued on 21 June 2018. The proposed development is in line with the approved layout plan and the EA Holder has taken adequate steps as required in terms of the Amended EA. MSEC Environmental Consultants was appointed as the independent ECO during the construction period and undertook monthly site inspections. During inspections minor issues relating to the implementation of the EMPr were noted and reported. In spite of some of these issues being ongoing during periods of construction, they have been adequately addressed with relevant remedial action taken where necessary. The site has been adequately cleaned up, with some ongoing landscape management and maintenance underway.

**Appendix A**  
**CURRICULUM VITAE: M SHAM & R SHAM**

# CV: Monique Terese Sham

## PERSONAL DATA

**Name:** Monique Terese Sham  
**Address:** 71 Kommetjie Road, Fish Hoek, Cape Town  
**Marital Status:** Divorced  
**Home Language:** English  
**Race:** White  
**Gender:** Female  
**Cell:** +27 72 989 5119  
**Email:** [moniquesham@gmail.com](mailto:moniquesham@gmail.com)  
**Fax:** +27 86 546 5552

## PROFILE

Monique is an environmental consultant with more than 15 years experience in the Environmental Management industry. She is an EAPASA Registered Environmental Assessment Practitioner (EAP) and an EAPASA appointed EAP Registration Assessor. She is also certified with the Southern African Institute of Ecologists and Environmental Scientists (SAIE&ES) and is a member of the Environmental Law Association (ELA), the International Association for Impact Assessment South Africa (IAIASa), and the Water Institute of Southern Africa (WISA). Monique holds a BA Degree in Geography & Environmental Science and Media & Communication Studies from Monash as well as a BSc (Hons) degree from Wits in Geography and Environmental Studies and is currently undertaking an LLB degree part-time through UNISA. Monique conducts Basic Assessments and is involved on construction sites with managing and monitoring construction processes in terms of EMPs. She is also involved in the preparation or rehabilitation plans and monitoring rehabilitation work on sites.

## PREVIOUS EMPLOYMENT & EXPERIENCE

### ENVIRONMENTAL CONSULTANT (June 2008 – present)

#### Private consultant & Associate of KHULA Environmental Consultants, Cape Town

- Experience in conducting Environmental Impact Assessments (EIAs) mainly in the Western Cape, but also in other South African provinces.
- Training of two municipalities for the Greening of the 2010 FIFA World Cup events.
- Construction phase Environmental Control Officer (ECO) for industrial, retail and residential developments.

### ENVIRONMENTAL CONSULTANT (May 2007 – MAY 2008)

#### SRK Consulting Engineers and Scientists, Cape Town

- Experience in managing large Environmental Impact Assessment (EIA) processes in the Western Cape including management of specialists, liaising with clients/landowners, attending project meetings as well as co-ordinating public participation processes.
- Compilation (report writing as well as production/printing of reports) and review of EIAs and Environmental Management Plans (EMPs).
- Construction phase ECO for a various developments.

### ENVIRONMENTAL CONSULTANT (March 2003 – May 2007)

#### Holgate and Associates Environmental Management Services, Johannesburg

- Experience in conducting Specialist Faunal and Floral Surveys, Specialist Agricultural Studies, Visual Assessments, Wetland rehabilitation and management plans, and Environmental Management Plans (EMP's).

- Compilation and management of numerous Scoping and EIA processes (mainly for the construction of residential developments in Gauteng) both in terms of the EIA Regulations under the Environmental Conservation Act (ECA – up to June 2006) and the NEMA Regulations (from June 2006 onwards).
- Fieldwork included the identification of sensitive habitats (from faunal, floral and ecosystem functioning perspectives) and the mapping of these areas using a Global Positioning System (GPS), the delineation of wetlands using soil as an indicator and mapping wetlands using a GPS.
- Conducting independent reviews of EIA's for the City of Johannesburg (4 month contract).

#### **ENVIRONMENTAL EDUCATION CO-ORDINATOR (June 2006 - May 2007)**

##### **African Environmental Centre (a subsidiary of Holgate & Associates)**

- Managing the development and presentation of environmental training short courses and workshops. This included advertising and marketing the course, maintaining participant lists and organising venues and lecturers.
- Generating training material on the National Environmental Management Act (NEMA) EIA Regulations including Powerpoint presentations and hand out notes.
- Organising and managing over ten training courses on the NEMA EIA Regulations for in-house training at well-known environmental consultancy's as well as provincial governments.

#### **STUDENT TUTOR (2005)**

##### **University of the Witwatersrand**

- Tutoring 1<sup>st</sup> year Geography and Environmental Science students.
- Marking tests and preparing class notes.

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### **WORK EXPERIENCE**

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#### **Environmental Management:**

- Full Scoping and EIA for the proposed Altona development, Worcester (2007).
- Basic Assessment for a Reverse Osmosis Plant, Saldanha Bay (2008).
- Basic Assessment for Bungalow 60, Fourth Beach Clifton (2010).
- Basic Assessment for Bungalow 62, Fourth Beach Clifton (2010).
- Basic Assessment for the upgrade to the Gouda Bulk Water Supply Scheme, Gouda (2011)
- Basic Assessment for a residential development, Newlands (2011).
- Setback line application for Erf 3638, Oranjezicht (2011).
- Basic Assessment for a residential development, Freda's Lane, Diepriver (2012).
- Setback line application for Erf 3555, Simons Town (2012).
- Basic Assessment for the widening of an intersection, Noordhoek (2013).
- Basic Assessment for a freshwater pipeline, Laingsburg (2013).
- Section 24G Rectification process, Hohenhort Avenue, Constantia (2013).
- Section 24G Rectification process, Erf 5 Stofbergfontein (2013).
- Basic Assessment for a new High School, Hout Bay (2014).
- Section 24G Rectification process, Castle Rock, Simons Town (2014).
- Setback line application for Erf 797, Britannia Bay (2014).
- Applicability Checklist for additions to 1 Surf Way, Kommetjie (2014).
- Basic Assessment for a new school, Imhoff Farm Kommetjie (2016).
- Basic Assessment for the proposed development of Erf 1661, Franschoek (2017-present).
- Basic Assessment for the proposed development of Erf 271, Bakkershoogte (2017-2019).
- Applicability Checklists for numerous projects.
- Environmental Management Plans for construction phases of numerous residential, retail and industrial developments.



