

Botanical Report:



**BOTANICAL REPORT FOR MR. B.P MHLANGANISO FOR A
DOLORITE QUARRY ON THE REMAINING EXTENT OF PORTION 19
OF THE FARM ECOWA102 IN THE ELLIOT DISTRICT,
DRAKENSBERG DISTRICT COUNCIL, EASTERN CAPE REGION.**



PREPARED FOR:

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June 2016

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Consultant Nadia Barnardo: B.Sc. (Botany & Geography), B.Sc. (Hons) Botany, M.Sc. (Botany)

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DETAILS OF THE SPECIALIST

i) Details of the specialist

Name of the Practitioner: Nadia Barnardo Botanist for Stellenryck Environmental Solutions

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ii) Expertise of the specialist

• Qualifications

Nadia Barnardo is a Botanist and Environmental Assessment Practitioner for Stellenryck Environmental Solutions and abridged CV is provided below.

National Senior Certificate (2007)

Framesby High School

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	(Afrikaans, English, Biology, Science, Xhosa, Maths)
B.Sc. 2010 (NMMU)	Botany & Geography (Botany I, II & III; Geography I, II & III; Geology I & II; Zoology I & II)
B.Sc. (Hons) 2011 (NMMU)	Ecology, Conservation Biology, Landscape Ecology & GIS
M.Sc. (Botany) 2013 (NMMU)	Sustainable harvesting of wild populations of <i>Cyclopia intermedia</i> in Kouga, Eastern Cape, South Africa.
Botanist & Junior Environmental Practitioner (2014 – Present)	Stellenryck Environmental Solutions

- Summary of past experience

She has completed 32 botanical surveys, three environmental impact studies and two BAR's. During her time associated with Stellenryck Environmental Solutions (SES), Ms Barnardo has gained valuable experience and understanding in completing Environmental Impact Assessments, associated with mining related projects. Nadia has experience in writing environmental reports with regards to EMP's, EIA's and Botanical Reports.

Projects done:

Applicant:

Lolo and Lolo Development Services CC

- Sand Botanical Survey (Mar 2015)
- Gravel Botanical Survey & EMP (Feb 2015)
- Hard Rock Botanical Survey (Apr 2015)

Heron Mere

Botanical Survey (Apr 2015)

T & A Transport

- Sand Botanical Survey (Mar 2015)
- Sand Botanical Survey & EMP (Mar 2015)

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Buffalo Property Trust - Sand	Botanical Survey (January 2015)
DK Pringle Earthworks CC - Sand	Botanical Survey & EMP (Mar 2015)
JD Brown - Sand	Botanical Survey (Nov 2014)
Potgieter Quarries (Pty) Ltd – Hard Rock	Botanical Survey (Dec 2014)
Stutt Quarries CC – Hard Rock	Botanical Survey (Feb 2015)
K. Kok - Sand	Botanical Survey (Dec 2014)
Silver Ruby Trading 15 (Pty) Ltd – Sand	Botanical Survey (Mar 2015)
Yireh Shalom	Botanical Survey (Jan 2015)
Dell	Botanical Survey (Nov 2014)
Belden	Botanical Survey (Dec 2014)
Irhafu Minerals - Hard Rock	Botanical Survey & EMP (May 2015)
Nobel	Botanical Survey (Apr 2015)
PHC	Botanical Survey (Feb 2015)
Blue Rock Quarries (Pty) Ltd - Hard rock	Botanical Survey (June 2015)
R.L. Hageman – Sand	Botanical Survey (April 2015)
Green Agri Trust – Gravel	Botanical Survey (June 2015)
Green Agri Trust – Sand	Botanical Survey & BAR (June 2015)
Sukses Besigheidstrust – Gravel	Botanical Survey & BAR (Aug 2015)
Ferreira – Lime	Botanical Survey (Dec 2015)
CGS Property Trust – Gravel	Botanical Survey (Dec 2015)
Mlambo Investments	
- Gravel	Botanical Survey (Oct 2015)
- Hard rock	Botanical Survey (Oct 2015)
Kashula – Gravel	Botanical Survey (Nov 2015)
A.L. Moss – Gravel	Botanical Survey (Oct 2015)

DECLARATION OF INDEPENDENCE

I, N. Barnardo declare that -

General declaration:

- I act as the independent botanist in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant.
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting botanical reports;
- I will have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing – any decision to be taken with respect to the application by the competent authority; and – the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will provide the competent authority with access to all information at my disposal regarding the application whether such information is favourable to the applicant or not;
- All the particulars furnished by me in this form are true and correct;

Disclosure of Vested Interest (delete whichever is not applicable)

I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Regulations.

