

Example of the notification:



Makecha Development Associates trading as MDA, CC 1995/030752/23. Member: SAPI, SACTRP

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e-mail: [admin@mdagroup.co.za](mailto:admin@mdagroup.co.za)  
9 Dames Street, Westdene  
BLOEMFONTEIN

Our ref. 40611  
Contact person: Hanlie Groenewald  
17 February 2014

Owner of the farm Vaapoort 84/3  
PGL Boerdery  
P.O. Box 583  
Schweizer-Reneke  
2780

**ATTENTION: MR P.G. VAN ZYL**

**NOTIFICATION OF THE PROPOSED UPGRADING THE NORVALSPONT BULK WATER SUPPLY SYSTEM**

Notice is given in terms of Regulation 54(2)(b) of the Environmental Impact Assessment Regulations of 2010 No. R. 543 published in Government Notice No. 33306 of 18 June 2010 of the National Environmental Management Act (Act No. 107 of 1998) that an Application for Environmental Authorisation has been submitted to the Northern Cape Department of Environment and Nature Conservation for the following:

**Project:** Proposed upgrading of the bulk water supply to Norvalspont.

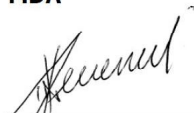
**Project by:** Umsobomvu Municipality.

**Locality:** Please refer to the attached map.

If you have any information or comments regarding the environmental impact of the proposed development or need additional information regarding the proposed development, please submit your name, contact information and interest to Hanlie Groenewald ([hanlie@mdagroup.co.za](mailto:hanlie@mdagroup.co.za) / as per contact details given above), within 30 days of date of notice.

Kind regards

**MDA**



**NEIL DEVENISH Pr. Pln A/1133/1999**  
Manager: Town Planning/Environmental

**Managing Members:**

H.F. Prinsloo, Pr. Pln (A/765/1994), B.Sc., M.TR.P. (UFS)  
N. Devenish, Pr. Pln (A/1133/1999), B.A., M.TR.P. (UFS)

**Assisted by:**

A.C. Rohrbeck, Pr. Pln (A/153/2009), B.Soc.Sc., M.TR.P (UFS)  
M.H. du Plessis, B.Sc. Geology, B.Sc. Hons. Geology (UFS)  
H. Groenewald, B.Sc. Zoology, B.Sc. Hons. Zoology, M.Sc. Zoology (UFS)