**Environmental Control Officer:**

- Vaal de Grace Golf Course development, Parys (2005-2006).
- Wilgeheuvel Ext. 30 residential development (2006-2007).
- Northgate Ext 47 residential development (2005).
- Glencoe Road, construction of a retaining wall adjacent to TMNP, Oranjezicht (2009).
- The Breakers residential development, Hout Bay (2009-2010).
- Bungalow 11, private residence, Clifton Beach (2009-2010).
- Erf 28 Castle Rock, private residence (2010).
- ECO Audit Report, Lake Michelle residential development, Noordhoek (2010).
- ECO Audit Report, Rondebosch Village OEMP (2010).
- Montague Park Industrial Development, Improvon Developments (2009-2011).
- Chevron Refinery Access Upgrade Project, ChevronSA (2010-2011).
- 1818 Head Road, private residence, Fresnaye Cape Town (2010-2011).
- House Lalor, Klein Slangkop Estate (2011).
- Lansdowne Corner Retail Development, Lansdowne Cape Town (2011).
- House Sharpe, Gay Road, Simons Town (2012).
- Grabouw Temporary School, Grabouw (2012).
- Construction of a fence around proposed industrial site, Cape Town International Airport (2012).
- Construction of internal civils at Rivers Edge II Industrial Park, Stikland (2012-2013).
- Construction of ablution and kitchen facilities, The Lookout Venue, V&A Waterfront (2013).
- Construction of retail facility, Helderburg Hyper, Somerset West (2012-2014).
- Construction of a bridge, Lichtenstein Castle, Hout Bay (2014).
- Construction of Bardale Phase 3 residential development, Kuilsriver (2014-present).
- Construction of Broughton Place residential development, Constantia (2014-present).
- Construction of Schoongezicht residential development, Brackenfell, (2014-present).
- Rehabilitation of works near a watercourse at Hazendal Wine Estate, Stellenbosch (2015).
- Rehabilitation of works near a watercourse at Hazendal Wine Estate, Stellenbosch (2015).
- Construction of a Commercial development (car dealership), William Simpson Tokai (2016-2017)
- Extension of Houmoed Avenue, Masiphumelele, CoCT (2015-2017)
- Construction of an Industrial development, Philippi (2016-2017)
- Construction of a commercial development and upgrade of fuel station, Piketberg (2016-2017)
- Installation of civils infrastructure including roads and services, Phase 2 Stonehurst Estate (2016-2017)
- Construction of Atlantic Hills industrial development, Durbanville (2016 – present)
- Upgrade of Kommetjie Road, Sun Valley (2016-present)
- Upgrade of the V&A Cruise Terminal, V&A Waterfront (2017-2018)
- Construction of an access road, Lichtenstein Castle, Hout Bay (2017-present)
- Construction of an Agripark, Stellenbosch, Abland (2018-present)

**Water Use License Applications:**

- Residential development within 500m of a wetland, Freda's Lane, Diepriver (2012).
- Pipeline crossing a river, Laingsburg (2012).
- Rehabilitation and maintenance of a river, Forest Glade, Tokai (2013).
- Abstraction of water from a wetland, Noordhoek (2017).

**Environmental Training:**

- Compilation of training material for Environmental Management Courses on the NEMA EIA Regulations presented to City of uMlathuze officials, Golder & Associates, SEF and private consultants (2006)
- Organisation of training courses including venue arrangements, course material etc for Environmental Management Courses on the NEMA EIA Regulations presented to private consultants (2006)
- Compilation of training material and presentation of a one-day workshop *Environmental Report Writing in terms of the NEMA Requirements* to students and young professionals at the University of the Western Cape (2020)

**Environmental Review and Commenting:**

- Independent review and commenting on development/planning applications for the City of Joburg using various planning tools including the Joburg Metropolitan Open Space System (JMOSS) and various GIS programmes (2005)

**EDUCATION****BACHELOR OF LAWS (2020 - current)****University of South Africa****LLB – Part-time**

- Currently registered and completing the relevant course modules part-time through UNISA

**MASTER OF SCIENCE (incomplete)****University of Johannesburg****MSc in Environmental Management – Part-time**

- Research essays of between 40 and 80 pages were completed on the following topics:
- Waste management
- Water quality and pollution in South Africa
- Risk Assessment
- Terrain evaluation
- Environmental Impact Assessments
- Integrated Environmental Management
- Life Cycle Analysis
- Sustainable development
- Environmental change

**This degree has not yet been obtained as personal circumstances did not allow me to submit my final mini-dissertation. All class work (including numerous essays, field work, tests and exams) was completed with an average of 68%.**

**BACHELOR OF SCIENCE WITH HONOURS (2005)****University of Witwatersrand****BSc (Hons) in Geography & Environmental Studies - Full-time**

- My year research project was entitled ***“Public participation in environmental assessment: A tool for sustainable development”***
- **Courses Completed:**
- Environmental Management
- Agrofoods
- Environmental Policy and Practice
- Tourism

**BACHELOR OF ARTS (2002-2004)****Monash University, South Africa**

- **Majors:**
- Geography & Environmental Science
- Media & Communication Studies

**MATRICULATION (2001)****West Ridge High School, Roodepoort****Matriculation with Exemption****Subjects:**

- English                      HG      B

- Afrikaans                    HG     A
- Mathematics                SG     D
- Art                            HG     C
- History                      HG     D
- Geography                  HG     C

#### **CONTINUING EDUCATION – SHORT COURSES**

- Tree identification course – Walter Sisulu Botanical Gardens (2005)
- ISO 14001 Environmental Auditing Course – University of Johannesburg (2006)
- Workshop on NEMA Regulations – African Environmental Centre (2006)
- Microsoft Office Project 2007 – New Horizons Computer Learning Centre (2007)
- Air Quality Management Workshop – Ward Karlson Consulting (2014)
- Public Speaking & Presentation Skills Short Course – Confident Communicator (2017)
- Integrated Water Resource Management & WULAs Short Course – Carin Bosman Sustainable Solutions (2018)
- Conduct outcomes-based assessment course (No. 115753) – Networx for Career Development (2019)

#### **COMPUTER LITERACY**

- Fully computer literate with experience in MS Office Suite of programmes (Word, Excel, Project, Power Point etc), Windows, Arcview GIS (Geographical Information System) and ArcGIS.
- Experienced in the use of a GPS.

#### **RESEARCH**

- Presented a paper on environmental policies at universities at the Annual Geography Students Conference in South Africa – October 2004.
- Honours year research focussed on public participation in environmental assessments as a tool for sustainable development.
- Presented a paper on the value of public participation in environmental assessment decision-making at the International Association for Impact Assessors (IAIA) Conference in Stavanger, Norway – May 2006.
- Presented a paper on the value of public participation in environmental assessment decision-making at the International Association for Impact Assessors South Africa (IAIAsa) Conference in Pilansberg, South Africa – August 2006.
- Masters research (incomplete) was on the Blesbokspruit Ramsar Wetland – delineating and creating an appropriate buffer for the wetland in order to promote its ecological integrity.

#### **MEMBERSHIPS / AFFILIATIONS**

- Registered EAP with the Environmental Assessment Practitioners Association of South Africa (EAPASA).
- Member of the South African International Association of Impact Assessment (IAIAsa).
- Committee member of the IAIAsa Western Cape Branch, Portfolio: Professional Development.
- National Executive Committee member of IAIAsa, Portfolio: Secretary.
- Certified with the Southern African Institute of Ecologists and Environmental Scientists (SAIE&ES).
- Certified with the Water Institute of Southern Africa (WISA).
- Member of the Environmental Law Association (ELA).

#### **LEADERSHIP**

- Prefect both Primary and High School

#### **PAST ACHIEVEMENTS**

- Received a full bursary to attend Monash University.
- Received a full merit bursary to attend the University of Witwatersrand.
- Received a merit bursary to attend the University of Johannesburg.