SCOPE OF REPORT

Botanical report for Mr. B.P. Mhlangano for a dolorite quarry on the remaining extent of portion 19 of the farm ECOWA102 in the Elliot district, Drakensberg district council, Eastern Cape region.

LIMITATIONS OF THE REPORT

A major limitation of this report was that only two site visits were conducted. This limits the report with regards to the number and type of species recorded. Due to the influence of seasonality on different plant species it is possible that some species, e.g. protected geophytes, were dormant when the site visit was conducted. Also some species that were recorded could only be identified to genus level as no flowers or fruits were present. This can be prevented by sampling in every season

over a number of years to produce a complete and full species list of the area, but this sort of sampling is not viable due to time constraints.

SUMMARY

The site is situated at 31°21'20.16"S, 27°50'23.27"E approximately 3km West of Elliot in Drakensberg Foothill Moist Grassland vegetation (Gs 10) (Mucina & Rutherford 2006). The vegetation that covers the mine area can be rated as semi-intact as it still hosts grassland species expected in this vegetation type but has been impacted by some light cattle grazing.

Thirty two (32) species of vascular plants were recorded in the proposed mine area. Two invasive species (*Cirsium vulgare* and *Datura stramonium*) were identified. None of the recorded species are protected by any legislation and all but one is classified as species of least concern (LC). Some individuals of *Boophone disticha* and *Aloe maculata* are present on site.

The mining area will be reclaimed to a grass cover and used for grazing. The nature of the soil on site and the post mining land use would require a seed mixture that includes palatable and less palatable species to facilitate in protection against wind and soil erosion. It is recommended that some tree species be planted on the benches in the excavation during the rehabilitation process.

Other top soil that is available should be collected and properly stockpiled to be used for the revegetation/rehabilitation of the mining area after completion. The top soil will include seeds of the ground cover and herbaceous species normally found in the area. Due to the presence of the invasive and alien species the top soil would also contain some of these seeds and it is thus very important to routinely check the area during and after the rehabilitation of the mine for these species and to immediately remove any new plants that should establish. To counteract the rapid erosion that occurs in this region vegetation cover should be established as soon as possible.

Due to the agricultural activities that dominate the area and the primary landuse on site being grazing the site has been slightly transformed and it still hosts grassland species expected in this vegetation type. The proposed activity would, temporarily, completely transform the area. Given the information collected for this report this will not have a significant impact on floral biodiversity provided that the *Boophone* and *Aloe* species are transplanted. The post mining revegetated grassland with in fill planting in the excavation and the potential water collection will result in a valuable resource for travelling faunal species.

SITE DESCRIPTION

The site is situated at 31°21'20.16"S, 27°50'23.27"E approximately 3km West of Elliot in Drakensberg Foothill Moist Grassland vegetation (Gs 10) (Mucina & Rutherford 2006). The vegetation that covers the mine area can be rated as semi-intact as it still hosts grassland species expected in this vegetation type but has been impacted by some light cattle grazing.

A previous mine scar on site results in some rain water collecting in the excavation area. This creates the opportunity for limited water associated plants such as *Zantedeschia* sp. to establish.



Figure 1: Site locality showing proximity to urban areas.