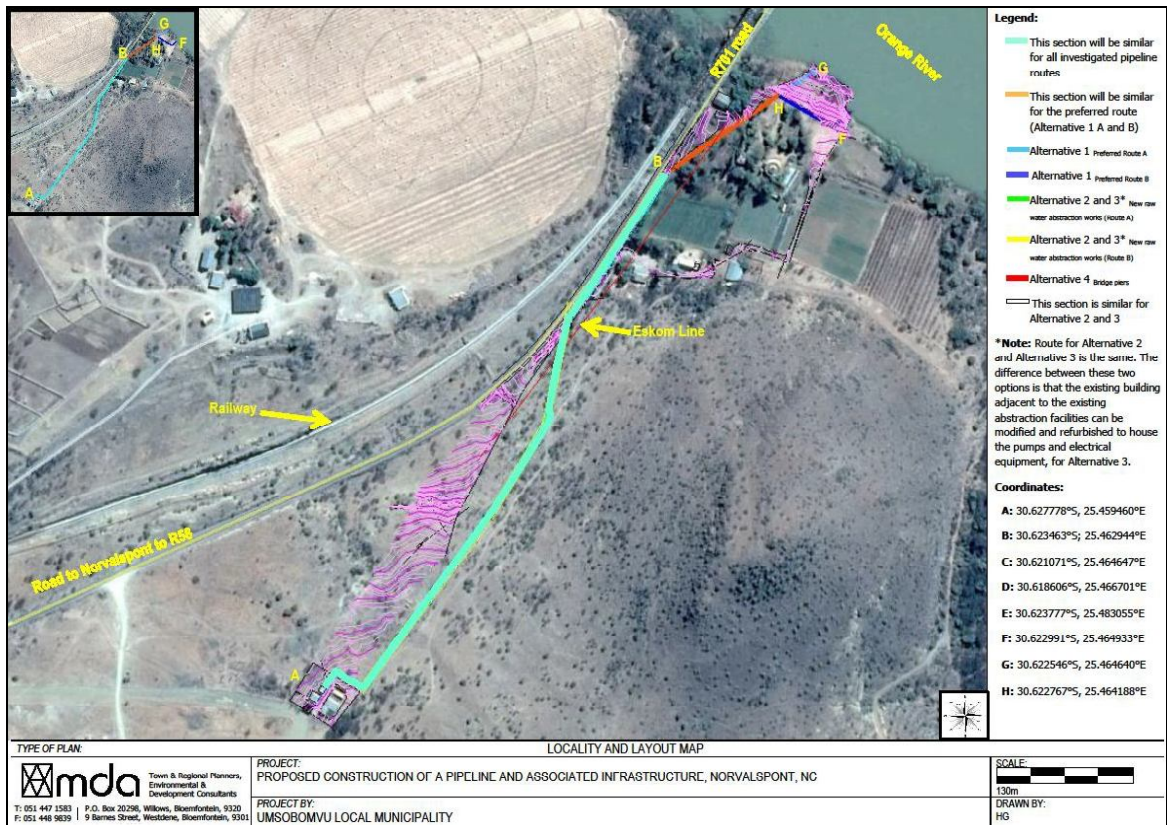
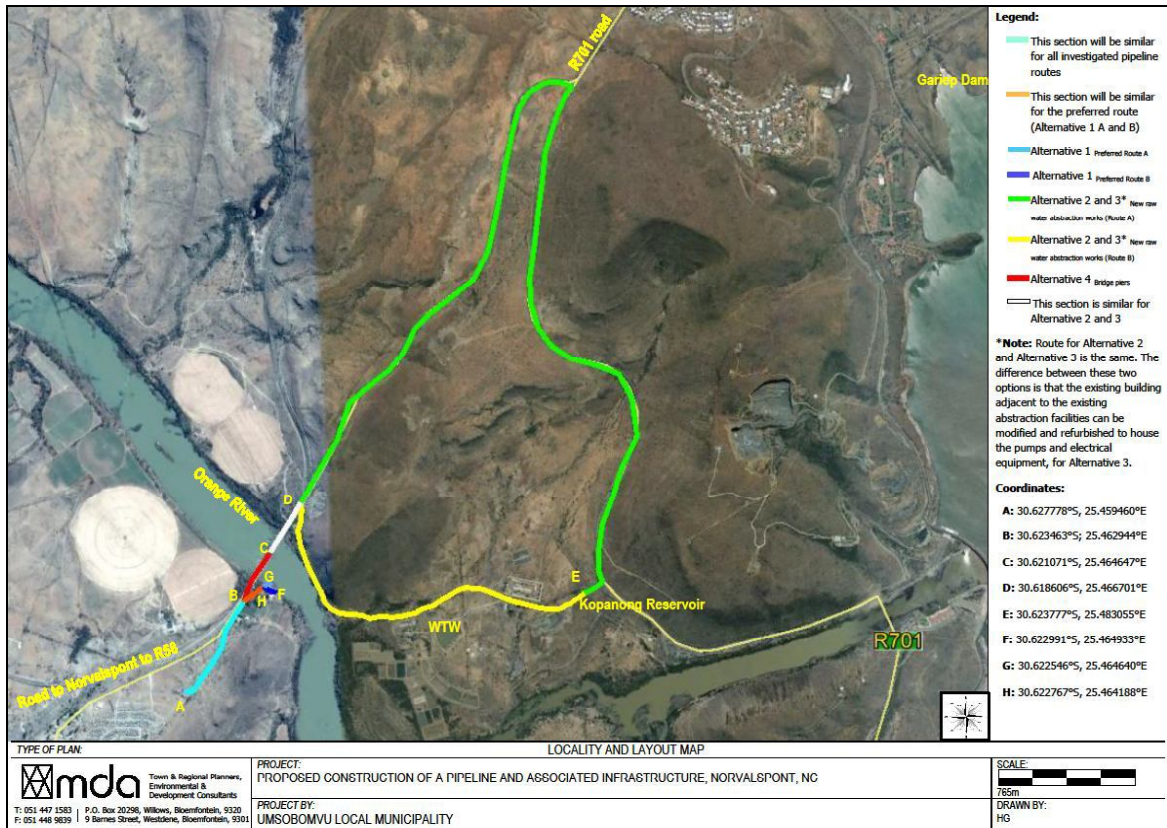
## PROPOSED UPGRADING OF BULK WATER SUPPLY: NORVALSPONT