## Curriculum Vitae – Robert Sham

### PERSONAL DATA

<b>Name:</b>	Robert Vincent Sham	<b>Address:</b>	10 de Villiers Way, Glencairn, Cape Town
<b>Date of Birth:</b>	16 September 1986	<b>Cell:</b>	084 824 5736
<b>SA ID No.:</b>	8609165205089	<b>Tel:</b>	(061) 167 2674
<b>Languages:</b>	English & Afrikaans	<b>Email:</b>	robert.sham@gmail.com
<b>Passport:</b>	Yes, RSA	<b>Drivers Licence:</b>	Yes, code B

### PROFILE

- Devoted hard worker with an excellent employment record;
- Graduated in February 2008 with a Bachelor of Arts degree from Monash University double majoring in Geography & Environmental Science and Communications and Media;
- Good knowledge of the South African environmental and legal framework;
- Fast learner with good general knowledge;
- Good report writing capabilities;
- Good communication skills;
- Excellent computer and GIS skills;
- Strong focus on Health and Safety and
- Extensive and varied experience and training in the environmental industry, including: Report writing for professionals, Risk assessment training, compliance with National Environmental Management :Waste Act (NEMWA).
- Graduate Member of SAIOSH and member of IAIAA.

### ACADEMIC HISTORY

#### BACHELOR OF ARTS HONOURS IN ENVIRONMENTAL MANAGEMENT (2013-2017)

##### UNISA

Completed the BA Honours course in Environmental Management at UNISA in 2017.

#### BACHELOR OF ARTS (2005 - 2008)

##### Monash University

Graduated with a Bachelor of Arts (BA) degree double majoring in Geography & Environmental Science and Communication and Media Studies in February 2008. Obtained an average of 70% for all units undertaken.

#### SAFCERT (Matriculation) (2004)

##### West Ridge High School

Performed well at Matric level to attain a 74% average, and was awarded certificates for highest mark in group for Geography (HG), Home Economics (HG) and Mathematics (SG).

### ACHIEVEMENTS

- Prefect in both Primary and High School.
- Achieved the highest marks for Home Economics, Geography & Mathematics in 2004.
- Was awarded the Matric 2001 Trophy for succeeding against all odds.
- Awarded a full bursary for Monash University.
- Keen interest in sport, served as captain for junior hockey and cricket sides.
- Represented the First Hockey team from 2001 – 2004.
- Organiser of Action Cricket for Monash University South Africa in 2007 which won the universities sports team of the year award in the same year.
- Accepted to Monash University, graduated with a Bachelor of Arts Degree.
- Unblemished employment record
- Appointed Health & Safety Representative at Mills & Otten Environmental

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## WORK HISTORY

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### **Associate Environmental Consultant – KHULA & MSEC Environmental Consultants (February 2017 -present)**

- Environmental Auditing for construction projects and operational facilities;
- Environmental Assessments terms of the National Environmental Management Act (NEMA);
- Waste Management Licence Applications in terms of the National Environmental Management: Waste Act (NEMWA);
- Conducting various environmental investigations and reporting including Environmental Health Impact Assessments, contamination assessments, dust and waste management plans.
- Environmental Control Officer for various construction projects.

### **Environmental Scientist – Mills & Otten Environmental Consultants (October 2010 – February 2017)**

- Environmental Auditing for construction projects and operational facilities;
- Basic Environmental Assessments in terms of the National Environmental Management Act (NEMA);
- Waste Management Licence Applications in terms of the National Environmental Management: Waste Act (NEMWA);
- Contamination Assessments (predominantly hydrocarbon contamination assessments, chemical spills, transfer of land) in terms of local and international standards including soil vapour surveys, sampling, ground water monitoring and sampling using specialised equipment;
- Compilation and auditing implementation of Environmental management programmes;
- Risk Assessments at fuel installations and other facilities, including use of specialised software;
- Compilation of Part 8 Notifications in terms of NEM:WA;
- Proposal and management of hydrocarbon remediation;
- Conducting borehole census;
- Supervision of borehole drilling;
- Logging of soils and borehole chips;
- Oversight of junior and contractor work;
- Aquifer tests (Slug and pump tests) and data interpretation;
- Geographic Information Systems (GIS) geo-referencing, digitizing, reprojections and cartography (Arc, Planet GIS, Quantum GIS);
- Surfer Software: preparation of Site Layout Plans Conceptual Site Models, Modelling of groundwater and contamination plumes.;
- Appointed as Health & Safety Representative, form part of the Health & Safety committee and have undergone various HSSE training including BP Control of Works Training, Engen Permit to work, First Aid, Defensive Driving as well as other various internal HSSE training;

- Responsible for the preparation of a variety of HSSE documentation for site work including Health and Safety plans, Emergency Plans, Method Statements and Risk Assessments;

**Environmental Technician – The MSA Group (June 2008 – September 2010)**

- Environmental Auditing for construction projects;
- Environmental Impact Assessments in terms of the National Environmental Management Act (NEMA);
- Waste Management Licence Applications in terms of the National Environmental Management: Waste Act (NEMWA);
- Applications for and renewals of Prospecting Rights in terms of the Minerals and Petroleum Resources Development Act (MPRDA);
- Maintenance of the tenure information system (Microsoft Access Database);
- Assist in the creation of Legal Registers for municipalities and petrochemical companies;
- Preparation of proposals and tender documentation;
- Project management;
- Geographic Information Systems (GIS) geo-referencing, digitizing, reprojections and cartography (Arc);
- Public Participation, managed the online public participation portal;

**Geological Data Capturer: The MSA Group (February 2008 – May 2008)**

- Capturing and cleaning geological data, undertaking quality control tasks;
- Assisting with GIS tasks including digitising and georeferencing.

**Part-Time Prospective Student Officer: Monash South Africa (January 2005 – January 2008)**

- Dealing with telephonic enquiries from prospective students;
- Capturing prospective student information;
- Representing the University at career expositions;
- Sending out University information to prospective students.

## **Appendix B**

### **DATES OF ECO SITE INSPECTIONS**

4 June 2018 (Environmental Awareness Training)

6 June 2018

25 June 2018

9 July 2018

15 August 2018

21 September 2018

23 October 2018

20 November 2018

11 December 2018

16 January 2019

20 February 2019

25 March 2019

18 April 2019

22 May 2019

13 June 2019

18 July 2019

14 August 2019

17 September 2019

18 October 2019

20 November 2019

13 December 2019

23 January 2020

24 February 2020

20 March 2020



## **Appendix C**

### **SITE PHOTOGRAPHS**



Figure 1: View of the north-western corner of Generations School (23 January 2020).



Figure 2: View in a north westerly direction of the western boundary of Generations School showing undisturbed western area and revegetated swale (23 January 2020).





Figure 3: View of western boundary of Generations School with spaces beneath fence evident (23 January 2020).



Figure 4: View of the south western corner of the site where swales lead to stormwater pipe from site (23 January 2020).





Figure 5: View in a north westerly direction of the Generations school entrance (20 March 2020).



Figure 6: View in a northerly direction of the Generations school entrance (20 March 2020).



Figure 7: View in a north-easterly direction of Generations School entrance landscaping. (23 January 2020).



Figure 8: View in south easterly direction of the through-road constructed on the right of way servitude to the neighbouring Imhoff Waldorf School Campus (20 March 2020).





Figure 9: Through road constructed on eastern part of the site leading towards neighbouring Imhoff Waldorf School Campus (20 March 2020).