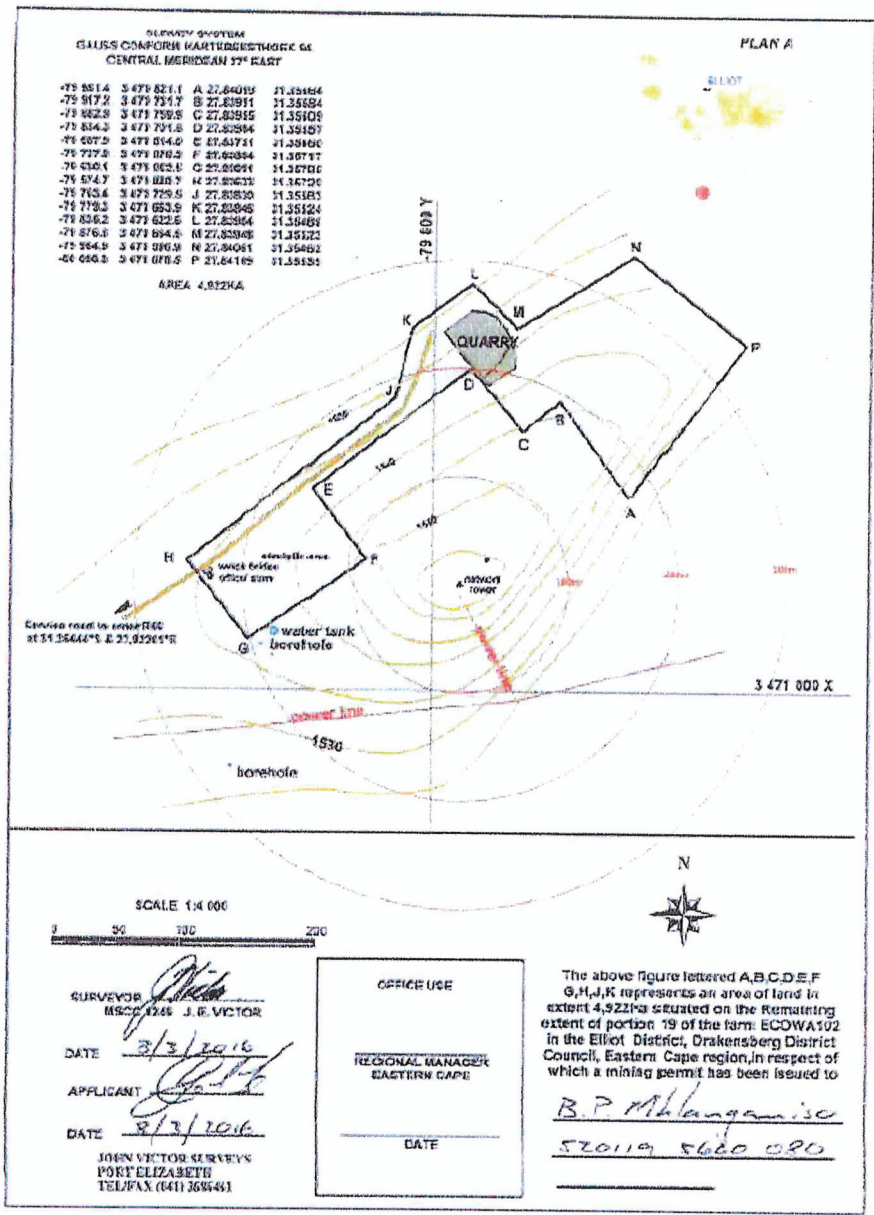


Figure 2: Mine plan.