Please complete this form and return to MDA

<b>Property Name:</b>	
<b>Property Owner:</b> (Individual/MPY/TRUST/CC)	
<b>Name of Contact Person:</b>	
<b>Contact detail of contact person given above:</b>	
	<b>Tel:</b>
	<b>E-mail:</b>
	<b>Fax:</b>
	<b>Physical address (Farm or Street Address):</b>
<b>Comment or any concerns</b>	
<b>Signature and date:</b>	

**MDA Contact Information**  
 Tel: +27 (51) 447 1583  
 Fax: +27 (51) 448 9839  
 e-mail: hanlie@mdagroup.co.za

P O Box 20298  
 Willows  
 9320



Proof of written notification:



Town & Regional Planners,  
Environmental &  
Development Consultants

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BLOEMFONTEIN

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ORGANIZATION	CONTACT PERSON AND CONTACT DETAIL	POSTAL ADDRESS	PROOF OF NOTIFICATION
Ward Councillor, Ward 2 .	Annie Fritz	Private Bag X6 Colesberg 9795	REGISTERED LETTER <small>(with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za</small> RD 980 253 734 ZA CUSTOMER COPY 301028R
Umsobomvu Local Municipality	The Municipal Manager: Mr. Amos China Mpela	Private Bag X6 Colesberg 9795	REGISTERED LETTER <small>(with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za</small> RD 980 253 646 ZA CUSTOMER COPY 301028R
Pixley Ka Seme District Municipality	The Municipal Manager: Mr. Macoollan Jack	Private Bag X1012 De Aar 7000	REGISTERED LETTER <small>(with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za</small> RD 980 253 663 ZA CUSTOMER COPY 301028R
Department Of Water Affairs (Dwa)	WQMA 13 Mr. Pius Lerotholi	P.O. Box 528 Bloemfontein 9300	REGISTERED LETTER <small>(with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za</small> RD 980 253 685 ZA CUSTOMER COPY 301028R
Department Of Agriculture, Forestry And Fisheries	Agriculture, Land Reform And Rural Development Hod: Mr Wonders Dimakatso Viljoen Mothibi	Private Bag X5018 Kimberley 8300	REGISTERED LETTER <small>(with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za</small> RD 980 253 703 ZA CUSTOMER COPY 301028R
Department Of Public Works, Road And Transport	Head Of Department: Transport, Safety And Liaison: Ms Khwezi Jonkers (Acting)	Private Bag X1368 Kimberley 8300	REGISTERED LETTER <small>(with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za</small> RD 980 253 725 ZA CUSTOMER COPY 301028R
Department Of Public Works, Road And Transport	Head Of Department: Roads And Public Works Ms Ruth Palm (Acting)	Po Box 3132 Kimberley 8301	REGISTERED LETTER <small>(with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za</small> RD 980 253 751 ZA CUSTOMER COPY 301028R
Transnet Soc Ltd	Mr Mboniso Sigonyela General Manager: Corporate Communications	P.O. Box 72501 Parkview South Africa 2122	REGISTERED LETTER <small>(with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za</small> RD 980 253 748 ZA CUSTOMER COPY 301028R