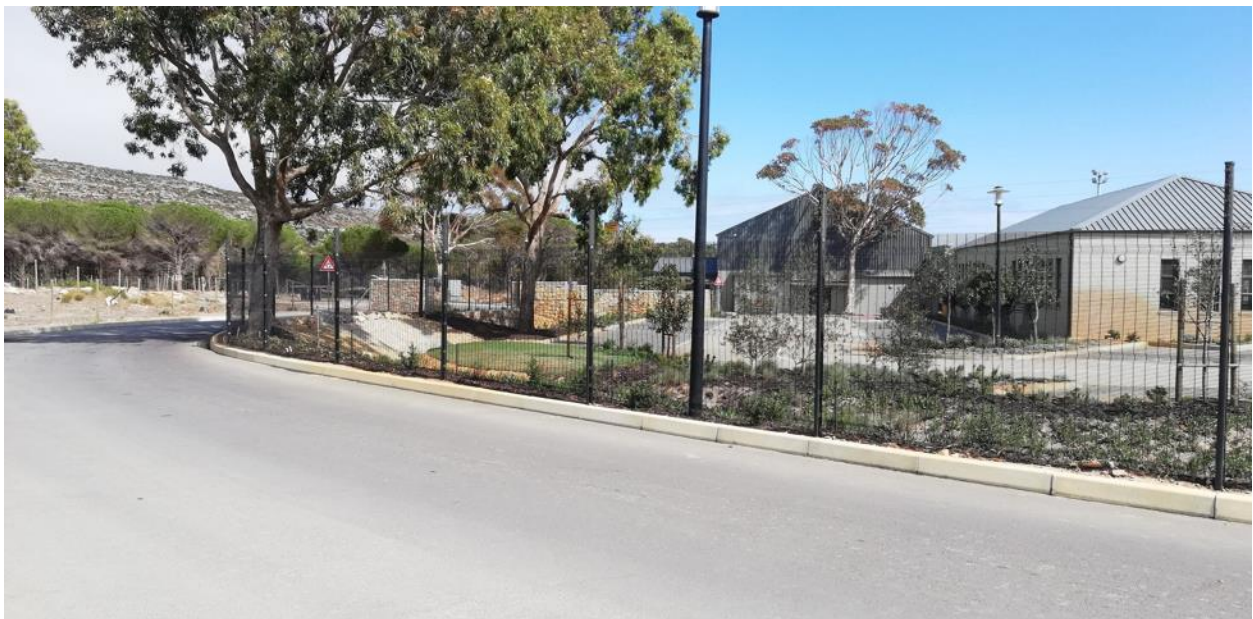


Figure 10: View westward towards Generations School across through road constructed on the right of way servitude to the neighbouring Imhoff Waldorf School Campus (20 March 2020).



Figure 11: View of site entrance where Environmental and other posters displayed Poster also displayed at site office (15 August 2018).





Figure 12: View of mesh fencing western boundary during August 2018.





Figure 13: View of mesh fencing north western corner during August 2018.

**Appendix D**  
**AUTHORITY NOTIFICATION LETTER 13 APRIL 2017**

13 April 2017

Department of Environmental Affairs and Development Planning  
Directorate: Development Management Region 1  
1 Dorp Street  
Cape Town  
[Rondine.Isaacs@westerncape.gov.za](mailto:Rondine.Isaacs@westerncape.gov.za)

ATT: Rondine Isaacs

**NOTICE OF COMMENCEMENT – PROPOSED CONSTRUCTION OF THE IMHOFF WALDORF SCHOOL AND IMHOFF CAMPUS ON THE REMAINDER OF CAPE FARM NO. 1529, KOMMETJIE**

**DEADP REF: 16/3/3/1/A6/45/2025/15**

Please be informed that construction has commenced with the installation of services for the Imhoff Waldorf School and Imhoff Campus on Remainder of Cape Farm No. 1529, Kommetjie. There appears to have been a misunderstanding between the holder of the Environmental Authorisation and the current landowner. The current landowner (Red Cliff Properties) commenced with the installation of services for the school site approximately a month ago in terms of conditions contained in the LUPO approval granted by the City of Cape Town in respect of the development (Final Notification Letter dated 28 July, 2016, Reference 70245392 and the Agreement of Sales between the current landowner and Imhoff Campus (Pty) Ltd/Imhoff Waldorf School. The issue has been identified and the holder of the EA would like to clarify this situation and rectify the misunderstanding so as to remain fully compliant with the EA.

The following is being provided in accordance with Condition 9 of the EA:

***9. Seven calendar days' notice, in writing, must be given to the competent authority before commencement of construction activities. Commencement for the purpose of this condition includes site preparation.***

This letter, dated 13 April 2017, is the written notice that construction has commenced in February 2017 with the installation of services from Kommetjie Road to the school site. As mentioned above, the reason notification was not submitted earlier to the Department is due to a miscommunication/understanding. The activities commenced to date are minor in that they are only for the services to the site (i.e. a trench has been dug). All Search and Rescue operations have already been conducted and therefore the impact is considered negligible.

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

Site details: Remainder of Cape Farm No. 1529, Kommetjie  
SG 21 digit code: C01600000000152900000  
Co-ordinates: 34° 08' 29.81"S 18° 20' 47.37"E  
EIA Reference No.: 16/3/3/1/A6/45/2025/15

**9.2 The notice must also include proof of compliance with the following conditions described herein:**

**Conditions 6, 7, 14, 22 and 24.**

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

**6.1 notify all registered Interested and Affected Parties of –**

**6.1.1 the outcome of the application;**

**6.1.2 the reasons for the decision;**

**6.1.3 the date of the decision; and**

**6.1.4 the date of issue of the decision.**

**6.2 draw the attention of all registered Interested and Affected Parties to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulation, 2014;**

**6.3 draw the attention of all registered Interested and Affected Parties to the manner in which they may access the decision; and**

**6.4 provide the registered Interested and Affected Parties with:**

**6.4.1 the name of the holder (entity) of this Environmental Authorisation,**

**6.4.2 name of the responsible person for the Environmental Authorisation,**

**6.4.3 postal address of the holder,**

**6.4.4 telephonic and fax details of the holder,**

**6.4.5 email address, if any.**

Refer to attached notification email(s) which contain all the information as listed above sent to all registered interested and affected parties 5 days after the environmental authorisation was issued (i.e. on 18 May 2016) and re-issued as per the Minister's request on 5 July 2016.

**7. The listed activities, including site preparation, must not commence within 39 (thirty nine) calendar days from the date of issue of this Environmental Authorisation.**

Work on site commenced in February 2017 which is both at least 39 days after the date of the Environmental Authorisation and the Ministers Appeal Decision.

**14. The holder must appoint a suitably experienced Environment Control Officer ("ECO"), for the duration of the construction and rehabilitation phases of implementation.**

**The ECO must –**

**14.1 be appointed prior to commencement of any land clearing or construction activities commencing;**

**14.2 ensure compliance with the EMPr and the conditions contained herein;**

**14.3 keep record of all activities on site; problems identified; transgressions noted and a task schedule of tasks undertaken by the ECO;**

**14.4 remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed.**

Monique Sham of KHULA Environmental Consultants has been appointed to provide the services of ECO for the development. Monique has a BA Degree in Geography and Environmental Science and has completed a BSc (Hons) degree in Geography and Environmental Studies. She has over 13 years experience in the environmental management field and has monitored various developments in terms of EMPs for 9

years. A full CV can be provided upon request. As mentioned previously, the ECO appointment is only commencing today (13 April 2017) due to a misunderstanding. The ECO was however involved in the Search and Rescue operations conducted in November 2016.