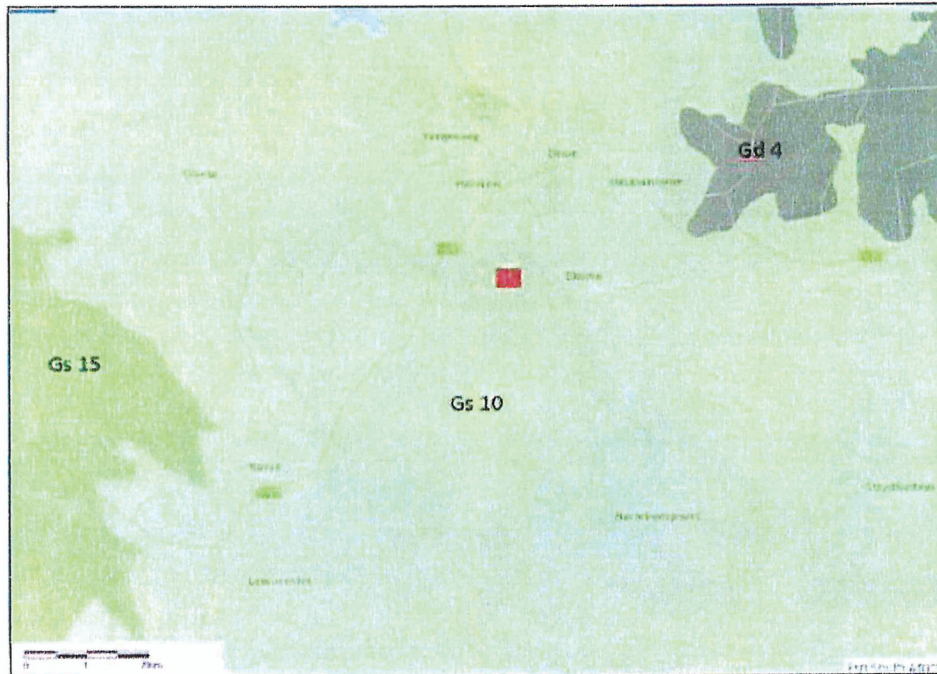


Figure 3: Classification of vegetation type according to Mucina and Rutherford (2006).

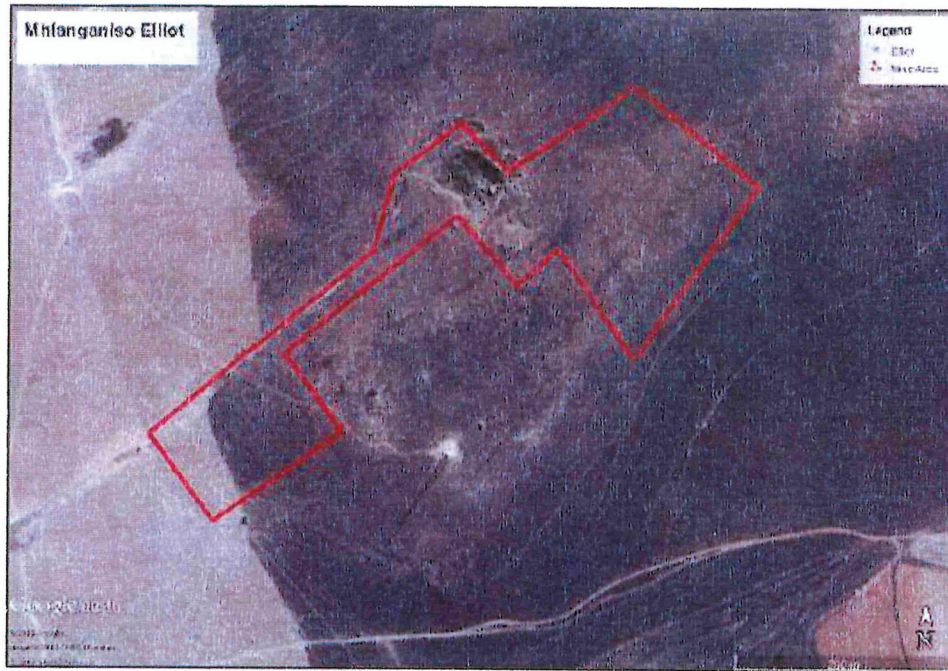


Figure 4: Proposed mining area with previous mine scar.





Figure 5: Grassland vegetation on the proposed mine area.

Drakensberg Foothill Moist Grassland is classified as a least threatend vegetation type. Roughly 2-3% of the 23% target is conserved. This includes the areas that are statutorily conserved in the uKhahlamba Drakensberg Park, Ntsileni Wildlife Reserve as well as in the Karkloof, Mount Currie, Coleford, Ford Nottingham, Impendle, Ngeli, and Umgeni Vlei Nature Reserves. Almost 20% if thus vegetation tyhpe is already transformed for cultivation, plantations and by urban sprawl. Alien woody species of *Rubus*, *Acacia dealbata* and *Solanum mauritianum* may become invasive in places. Erosion is very low (49%), low (28%), and moderate (17%).

The vegetation and Landscape is characterised by terrain which is moderately rolling and mountainous, much incised by river gorges of drier vegetation types and forest, ans covered in forb-rich grassland dominated by short bunch grasses including *Themeda triandra* and *Tristachya leucothrix*.