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ORGANIZATION	CONTACT PERSON AND CONTACT DETAIL	POSTAL ADDRESS	PROOF OF NOTIFICATION
Dapperfontein Boerdery Pty Ltd (Dapperfontein 79, Portions 28, 40, 41, 42)	Nicholas Van Rensburg	P.O. Box 100 Colesberg 9795	REGISTERED LETTER (with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za RD 980 253 592 ZA CUSTOMER COPY 301028R
(Dapperfontein 79/18)	Johns Rudolph Paul Eugen Christel	P O Box 21 Springfontein 9917	REGISTERED LETTER (with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za RD 980 253 615 ZA CUSTOMER COPY 301028R
Transnet Soc Ltd (Dapperfontein 79, Portion 4, 14)	Mr Mboniso Sigonyela General Manager: Corporate Communications	P.O. Box 72501 Parkview South Africa 2122	REGISTERED LETTER (with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za RD 980 253 632 ZA CUSTOMER COPY 301028R
Umsobomvu Local Municipality (Dapperfontein 79/55)	The Municipal Manager: Mr. Amos China Mpela	Private Bag X6 Colesberg 9795	REGISTERED LETTER (with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za RD 980 253 589 ZA CUSTOMER COPY 301028R
Dapperfontein Cc (Dapperfontein 79/19)	Unknown	P O Box 111 Norvalspont 9797	REGISTERED LETTER (with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za RD 980 253 601 ZA CUSTOMER COPY 301028R
Dapperfontein Cc (Dapperfontein 79/19)	Active Member: Eksteen, Louis Jacobus	3 Fluor Avenue Arconpark Vereeniging 1939	REGISTERED LETTER (with a domestic insurance option) ShareCall 0800 111 502 www.sapo.co.za RD 980 256 381 ZA CUSTOMER COPY 301028R



# *APPENDIX E<sub>3</sub>*

List of registered parties

ORGANIZATION	POSTAL ADDRESS	COMMENTS RECEIVED	RESPONSE TO COMMENTS RECEIVED
<b>AUTHORITIES &amp; STAKEHOLDERS</b>			
Annie Fritz Ward Councillor, Ward 2	Private Bag X6 Colesberg 9795	No comments	Copy of dBAR was forwarded to all registered IAPs
Mr. Amos China Mpela The Municipal Manager: Umsobomvu Local Municipality	Private Bag X6 Colesberg 9795	No comments	Copy of dBAR was forwarded to all registered IAPs
Mr. Macoollan Jack The Municipal Manager: Pixley Ka Seme District Municipality	Private Bag X1012 De Aar 7000	No comments	Copy of dBAR was forwarded to all registered IAPs
<b>Mr. Pius Lerotholi</b> WQMA 13 DWA	P.O. Box 528 Bloemfontein 9300	No comments	Copy of dBAR was forwarded to all registered IAPs
The Provincial Manager South African Heritage Resources <b>Agency</b> Sahra – Northern Cape	P.O. Box 1930 Kimberley 8300	No comments	Copy of dBAR was forwarded to all registered IAPs
Mr Wonders Dimakatso Viljoen Mothibi Agriculture, Land Reform And Rural Development HoD: Department Of Agriculture, Forestry And Fisheries	Private Bag X5018 Kimberley 8300	No comments	Copy of dBAR was forwarded to all registered IAPs
Ms Khwezi Jonkers HoD: Transport, Safety And Liaison: <b>(Acting)</b> Department Of Public Works, Road And Transport	Private Bag X1368 Kimberley 8300	No comments	Copy of dBAR was forwarded to all registered IAPs
Ms Ruth Palm HoD: Roads And Public Works <b>(Acting)</b> Department Of Public Works, Road And Transport	Po Box 3132 Kimberley 8301	No comments	Copy of dBAR was forwarded to all registered IAPs
Mr Mboniso Sigonyela	P.O. Box 72501 Parkview	No comments	Copy of dBAR was forwarded to all registered IAPs

General Manager: Corporate Communications Transnet Soc Ltd	South Africa 2122		
ADJACENT LANDOWNERS AND OTHER NOTIFIED PARTIES			
Louis Jacobus Eksteen Active Member of Dapperfontein CC Owner of the farm Dapperfontein 79/19	3 Fluor Avenue Arconpark Vereeniging 1939	Registered as an IAP. Required additional information: Can you please send me an electronic map indicating the different routes - the ones in the letter does not clearly indicate if it crosses or affects my property, as it is too small Can you please inform me what the expected impact on the current water supply routes inside Norvalspont will be, if any? There is a specific servitude on my property for the routing of water lines and I need to understand what, if any, implications there may be. Can you please indicate the proposed methods in which the piping route will cross the river and the impact of this route on both historical bridges? Do you have any indication on the timeframe that the road leading along the pipeline will be un-useable? See letter attached to Appendix E4.	A copy of the dBAR as well as GoogleEarth Markers indicating the pipeline area was posted to Mr. Eksteen. Proof thereof will be made available in the fBAR. The proposed project only include the bulk water supply to Norvalspont which include the pipeline from the Orange river to the Water Treatment Works (WTW). The internal reticulation does not form part of this project. The proposed / recommended option will not cross the river with no impact to any bridges. The option to supply the water from the Kopanong WTW was investigated but not recommended. The applicant does not foreseen extended traffic interruption as the pipe will be constructed in the road reserve and at least one lane will be in operation most of the time during construction.