***22. Search and rescue must be undertaken in the area mapped by the botanical specialist as containing *Lachenalia pallida* before commencement of construction activities. All *Lachenalia pallida* in this area must be rescued and relocated off site to the ecological corridor west of the site. This must be done in accordance with the South African National Parks ("SANParks") and a suitably qualified and experienced professional.***

Please find attached a collation of detailed emails regarding the initial planning and report back on the bulb relocation work which was conducted in consultation with SANParks and a botanical specialist in November, 2016. In addition to this a comprehensive report prepared by Alex Lansdowne, a consultant who coordinated much of the Search and Rescue activity on behalf of SANBI and SANParks has been attached. A copy of the attendance register and additional photographic evidence is also attached for information.

***24. Any plant species identified by the botanist which are transplantable and which are located within the building footprint must be relocated to an open area on the site and must be used for landscaping. The relocation must be conducted before commencement of construction activities.***

Nick Helme was consulted and provided input in to the transplanting of other plant species on the site. A copy of his email correspondence regarding this is attached for information.

I trust the above is in order and would like to re-iterate that Imhoff Campus (Pty) Ltd/Imhoff Waldorf School have done everything in their powers to comply with the EA to date. Should you have any queries, or require clarification, please do not hesitate to contact me on 072 989 5119.

Best regards,



Monique Sham  
BA BSc (Hons) (EnvSc)  
Associate Consultant  
**KHULA Environmental Consultants**



Monique Sham &lt;moniquesham@gmail.com&gt;

## Notice of EA - Imhoff Waldorf School & Campus

Monique Sham &lt;moniquesham@gmail.com&gt;

18 May 2016 at 12:29

Bcc: Howard Gold <howard.gold@capetown.gov.za>, rsmart@capenature.co.za, Marné van der Westhuizen <marné.vanderwesthuizen@sanparks.org>, Rondine Isaacs <Rondine.Isaacs@westerncape.gov.za>, andre.nieuwoudt@westerncape.gov.za, Jonathan Windvogel <jonathan.windvogel@westerncape.gov.za>, Imhoff Farm <info@imhofffarm.co.za>, Felicity Purchase <FelicityAnne.Purchase@capetown.gov.za>, Clive Bester <clive@kayakafrica.com>, Claus Mischker <claus@headland.co.za>, info@kommetjie.org, Richard Bryant <RichardB@citadel.co.za>, info@keag.org.za, Glen.vanHarte@westerncape.gov.za, "Mmachaka Thandi (BVL)" <MmachakaT@dws.gov.za>, Joseph Padbury <joseph.padbury@gmail.com>

Dear Registered Interested and Affected Party

### **NEMA BASIC ASSESSMENT: NOTICE OF ENVIRONMENTAL AUTHORISATION**

**Proposed construction of the Imhoff Waldorf School and Imhoff Campus on a portion of Remainder Cape Farm 1529, Imhoff Farm, Kommetjie**

**DEA&DP REFERENCE NO.: 16/3/3/1/A6/45/2025/15**

**Notice is hereby given of an environmental authorisation and appeal process in terms of the amended NEMA Environmental Impact Assessment (EIA) Regulations 2010 and 2014:**

The Imhoff Waldorf School NPC plans to construct a new education facility on a portion of remainder Cape Farm 1529, Imhoff Farm, Kommetjie. Following the completion of the required Basic Assessment process, the delegated authority viz, the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) issued Environmental Authorisation (EA) for the project on **13 May 2016**. A copy of the EA, which includes the reasons for the decision, has been attached to this email for your information. The EA contains the details of the holder of the authorisation including postal address, telephone and fax numbers.

Interested and affected parties are also hereby notified that an appeal procedure is provided for in Chapter 7 of the EIA Regulations. Appeals must comply with the provisions contained in the National Appeal Regulations 2014 (as amended) and the appeal process is detailed in Section F of the attached EA. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from Appeal Authority at: Tel. (021) 483 3721, E-mail [Jaap.DeVilliers@westerncape.gov.za](mailto:Jaap.DeVilliers@westerncape.gov.za) or URL <http://www.westerncape.gov.za/eadp>

Any appeal and responding statement must be submitted to the address below:

By post: Western Cape Ministry of Local Government, Environmental Affairs & Development Planning  
Private Bay X9186  
Cape Town  
8000

By fax: (021) 483 4174

By hand: Att: Mr Jaap de Villiers (tel: 021 483 3721)  
Room 809  
8<sup>th</sup> Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

**NOTE:** For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and / or via e-mail to [Jaap.DeVilliers@westerncape.gov.za](mailto:Jaap.DeVilliers@westerncape.gov.za)

Please feel free to contact **KHULA Environmental Consultants C/o Monique Sham, Tel: 072 989 5119** or [moniquesham@gmail.com](mailto:moniquesham@gmail.com) should you have any queries or require additional information.

Regards,

Monique Sham

**Environmental Consultant**

B.A. B.Sc. (Hons) Env. Sci.

Member: IAIAAsa, WISA, SAIE&ES, ELA

Cel: 072 989 5119

Fax: 086 546 5552

Skype: moniquesham



**DEADP 13 May 2016 EA.pdf**

4961K





Monique Sham &lt;moniquesham@gmail.com&gt;

## Re-issue of Notice of EA - Imhoff Waldorf School & Campus

Monique Sham &lt;moniquesham@gmail.com&gt;

5 July 2016 at 16:26

To: Howard Gold <howard.gold@capetown.gov.za>, rsmart@capenature.co.za, Marné van der Westhuizen <marne.vanderwesthuizen@sanparks.org>, "Mmachaka Thandi (BVL)" <MmachakaT@dws.gov.za>, andre.nieuwoudt@westerncape.gov.za, Jonathan Windvogel <jonathan.windvogel@westerncape.gov.za>, Felicity Purchase <FelicityAnne.Purchase@capetown.gov.za>, Glen.vanHarte@westerncape.gov.za, Rondine Isaacs <Rondine.Isaacs@westerncape.gov.za>, Imhoff Farm <info@imhofffarm.co.za>, Richard Bryant <RichardB@citadel.co.za>, Joseph Padbury <joseph.padbury@gmail.com>  
Cc: Claus Mischker <claus@headland.co.za>, Clive Bester <clive@kayakafrica.com>

Dear Registered Interested and Affected Party (I&amp;AP)

### NEMA BASIC ASSESSMENT:

### RE-ISSUE OF NOTICE OF ENVIRONMENTAL AUTHORISATION

**Proposed construction of the Imhoff Waldorf School and Imhoff Campus on a portion of Remainder Cape Farm 1529, Imhoff Farm, Kommetjie**

**DEA&DP REFERENCE NO.: 16/3/3/1/A6/45/2025/15**

**As per the Minister's request, notice of an environmental authorisation and appeal process in terms of the amended NEMA Environmental Impact Assessment (EIA) Regulations 2014 and the National Appeals Regulations 2014, is hereby re-issued:**

The Imhoff Waldorf School NPC plans to construct a new education facility on a portion of remainder Cape Farm 1529, Imhoff Farm, Kommetjie. Following the completion of the required Basic Assessment process, the delegated authority viz, the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) issued Environmental Authorisation (EA) for the project on **13 May 2016**. A copy of the EA, which includes the reasons for the decision, has been attached to this email for your information. The EA contains the details of the holder of the authorisation including postal address, telephone and fax numbers.

In a letter dated 1 July 2016 the Minister requested that notification of the EA be re-issued to all registered I&AP's within 14 days of the date of the letter.