Due to the considerable concentration of the local endemics as well as Drakensberg endemics, this unit might be reclassified as a Gd grassland unit after detailed analysis and its area included within the realm of the Drakensberg Alpine CE.

Important Taxa

Small Trees: *Protea roupelliae*, *Encephalartos ghellinckii*

Low Shrubs: *Anthospermum rigidum*, *Chrysocoma ciliata*, *Felicia filifolia*, *Gnidia kraussiana*, *Helichrysum odoratissimum*, *H. sutherlandii*, *Rhus discolor*, *Senecio burchellii*.

Graminoids: *Diheteropogon filifolius*, *Elionurus mutices*, *Eragrostis curvula*, *E. chloromelas*, *E. racemosa*, *Heteropogon contortus*, *Microchloa caffra*, *Monocymbium cerasiiforme*, *Panicum natalense*, *Rendlia altera*, *Sporobolus africanus*, *Themeda triandra*, *Trachypogon spicatus*, *Agrostis lachnantha*, *Alloteropsis semialata*, *Aristida congesta*, *Brachiaria serrata*, *Digitaria tricholaenoides*, *Eragrostis capensis*, *Eragrostis plana*, *Harpochloa fax*, *Hyparrhenia hirta*, *Panicum ecklonii*, *Paspalum dilatatum*, *Tristachya leucothrix*.

Herbs: *Helichrysum simillimum*, *Senecio retrorsus*, *Acalypha depressinerva*, *Ajuga ophrydis*, *Berkheya rhapontica*, *Conyza pinnata*, *Dicoma anomala*, *Euryops laxus*, *Haplocarpha scaposa*, *Helichrysum chionosphaerum*, *H. cooperi*, *H. herbaceum*, *H. nudifolium*, *H. subglomeratum*, *H. umbraculigerum*, *Hesperantha ingeliensis*, *Kohautia amatymbica*, *Mohria caffrorum*, *Pentanisia prunelloides*, *Schistostephium crataegifolium*, *Sebaea sedoides*, *Senecio asperulus*, *Vernonia natalensis*, *Wahlenbergia undulata*.

Herbaceous Climbers: *Rhynchosia totta*

Geophytic Herb: *Oxalis depressa*, *Cheilanthes deltoidea*, *C.hirta*, *Chlorophytum acutum*, *Disperis renibractea*, *Habenaria dregeana*, *H. lithophila*, *Haemanthus humilis*, *Hesperantha coccinea*, *Hypoxis rigidula*, *Ledebouria sandersonii*, *Moraea modesta*, *Nerine bowdenii*, *Oxalis corniculata*, *Rhodohypoxis baurii*, *Watsonia pillansii*, *Xysmalobium tysonianum*, *Zantedeschia albomaculata*.

Endemic Taxa

Herbs: *Alchemilla incurvata*, *Argyrolobium sericosemium*, *Diascia esterhuyseniae*, *Stachys rivularis*.

Geophytic Herbs: *Brachystelma molaventii*, *Dioscorea brownie*, *Ornithogalum baurii*

Succulent Shrub: *Delosperma wiunii*.

METHODOLOGY

♦ SITE VISIT AND SPECIES IDENTIFICATION:

The two site visits were conducted on 18 February and 24 May 2016 at 09:00. Three (3) hours was spent on the first site visit and 1 hour during the second site visit, doing a walk-through of the site, sampling species for identification. The walk-through was conducted by walking along the perimeter of the site and venturing into the middle of site to in a zig-zag pattern to sample species not found along the perimeter.

The plants were sampled and identified using various sources of literature: Urton & Page (1993), Vanderplank (1998), Manning, Batten & Bokelmann (2001), Coats Palgrave (2002), Van Oudtshoorn (2002), Manning (2007).

The species list was then cross-referenced with all relevant lists from applicable legislation to determine which species are classified as protected, threatened or endangered. The conservation status of each species was determined using the online version of the Red Data List available on the South African National Biodiversity Institute website (<http://redlist.sanbi.org/>). This is an online version of Raimondo et al. (2009) with some recent updates.