# *APPENDIX E<sub>4</sub>*

List of comments received

## Hanlie Groenewald

---

**From:** Louis Eksteen - BizNuss <louis@eksteen.biz>  
**Sent:** 02 April 2014 09:43 PM  
**To:** hanlie@mdagroup.co.za  
**Cc:** info@glasgowponthotel.co.za  
**Subject:** Upgrading of the Norvalspont Bulk Water Supply system

Dear Hanlie

I have received the letter notifying me of the proposed upgrade of the water system in Norvalspont. I definitely want to register as an interested and affected party.

Please find my details below:

Property Name: Dapperfontein Farm 79/19, trading as the Glasgow Pont Hotel Property Owner: Dapperfontein cc

Contact Person: Louis Eksteen - Sole Member Contact Details: Cell: 083 274 3471

Email: [louis@eksteen.biz](mailto:louis@eksteen.biz)

Fax: 086 504 3211

Physical Address & Postal Address: 3 Fluor Drive, Arconpark, Vereeniging, 1939

I do wish to ask the following, to determine if my property will be directly affected:

1. Can you please send me an electronic map indicating the different routes - the ones in the letter does not clearly indicate if it crosses or affects my property, as it is too small.
2. Can you please inform me what the expected impact on the current water supply routes inside Norvalspont will be, if any? There is a specific servitude on my property for the routing of water lines and I need to understand what, if any, implications there may be.
3. Can you please indicate the proposed methods in which the piping route will cross the river and the impact of this route on both historical bridges?
4. Do you have any indication on the timeframe that the road leading along the pipeline will be un-useable?

Do you have an electronic version of all the documentation related to this project available? I will prefer receiving all communication and documentation in electronic format for easy future reference.

Kind Regards

Louis Eksteen

# *APPENDIX E<sub>5</sub>*

Proof of response to comments received

A copy of the dBAR (this document) was forwarded to Mr. Eksteen and all relevant authorities. Proof thereof will be made available as part of the fBAR.



Town & Regional Planners,  
Environmental &  
Development Consultants

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Makecha Development Associates trading as MDA, CC 1995/030752/23, Member: SAPI, SACTRP

Our ref: 40611  
Contact person: Hanlie Groenewald

**Louis Jacobus Eksteen**

Active Member of Dapperfontein CC  
Owner of the farm Dapperfontein 79/19  
3 Fluor Avenue  
Arconpark  
Vereeniging  
1939

**ATTENTION: LOUIS JACOBUS EKSTEEN**

**COPY OF DBAR: PROPOSED UPGRADING OF THE BULK WATER SUPPLY AT NORVALSPONT**

With reference to the above mentioned project, the following:

1. Thank you for registering as an Interested and / or Affected Party for the above mentioned project.
2. Please refer to the following section as a response from the engineers regarding your comments received:
  - 2.1. Can you please send me an electronic map indicating the different routes - the ones in the letter does not clearly indicate if it crosses or affects my property, as it is too small.

*Find attached a map indicating the proposed route. Also refer to .kmz file on the CD. The dBAR also contain a map indicating the alternative routes.*

- 2.2. Can you please inform me what the expected impact on the current water supply routes inside Norvalspont will be, if any? There is a specific servitude on my property for the routing of water lines and I need to understand what, if any, implications there may be.

*This will only be the bulk water supply to Norvalspont which include the pipeline from the Orange River to the Water Treatment Works (WTW). The internal reticulation does not form part of this project.*

- 2.3. Can you please indicate the proposed methods in which the piping route will cross the river and the impact of this route on both historical bridges?