Interested and affected parties are hereby notified that an appeal procedure is provided for and must comply with the provisions contained in the National Appeal Regulations 2014 (as amended) and the appeal process is detailed in Section F of the attached EA. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from Appeal Authority at: Tel. (021) 483 3721, E-mail [Jaap.DeVilliers@westerncape.gov.za](mailto:Jaap.DeVilliers@westerncape.gov.za) or URL <http://www.westerncape.gov.za/eadp>

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Private Bag X9186  
Cape Town  
8000

By fax: (021) 483 4174

By hand: Att: Mr Jaap de Villiers (tel: 021 483 3721)  
Room 809  
8<sup>th</sup> Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

**NOTE:** For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and / or via e-mail to [Jaap.DeVilliers@westerncape.gov.za](mailto:Jaap.DeVilliers@westerncape.gov.za)



Please feel free to contact **Monique Sham**, Tel: 072 989 5119 or [moniquesham@gmail.com](mailto:moniquesham@gmail.com) should you have any queries or require additional information.

Regards,

Monique Sham

**Environmental Consultant**

B.A. B.Sc. (Hons) Env. Sci.

Member: IAIAA, WISA, SAIE&ES, ELA

Cel: 072 989 5119

Fax: 086 546 5552

Skype: moniquesham



**DEADP 13 May 2016 EA.pdf**

5676K

## Imhoff Waldorf School and Imhoff Campus development on Imhoff Farm

### Bulb relocation project - Email correspondence record

February 2017

*Below is a record of the pertinent correspondence relating to the planning and execution of the bulb relocation project on the future Imhoff Waldorf School and Imhoff Campus site.*

*The bulb relocation project was carried out as compliance with conditions E.22 and E.24 of the Environmental Authorisation EIA reference number 16/3/3/1/A6/45/2025/15.*

---

**From:** Clive Bester - Kayak Africa [<mailto:clive@kayakafrica.com>]

**Sent:** 28 October 2016 13:58

**To:** 'Nick Helme' <[botaneek@iafrica.com](mailto:botaneek@iafrica.com)>; 'Mark Botha' <[mark@ecological.co.za](mailto:mark@ecological.co.za)>; 'Carly Cowell' <[Carly.Cowell@sanparks.org](mailto:Carly.Cowell@sanparks.org)>; 'Jacky Smith' <[jaclyn.smith@sanparks.org](mailto:jaclyn.smith@sanparks.org)>; 'Gigi Laidler' <[G.Laidler@sanbi.org.za](mailto:G.Laidler@sanbi.org.za)>; 'Stefanie Roux' <[stefanie@imhoffwaldorf.org](mailto:stefanie@imhoffwaldorf.org)>; 'Monique Sham' <[moniquesham@gmail.com](mailto:moniquesham@gmail.com)>; 'Claire Alberts' <[admissions@imhoffwaldorf.org](mailto:admissions@imhoffwaldorf.org)>

**Cc:** 'Ian' <[iansolomon1@gmail.com](mailto:iansolomon1@gmail.com)>; 'Francis Jackson' <[francis@imhoffwaldorf.org](mailto:francis@imhoffwaldorf.org)>

**Subject:** RE: Imhoff bulb translocation - Detailed planning

Hi Everyone,

Next email on the planning for the bulb translocation:

#### **1) Confirmed for 2Nov planning session (08h30 start)**

- Clive Bester – Imhoff Campus (Pty) Ltd (IC); project coordinator (082 565 5802)
- Stefanie Roux – Imhoff Waldorf School (IWS)
- Nick Helme – botanist specialist
- Carly Cowell – SANParks
- Jacky Smith – SANParks (not sure????)
- Gigi Laidler – Peninsula CREW
- Monique Sham – Environmental Control Officer (ECO)

#### **2) Dates and processes confirmed as follows:**

Prior to 2Nov – Clive and Nick Helme to recce suitable landing sites in preparation for 2Nov; also to discuss any equipment needs for 2Nov.

- 2Nov16 – 08h30 meet on site at Imhoff Farm (suggest in the parking area alongside the cheese dairy). Purpose is to identify and mark the lifting sites and the landing sites; and to generally plan the main event which will be 4Nov16
- 4Nov16 – actual translocation day.

Many thanks all!

Clive

---

**From:** Clive Bester - Kayak Africa [<mailto:clive@kayakafrica.com>]

**Sent:** 04 November 2016 11:53

**To:** 'Nick Helme' <[botaneek@iafrica.com](mailto:botaneek@iafrica.com)>; 'Mark Botha' <[mark@ecological.co.za](mailto:mark@ecological.co.za)>; 'Carly Cowell' <[Carly.Cowell@sanparks.org](mailto:Carly.Cowell@sanparks.org)>; 'Jacky Smith' <[jaclyn.smith@sanparks.org](mailto:jaclyn.smith@sanparks.org)>; 'Gigi Laidler' <[G.Laidler@sanbi.org.za](mailto:G.Laidler@sanbi.org.za)>; 'Stefanie Roux' <[stefanie@imhoffwaldorf.org](mailto:stefanie@imhoffwaldorf.org)>; 'Monique Sham' <[moniquesham@gmail.com](mailto:moniquesham@gmail.com)>; 'Claire Alberts' <[admissions@imhoffwaldorf.org](mailto:admissions@imhoffwaldorf.org)>; 'alexlansdowne@hotmail.com' <[alexlansdowne@hotmail.com](mailto:alexlansdowne@hotmail.com)>

**Cc:** 'Francis Jackson' <[francis@imhoffwaldorf.org](mailto:francis@imhoffwaldorf.org)>

**Subject:** RE: Imhoff bulb translocation - Detailed planning

Hi Everybody,

A quick note of thanks to all for your assistance with the bulb translocation today – much appreciated, and I was certainly very glad to have your help and guidance!!

Apologies for not seeing everyone at the end too.

Looking forward:

Lifting:

It is clear that we are going to have to have another 3 or 4 lifting sessions to get everything that is available. Expert advice is that we have two to three weeks to do this. We will be firstly identifying other “resources” in terms of people to do the lifting, and will then be in touch to plan and schedule days to do it.

Storing and planting out:

I will ASAP be in touch with Carly, Gigi, Alex, Monique and others to discuss options for this.

So once again from my side – thank you!!

Clive

Imhoff Waldorf School and Imhoff Campus (Pty) Ltd

---

**From:** Carly Cowell [<mailto:Carly.Cowell@sanparks.org>]

**Sent:** 07 November 2016 17:50

**To:** Clive Bester - Kayak Africa <[clive@kayakafrica.com](mailto:clive@kayakafrica.com)>; 'Gigi Laidler' <[G.Laidler@sanbi.org.za](mailto:G.Laidler@sanbi.org.za)>; alexlansdowne@hotmail.com; Victoria Wilman <[V.Wilman@sanbi.org.za](mailto:V.Wilman@sanbi.org.za)>

**Cc:** 'Stefanie Roux' <[stefanie@imhoffwaldorf.org](mailto:stefanie@imhoffwaldorf.org)>; 'Monique Sham' <[moniquesham@gmail.com](mailto:moniquesham@gmail.com)>; calvinamor790@gmail.com

**Subject:** RE: Imhoff bulb translocation - Reports

Hi Clive,

Thank you to you and your team for organising the day it was great to be part of the process. For your report I would like to add that I took 4 boxes of seed heads that will be kept at the Kirstenbosch Millennium Seed Bank by Victoria Wilman. They will dry them and keep 50% for the Seed Bank, with Imhoff Waldorf School and Imhoff Campus (Pty) Ltd as the owners of the seed in the bank. You can tell the school that these seeds will be kept in the vault and will last 500 years and more. The rest of the seed I would like to use to sow into the recipient site in the corridor that we planted in last week. Any more seed that is collected, could be dried at Kirstenbosch, you will just have to make contact with Victoria. I believe that Alex took the bulbs that are to be stored and is working on a plan to keep them safe with him or at the West Lake facility of the City of Cape Town?