- PERMIT APPLICATIONS

Restricted activities such as the destruction, relocation and or removal of certain species might require a permit application to a government department. The legislations consulted were:

- Eastern Cape the Provincial Nature Conservation Ordinance of 1974 (PNCO)
- National Environmental Management: Biodiversity Act – Threatened & Protected species (2004)
- National Environmental Management: Biodiversity Act – Alien & Invasive species (2015)
- National Forest Act 84 of 1998

With reference to the alien and invasive species, permits are required for species listed as Category 2 species. The species that require permits are indicated in the species list provided at the end of the Botanical survey.

RESULTS

Thirty two (32) species of vascular plants were recorded in the proposed mine area. Two invasive species (*Cirsium vulgare* and *Datura stramonium*) were identified. None of the recorded species are protected by any legislation and all but one is classified as species of least concern (LC). Some individuals of *Boophone disticha* and *Aloe maculata* are present on site. A permit with reference to the PNCO is required for some of the species identified on site.

The *Boophone* individuals are found scattered along the North-Eastern face of the hill and the Aloes are found in a small cluster along the rocky outcrops on the North-Western crest of the hill.

The few other species found on site are characteristic of grassland vegetation. The species diversity is hampered to some extent due to the periodic grazing that impacts this area.

• ALIENS OR INVASIVE SPECIES

The two invasive species found in the proposed mine area are *Cirsium vulgare* and *Datura stramonium*, which are both classified as category 1b invasives. Regulation pertaining to invasive species is found in the Conservation of Agricultural Resources Act, 1983 (ACT No. 43 OF 1983):

"Combating of category 1 plants

- 15A. (1) Category 1 plants may not occur on any land or inland water surface other than in biological control reserves.
- (2) A land user shall control any category 1 plants that occur on any land or inland water surface in contravention of the provisions of sub-regulation (1) by means of the methods prescribed in regulation 15E.
- (3) No person shall, except in or for purposes of a biological control reserve –
- (a) establish, plant, maintain, multiply or propagate category 1 plants;
 - (b) import or sell propagating material of category 1 plants or any category 1 plants;
 - (c) acquire propagating material of category 1 plants or any category 1 plants.
- (4) The executive officer may, on good cause shown in writing by the land user, grant written exemption from compliance with the requirements of sub-regulation (1) on such conditions as the executive officer may determine in each case."

According to the Agricultural Research Council (1997) the best and recommended method for the control of any juvenile invasive species is manual uprooting. It is suggested that plants <1m be uprooted by hand-pulling. If the plant heights are >1m it is recommended that the top growth be cut away to expose the base of the plant and the soil be loosened manually before the base is pulled out. In large infestations a bulldozer may be used to uproot the plant base after the top foliage has been manually cut away. The bulldozing method is not normally used due to the damage to the soil and erosion concerns, but as this area is to be mined this is not a current concern. A detailed rehabilitation procedure once the mine is closed will mitigate the concerns regarding erosion.

• SPECIES OF SPECIAL CONCERN (SSC)

A few individuals of *Boophone disticha* are found in the proposed area. This species is classified as declining according to Raimondo et al (2009) and requires some conservation action. A small number of *Aloe maculata* species are also found on site and are protected by the PNCO. Chapter 4, Part 2 of the NEMBA provides the definitions of classes used to describe the special concern species:

"Listing of species that are threatened or in need of national protection

56. (a) critically endangered species, being any indigenous species facing an extremely high risk of extinction in the wild in the immediate future; 35
- (b) endangered species, being any indigenous species facing a high risk of extinction in the wild in the near future, although they are not a critically endangered species;
- (c) vulnerable species, being any indigenous species facing an extremely high risk of extinction in the wild in the medium-term future, although they are not a critically endangered species or an endangered species; and
- (d) protected species, being any species which are of such high conservation value or national importance that they require national protection, although they are not listed in terms of paragraph (a), (b) or (c)."

According to the South African National Red list categories: "A species is declining when it does not meet or nearly meet any of the five IUCN criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened, but there are threatening processes causing a continuing decline of the species".

It is for this reason that attempts must be made to translocate the *Boophone* and *Aloe* species found in the area. The process should not be too complicated provided that they are transplanted to an area with similar properties.



Figure 6: *Boophone disticha* otherwise known as the circumcision or gifbol plant



Figure 7: *Aloe maculata*.