*The proposed / recommended option will not cross the river and will therefore have no impact on the bridges. The option to supply the water from the Kopanong WTW was investigated but not recommended. Should the Environmental Department decide not to approve the proposed project (Alternative 1 Preferred alternative), but to approve an alternative discussed in the dBAR, an in depth study will be undertaken to determine the best methods to attach the pipes to any bridges (if required). Please note that you will be notified of the decision made by the relevant Environmental Department.*

**Managing Members:**

H.F. Prinsloo, Pr. Pln (A/765/1994), B.Sc., M.TR.P. (UFS)  
N. Devenish, Pr. Pln (A/1133/1999), B.A., M.TR.P. (UFS)

**Assisted by:**

A.C. Rohrbeck, Pr. Pln (A/153/2009), B.Soc.Sc., M.TR.P. (UFS)  
M.H. du Plessis, B.Sc. Geology, B.Sc. Hons. Geology (UFS)  
H. Groenewald, B.Sc. Zoology, B.Sc. Hons. Zoology, M.Sc. Zoology (UFS)



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2.4. Do you have any indication on the timeframe that the road leading along the pipeline will be un-useable?

*The applicant does not foresee extended traffic interruption – the pipe will be constructed in the road reserve and one lane will be in operation most of the time during construction.*

3. Find attached hereto a CD containing a copy of the Draft Basic Assessment Report (dBAR).
4. Also note that the CD attached hereto contains a .kmz file that can be used to view the proposed pipeline route on GoogleEarth.
5. Please comment on the dBAR within 40 days of this letter. Comments should be sent to Hanlie Groenewald at [hanlie@mdagroup.co.za](mailto:hanlie@mdagroup.co.za) / as per contact details given above.

Kind regards

**MDA**

**NEIL DEVENISH Pr. Pln A/1133/1999**  
Manager: Town Planning/Environmental

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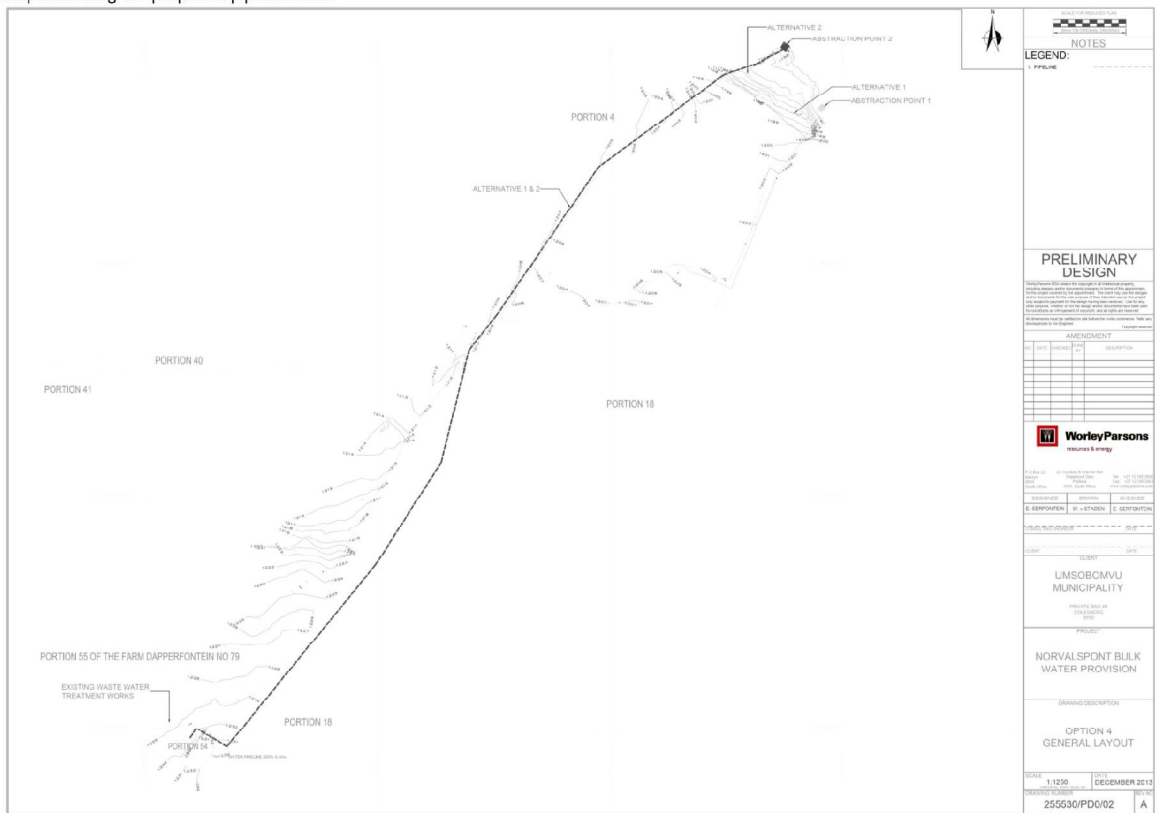
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M.H. du Plessis, B.Sc. Geology, B.Sc. Hons. Geology (UFS)  
H. Groenewald, B.Sc. Zoology, B.Sc. Hons. Zoology, M.Sc. Zoology (UFS)