Alex and I spoke about identifying other recipient sites near Imhoff and I think that Nick Helm should come in on this conversation and perhaps he could identify others sites in Kommetjie that include the City's land too?

I am away in Agulhas and Bontebok Parks for the next 2 weeks and then have to organise a workshop for the Department of Environmental Affairs on the 22 November, so I'm afraid that I won't be able to assist in the next round of lifting. I am available in the first week of March next year to help plant and then again in mid-April.

Kind regards

Carly

---

Disclaimer: 1) Confidentiality: This email communication and any attachments sent from [carly.cowell@sanparks.org](mailto:carly.cowell@sanparks.org) to [clive@kayakafrica.com](mailto:clive@kayakafrica.com) on 2016-11-07 17:50:30 are confidential and may contain privileged or copyright information. You may not present this message to another party without consent from the sender. If you are not [clive@kayakafrica.com](mailto:clive@kayakafrica.com) please notify [carly.cowell@sanparks.org](mailto:carly.cowell@sanparks.org) and delete this email and you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited. 2) Liability: This email is not a binding agreement and does not conclude an agreement without the express confirmation by the sender's superior or relevant authorisation of SANParks. 3) Viruses: SANParks does not certify that this email is free of viruses or defects. 4) Requested: SANParks does not consent to its employees sending un-asked for emails which contravene the law. In the event that you feel this email is such, please notify SANParks in order for the appropriate corrective action to be taken. 5) Advice: Any views or opinions presented in this email are solely those of the author and do not necessarily represent those of SANParks. Any actions taken on the basis of this email are at the reader's own risk. 6) Other: The sender of this email is expressly required not make any defamatory statements. Any such communication is contrary to SANParks policy and outside the scope of the employment of the individual concerned. SANParks will not accept any liability in respect of such communication, and the employee responsible will be personally liable for any damages or other liability arising. Thank you. South African National Parks 643 Leyds Street, Muckleneuk, Pretoria, South Africa

---

**From:** alex lansdowne [<mailto:alexlansdowne@hotmail.com>]

**Sent:** 16 November 2016 13:42

**To:** [clive@kayakafrica.com](mailto:clive@kayakafrica.com)

**Subject:** Imhoff S&R

Hi Clive,

I really enjoyed working at Imhoff - it is a great project. Your enthusiasm for conserving and saving the biodiversity on site is unique. I appreciate this passion.

As feedback from our previous activities:

- We lifted around 3500-4000 Lachenalia pallida bulbs, as well as about 75 Wachendorfia, from the donor site to be developed.

- These are all in waiting at Kirstenbosch in an office, I need to fetch them this week pending further plans. They need to be stored in cool, dry soil or planted out.
- I have accessioned a handful of bulbs to the Kirstenbosch collection, run by Graham Duncan. This will ensure the population is represented in a back up population ex hort.
- The fire break receptor site is largely saturated, however I briefly spied some habitat along the fire break a bit further north east on the fire break with the capacity to take more bulbs.
- There is much more biodiversity at the site and a plan needs to be made for proper receptor sites to be identified, for the species worth rescuing;
- There are species that Carly does not want planted at the Fire Break.

Yours,

Alex Lansdowne

Consultant Restoration Horticulturist / Biodiversity Search & Rescue Consultant

061 065 3524

**From:** alex lansdowne [mailto:alexlansdowne@hotmail.com]

**Sent:** 17 November 2016 16:27

**To:** Clive Bester - Kayak Africa <clive@kayakafrica.com>

**Subject:** RE: Imhoff S&R

Cool.

I saw at Kirstenbosch today that they're all in one place now.

Alex

Consultant Restoration Horticulturist / Biodiversity Search & Rescue Consultant

061 065 3524

**From:** Nick Helme [mailto:botaneek@iafrica.com]

**Sent:** 18 November 2016 07:50

**To:** 'Stefanie Roux' <stefanie@imhoffwaldorf.org>; 'Clive Bester - Kayak Africa' <clive@kayakafrica.com>

**Subject:** Imhoff bulb translocation - 18 Nov update

Hi guys

I took a look at the site yesterday and can report that it seems well cleared of the *Lachenalia*, with the only evident plants (about 40) along the southern border. In terms of the RoD I believe that the Search and Rescue requirements have now been met.

Whilst there I noticed another bulb that should however be translocated – the Near Threatened *Moraea elsiae* (see <http://www.ispotnature.org/node/582833> for a pic). This species has yellow flowers which are only open in the afternoon, and I estimate that there are about 30-50 plants, mainly along the western boundary, that could be translocated. The bulbs are likely to be much deeper and harder to get than the *Lachenalia*. Plants should be evident for at least 3 wks still. Paul Emms missed this in his survey because it would not yet have been in flower when he did the survey – highlighting the constraints of such work.

The *Lampranthus emarginatus* vygies (about 70) also need to be translocated before construction starts – is this going to be possible? I strongly recommend that both this and the *Moraea* be moved to

the adjacent areas within the proposed corridor, as this is the best available habitat, and there is a very high degree of certainty that it will ultimately be conserved.

I also took a look at the Kommetjie Commonage, and could not find any suitable receiving sites there – all too grassy and/or wet, too many molerats, or very deep sands.

Nick

---

END.

# Imhoff School Biodiversity Search & Rescue

## Summer 2016/2017 Report

*Alex Lansdowne, Consultant Biodiversity Services*

**To:** Clive Bester, Imhoff Waldorf School

### **Summary:**

Site: Imhoff Waldorf Primary School Development Site, Kommetjie

Species Concerned: *Lachenalia pallida* (Declining), *Moraea elsiae* (Near Threatened), *Lampranthus emarginatus* (Least Concerned), *Haemanthus sanguineus* (Least Concerned), *Orbea variegata* (Least Concerned)

Species Transfer Data:

Species	5,6,7/12/2016	2,3,6/02/2017	TOTAL:
Lachenalia pallida*	851	572	1423
Moraea elsiae*	136		136
Lampranthus emarginatus	587	154	895
Haemanthus sanguineus		11	11
Orbea variegata		916	916

\*Species lifted and stored.

Receptor Site:

A fire break on the Western portion of the site to be developed was identified as a receptor for plant biodiversity that can persist under a mowing regime.

This complements the SANParks fire break, and future environmental corridor.

---

### **Conclusion:**

Biodiversity Search and Rescue was conducted.

The Imhoff Waldorf School made every effort to reach environmental compliance.

The Imhoff Waldorf School cooperated to facilitate the Biodiversity Search & Rescue of Threatened species on site, rehome in receptor sites within the environmental corridor and SANParks fire breaks; and re-accommodate plant biodiversity within the property, to a future fire break.