DISCUSSION AND RECOMMENDATIONS

Due to the agricultural activities that dominate the area and the primary landuse on site being grazing the site has been slightly transformed and it still hosts grassland species expected in this vegetation type.

The proposed activity would, temporarily, completely transform the area. Given the information collected for this report it will simply result in transforming an already slightly transformed area. If an appropriate rehabilitation plan will be followed the area can be restored to its current landuse after mining has ceased. The inclusion of tree species in the excavation and the possibility of water collecting in the excavation post mining could create a unique ecosystem within the grassland region that could act as a refuge of certain species.

• RECOMMENDATIONS:

The mining area will be reclaimed to a grass cover and used for grazing. The nature of the soil on site and the post mining land use would require a seed mixture that includes palatable and less palatable species to facilitate in protection against wind and soil erosion. Disturbed areas can be re-vegetated with a grass cover by seeding with an appropriate mixture of:

Eragrostis curvula

Eragrostis chloromelas

Cynodon dactylon

Sporobolus africanus

Digitaria tricholaenoides

Panicum maximum

Chloris gayana – Soil stabilizer

Themeda triandra – Fire resistant

Hyparrhenia hirta – Less palatable and drought resistant and protects and stabilize soil.

Heteropogon contortus – Less palatable and hardy grass that can grow in poor soil

Trachypogon spicatus – Protection against soil erosion

None of these grasses poses any threat of proliferation. Seeding would take place when the phases are rehabilitated or in the spring from August to October and in autumn from March to middle April at an application rate of 7kg/ha each of the species mentioned. If the seeding application was unsuccessful the area should be treated with additional seed applications during the rain season.

It is recommended that some tree species be planted on the benches in the excavation during the rehabilitation process. Individual tree species can be planted with distances no less than 5-10m apart.

The following species are found in the indigenous forests in the Transkei and will provide unique ecosystem functions:

Euphorbia grandidens

Buxus macowanii

Capparis tomentosa

Coddia rudis

Ptaeroxylon obliquum

Nuxia floribunda

All of the above species can be obtained with some effort. For every tree a hole (0,5 x 0,5 x 0,5m) must be prepared by digging out some of the soil and filling it with a 75:25 mixture of good topsoil and compost and very light application of 2:3:2. Before the plant is introduced the soil mixture must be watered well. Once planted, and the remainder of the soil introduced, the trees must be watered again and be repeated at least every week for 2 months. Specimens of at least 1m high should be used to expedite the mitigation of visual impact.

All top soil that is available should be collected and properly stockpiled to be used for the revegetation/rehabilitation of the mining area after completion. The top soil will include seeds of the ground cover and herbaceous species normally found in the area. Due to the presence of the invasive and alien species the top soil would also contain some of these seeds and it is thus very important to routinely check the area during and after the rehabilitation of the mine for these species and to immediately remove any new plants that should establish. To counteract the rapid erosion that occurs in this region vegetation cover should be established as soon as possible.

CONCLUSION

Due to the agricultural activities that dominate the area and the primary landuse on site being grazing the site has been slightly transformed and it still hosts grassland species expected in this vegetation type. The proposed activity would, temporarily, completely transform the area. Given the information collected for this report this will not have a significant impact on floral biodiversity provided that the *Boophone* and *Aloe* species are transplanted. The post mining revegetated grassland with in fill planting in the excavation and the potential water collection will result in a valuable resource for travelling faunal species.

REFERENCES

- Agricultural Research Council 1997: Control of *Lantana camara*. Plant Protection Research Institute, Pietermaritzburg.
- Coates Palgrave, M. 2002: Trees of Southern Africa. 3rd Edition. Struik Publishers, Cape Town.
- Manning, J. 2007: Field Guide to Fynbos. Struik Nature, Cape Town.
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- Mucina, L. and Rutherford, M.C. (eds) 2006. The vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19. South African National Biodiversity Institute, Pretoria.
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- Vanderplank, H.J. 1999: Wildflowers of the Port Elizabeth Area. Gamtoos to Swartkops Rivers (The Coastal Bush and Fynbos Region). Bluecliff Publishing, Hunters Retreat.
- Van Oudtshoorn, F. 2002: Guide to Grasses of Southern Africa. Briza Publications, Pretoria.