Map indicating the proposed pipeline route



# ***APPENDIX F***

Environmental Management Programme (EMPr)

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# ENVIRONMENTAL MANAGEMENT PROGRAMME

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## PROPOSED UPGRADING OF THE BULK WATER SUPPLY TO NORVALSPONT, NORTHERN CAPE PROVINCE

**Applicant:** Umsobomvu Municipality  
**MDA Ref No:** 40611  
**Date:** August 2014



Town & Regional Planners,  
Environmental & Development  
Consultants

Physical Address: 9 Barnes Street,  
Westdene, Bloemfontein, 9301  
Postal Address: PO Box 20298,  
Willows, 9320  
Tel: 051 4471583, Fax: 051 4489839  
E-mail: [admin@mdagroup.co.za](mailto:admin@mdagroup.co.za)



## **1. INTRODUCTION**

### **1.1 Project and associated construction activities**

Umsobomvu Local Municipality proposed to upgrade the Norvalspont Water Supply.

The site, as referred to in this Environmental Management Programme (EMPr), pertains to the proposed pipeline route, as indicated on the locality plans in Appendix A of the Basic Assessment Report.

### **1.2 Objectives of the EMPr**

The EMPr aims to fulfil the requirements as specified in Section 33 of Regulations No. R. 543 (18 June 2010) in terms of the National Environmental Management Act (Act 107 of 1998), with the following objectives:

- To identify, predict and evaluate actual and potential impacts on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimizing negative impacts, maximizing benefits and promoting compliance with the principles of environmental management;
- To identify and employ the modes of environmental management best suited to ensuring that the activity is pursued in accordance with best environmental management practices;
- To be able to respond to unforeseen events;
- To provide feedback on compliance.

### **1.3 Implementation of the EMPr**

The project applicant, namely Umsobomvu Local Municipality is responsible for the implementation of the EMPr. All contractors should be supplied with a copy of the EMPr and should ensure that construction staff adheres to the mitigation measures.

## **2. PREPARATION OF THE EMPr**

### **2.1 Person(s) who prepared the EMPr**

- i) Mr Neil Devenish
- ii) Me Hanlie Groenewald

MDA  
P.O. Box 20298  
Willows  
Bloemfontein  
9320  
Tel: 051 4471583  
Fax: 051 4489839

### **2.2 Expertise of the person(s) who prepared the EMPr**

- i) Mr Neil Devenish

Key qualifications:

- Key competencies and experience include development control applications (applications and appeals pertaining to rezoning, consolidations, subdivisions etc.) township establishment applications, environmental management and control applications.

Education:

- B. A. (Sociology, Geography) University of the Free State, SA, 1994
- Master of Town and Regional Planning, University of the Free State, SA, 1996
- Managing the Environmental Impact Assessment Process, Environmental Management Unit, PU for CHE, 2000
- Environmental Management Consulting, South African Institute of Ecologists & Environmental Scientists, 2001
- Water Law of South Africa, The South African Institution of Civil Engineers (SAICE), 2006

ii) Me Hanlie Groenewald

Key qualifications:

- Key competencies and experience include environmental management and research in zoology and environmental management.