Compliance will be met for Specific Conditions 22. and 24. in 'Section E. Conditions of Authorisation'; specified in the *Environmental Authorisation of Proposed Construction of The Imhoff Waldorf School and Imhoff Campus on the remainder of Cape Farm No. 1529, Kommetjie, 2016*, once stored bulbs are planted out in designated receptor sites.

(EIA Reference Number: 16/3/3/1/A6/45/2025/15)

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### **Search & Rescue:**

Monday 5/12/2016; Tuesday 6/12/2016: Dedicated to lifting two redist geophyte species, *Moraea elsiae* & *Lachenalia pallida*.

Wednesday 7/12/2016: Dedicated to transferring *Lampranthus emarginatus* from the site to be developed to the school fire break.

Thursday 2/02/2017: Dedicated to lifting redlist geophyte species *Lachenalia pallida*; and transferring plants of *Lampranthus emarginatus* from the site to be developed to the school fire break.

Friday 3/02/2017; Monday 6/02/2017: Dedicated to transferring plants of *Orbea variegata* and *Haemanthus sanguineus*, from the site to be developed to the school fire break. GPS point data was also taken.

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### **Transferral:**

Threatened species:

*Moraea elsiae* (Near Threatened): Challenges were encountered removing some individuals from deep rocks. However, more were removed than the botanist's assessment of the population size of around 100 plants.

*Lachenalia pallida* (Declining): Over the course of November – February two to three thousand *Lachenalia pallida* were removed by the Search and Rescue team, as well as school and Dragon Tree Project volunteers.

Other species:

*Haemanthus sanguineus*: A healthy population of at least one hundred occurs on site. *Haemanthus sanguineus* generation length can be near a century, only begins to flower after a decade. These species were lifted and transferred to the school fire break.

*Orbea variegata*: Masses of this succulent species were transferred to the fire break.

*Lampranthus emarginatus*: Almost 900 individuals of the dominant vygie on site, were transferred into the fire break receptor. 4 transects of this species were laid.

The lower fire break has been saturated with *Lampranthus emarginatus* and *Orbea variegata*.

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**Voucher: Pictured:** *Transects of Lampranthus emarginatus being planted.*





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### **Further:**

Geophytes of *Moraea elsiae* and *lachenalia pallida* have been accessioned to the Kirstenbosch Living Species collection, under the curation of Graham Duncan. These two species populations can now persist *Ex Hort.*, as a conservation insurance mechanism. They could potentially be used for further restoration projects of these species.

Seed and all bulbs stored are at the Millenium Seed Bank, Kirstenbosch.

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### **Recommendations:**

1. Assess and monitor establishment of *Lampranthus emarginatus* and *Orbea variegata*.
  2. Further transfer *Haemanthus sanguineus* to school fire break, when leaves visible.
  3. Late March plant-out stored geophytes – into fire break and other designated receptor sites.
  4. Scatter collected geophyte seed – into fire break and other designated receptor sites.
  5. Sieve geophyte flora in synchronization with initial development – transfer immediately into fire break and other designated receptor sites.
  6. Mark and temporarily fence-off of Fire break, to protect biodiversity from grazing or disturbance as development begins.
- 

### **Acknowledgements:**

Botanists Nick Helme, *Independent*; Zoe Paulson, *Notes from a Cape Town Botanist*; Donovan Kirkwood, *Independent*.

Dragon Tree Project Volunteers

Search & Rescue Labour Team

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*Alex Lansdowne*

*Biodiversity Search & Rescue Consultant*

*February 2017*

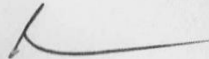

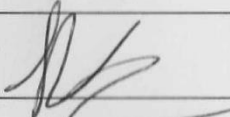
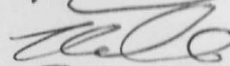



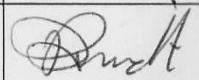
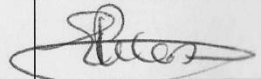
*061 065 3524*

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# ATTENDANCE REGISTER

Project: Imhoff Waldorf School & Imhoff Campus, Kommetjie: Search & Rescue of *Lachenalia pallida*

Date: 2 November 2016

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Director: N.S. Steytler MSc (Cons. Biology)

## ATTENDANCE REGISTER

**Project:** Imhoff Waldorf School & Imhoff Campus, Kommetjie: Search & Rescue of *Lachenalia pallida*

**Date:** 2 November 2016

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Clive Bester	clive@kayaketrice.co.za	082 565 5802		

**KHULA** | environmental  
consultants

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Director: N.S Steytler MSc (Cons. Biology)





Photograph 1: Representatives from SANParks and Imhoff Waldorf School, as well as a botanical specialist, being inducted as to which plant species are to be translocated.



Photograph 2: Relocation of the bulbs and other species identified by the botanical specialist





Photograph 3: Collection of seeds was done, in addition to replanting of bulbs.



Monique Sham &lt;moniquesham@gmail.com&gt;

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## Imhoff bulb translocation - Detailed planning

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**Nick Helme** <botaneek@iafrica.com>

24 October 2016 at 14:15

To: Gigi Laidler <G.Laidler@sanbi.org.za>, Clive Bester - Kayak Africa <clive@kayakafrica.com>, Mark Botha <mark@ecological.co.za>, Carly Cowell <Carly.Cowell@sanparks.org>, Jacky Smith <jaclyn.smith@sanparks.org>, Stefanie Roux <stefanie@imhoffwaldorf.org>, Monique Sham <moniquesham@gmail.com>, Claire Alberts <admissions@imhoffwaldorf.org>

Cc: Ian <iansolomon1@gmail.com>, Francis Jackson <francis@imhoffwaldorf.org>, Ismail Ebrahim <I.Ebrahim@sanbi.org.za>

Hi Gigi et al

No other plant Species of Conservation Concern on site, but other translocatable bulbs include Wachendorfia paniculata, Geissorhiza aspera, Albuca cooperi, etc. Also a few Lampranthus emarginatus.

I envisage collecting the fruit/seeds of all of the above, as well as the bulbs, at the same time. Bulbs can be put in plastic (if translocated within a few hrs) or paper bags, and the seeds can just be broadcast in the receiving areas.

We should be able to demarcate the main lifting and translocation areas with danger tape and about 40 – 60 posts (maybe fence droppers cut in half, or 40cm dowels), as they only have to survive 2 or 3 days.

Nick

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**From:** Gigi Laidler [mailto:[G.Laidler@sanbi.org.za](mailto:G.Laidler@sanbi.org.za)]

**Sent:** 24 October 2016 11:54 AM

**To:** Clive Bester - Kayak Africa; 'Nick Helme'; 'Mark Botha'; 'Carly Cowell'; 'Jacky Smith'; 'Stefanie Roux'; 'Monique Sham'; 'Claire Alberts'

**Cc:** 'Ian'; 'Francis Jackson'; Ismail Ebrahim

**Subject:** RE: Imhoff bulb translocation - Detailed planning

[Quoted text hidden]

**Appendix E**


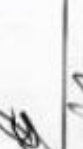


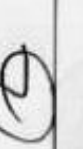


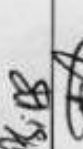
**ENVIRONMENTAL AWARENESS TRAINING ATTENDANCE  
REGISTER**



# ATTENDANCE REGISTER - ENVIRONMENTAL AWARENESS TRAINING

Project: Generations School, Imhoff Kommetjie

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