LAWS AND LISTS

- CONSERVATION OF AGRICULTURAL RESOURCES ACT, 1983 (ACT No. 43 OF 1983)
- Eastern Cape Province Nature and Environmental Conservation Ordinance No. 19 of 1974.
- NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT 2004 (ACT NO, 10 OF 2004) Alien and invasive species lists, August 2014.
- NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT, 2004 (ACT 10 OF 2004): Amendment of critically endangered, endangered, vulnerable and protected species list, December 2007.
- NOTICE OF THE LIST OF PROTECTED TREE SPECIES UNDER THE NATIONAL FORESTS ACT, 1998 (ACT NO 84 OF 1998), September 2011.

SPECIES LIST

Table 1: Species list for the proposed mining area.

Species names with * are labelled as exotics and highlighted species are endemics as classified according to Raimondo et al. 2009. Invasive species are indicated according to NEMBA and species listed in the provincial ordinance are indicated.

FAMILY	Genus	species	Common name	Conservation status	Legislation
DICOTYLEDONS					
Anacardiaceae	<i>Searsia</i>	<i>discolor</i>	Grassveld Current	LC	
Aizoaceae	<i>Delosperma</i>	sp.			
Apiaceae	<i>Centella</i>	<i>asiatica</i>	Pennywort	LC	
Asteraceae	<i>Cirsium</i>	<i>vulgare</i>	Scottish thistle	Invasive (1b)	NEMBA
Asteraceae	<i>Berkheya</i>	sp.			
Asteraceae	<i>Gazania</i>	<i>krebsiana</i>	Botterblom	LC	
Asteraceae	<i>Gerbera</i>	<i>ambigua</i>		LC	
Asteraceae	<i>Helichrysum</i>	<i>rugulosum</i>		LC	
Asteraceae	<i>Senecio</i>	<i>burchelli</i>	Geel gif bos	LC	
Asteraceae	<i>Senecio</i>	<i>coronatus</i>	Grassland Senecio	LC	
Fabaceae	<i>Trifolium</i>	<i>burchellianum</i>	Wild clover	LC	
Fabaceae	<i>Crotalaria</i>	sp.			
Geraniaceae	<i>Pelargonium</i>	<i>sidoides</i>	Kalwerbossie	LC	
Lamiaceae	<i>Salvia</i>	<i>repens</i>	Kruipsalie	LC	
Lobeliaceae	<i>Lobelia</i>	<i>flaccida</i>		LC	
Malvaceae	<i>Hermannia</i>	<i>geniculata</i>		LC	
Onagraceae	<i>Oenothera</i>	<i>stricta</i>	Evening Primrose	Exotic	
Oxalidaceae	<i>Oxalis</i>	sp.			
Solanaceae	<i>Datura</i>	<i>stramonium</i>	Devil's apple	Invasive (1b)	NEMBA
Solanaceae	<i>Solanum</i>	<i>nigrum</i>	Common nightshade	Exotic	
MONOCOTYLEDON					
Amaryllidaceae	<i>Boophone</i>	<i>disticha</i>	Gif bol	Declining	PNCO
Araceae	<i>Zantedeschia</i>	sp.			
Asphodelaceae	<i>Aloe</i>	<i>maculata</i>	Common soap Aloe	LC	PNCO
Commelinaceae	<i>Commelina</i>	<i>africana</i>	Yellow commelina	LC	
Cyperaceae	<i>Cyperus</i>	<i>congestus</i>		LC	
Plantaginaceae	<i>Plantago</i>	<i>lanceolata</i>	Buckhorn plantain	LC	
Poaceae	<i>Cynodon</i>	<i>dactylon</i>		LC	
Poaceae	<i>Emgrastis</i>	<i>curvula</i>	African Love Grass	LC	
Poaceae	<i>Eragrostis</i>	<i>chloramelas</i>	Blue love grass	LC	
Poaceae	<i>Paspalum</i>	<i>dilatatum</i>	Dallis Grass	Exotic	
Poaceae	<i>Pennisetum</i>	<i>clandestinum</i>	Kikhuyu	Exotic	
Poaceae	<i>Sporobolus</i>	<i>africanus</i>	Ratstailgrass	LC	