Education:

- B.Sc. (Zoology), University of the Free State, South Africa, 2005
- B.Sc. Honors (Zoology), University of the Free State, South Africa, 2006
- M.Sc. (Zoology), University of the Free State, South Africa, 2012

### **3. RECOMMENDED MANAGEMENT AND MITIGATION MEASURES**

#### **3.1 Planning phase / Site preparation**

- i) Permits need to be obtained for the removal and / or transplantation of White Stinkhout (*Celtis africana*) and Wild Olive / Olienhout (*Olea europaea* subsp. *africana*) trees and various aloe species that are located within the pipeline route where no alternatives are possible and will ultimately be destroyed. Care must be taken to prevent unnecessary damage to other protected plants near to construction activities.
- ii) The development should remain outside of delineated wetland boundaries, unless a Water Use License is obtained that authorizes encroachment.
- iii) The necessary precautions with regard to road safety should be implemented for construction work within road crossings.
- iv) Proper sanitation, water and waste facilities should be in place for construction workers.
- v) Washing and chemical toilet facilities must be provided on site during the construction phase. Chemical toilets should be cleaned regularly.
- vi) Clean water should be made available daily to workers on site.
- vii) Fire-fighting equipment should be available on site, where applicable.

- viii) If artefacts or graves are uncovered during construction activities, work in the immediate vicinity is to be stopped until the project Archaeologist has been consulted.

### **3.2 Water resources**

- i) Caution must be taken to ensure building materials are not dumped or stored within waterways and / or their buffer zones of 30m.
- ii) Disturbance to the surface water sources should be minimized by undertaking construction activities in these areas during the dry seasons.
- vii) Emergency plans must be in place in case of spillages into water bodies.
- viii) Erosion control of the banks must take place so as to reduce erosion and sedimentation into the water sources.
- ix) Weather forecasts of up to three days in advance must be monitored on a daily basis to avoid exposing soil or building works or materials during a storm event and appropriate action must be taken in advance to protect construction works should a storm event be forecasted.
- x) The Contractor is responsible to inform all staff of the need to be vigilant against any practice that will have a harmful effect on waterways.
- xi) All no-go areas must be demarcated with red tape under guidance of the Environmental Control Officer (ECO).
- xii) Infilling, excavation, drainage and hardened surfaces should not occur unnecessarily in any of the waterways (i.e. permanent, seasonal or temporary).
- xiii) The design of drainage systems must ensure that no contamination, eutrophication or increased erosion of the waterways is occurring. Drainage systems should be maintained regularly in order to minimize the runoff of harmful chemical substances into the waterways.

- xiv) It should be ensured that the pipeline has minimal effect on the flow of water through the waterways. During construction, disturbance to the waterways should be minimized.

### **3.3 Handling and storage of materials**

- i) All chemicals used during the development, including fuel for the construction vehicles, should be stored in a proper storeroom or protected area to prevent pollution.
- ii) Vehicles should be serviced at designated areas. No oil, diesel or other chemicals may be spilled or discharged anywhere.
- iii) Where applicable, the contractors must ensure that all relevant national, regional and local legislation regarding storage, transport, use and disposal of petroleum, chemical, harmful or hazardous substances and materials are adhered to.
- iv) Cement and concrete mixing, if applicable, should only take place within the construction site. No concrete may be mixed directly on the ground.
- v) All environmental problems occurring on the site such as chemical spillage, wasteful water disposal, etc. should be reported to the ECO.

### **3.4 Waste management**

- i) Waste refers to all construction debris and domestic waste generated due to construction activities.
- ii) The contractor will be responsible for the removal of construction waste.
- iii) Suitable containers should be placed on site to collect all solid waste. These should be emptied regularly.
- iv) No littering is permitted. During the construction period the site shall be maintained in a neat and tidy condition.
- v) All solid waste produced should be disposed of at an authorized landfill site.

- vi) No dumping, burning or burying of waste may take place on site.
- vii) All hazardous waste should be disposed of at an authorized hazardous landfill site.
- viii) Best practices should be implemented during the removal of the existing pipeline (where applicable).
- ix) Asbestos waste (if any) should be managed according to best practices and removed to a registered hazardous material waste site.

### **3.5 Soil, erosion and vegetation management**

- i) Construction activities should be limited to designated construction areas to prevent peripheral impacts on surrounding natural habitats. Construction vehicles should also keep to constructed roads so that natural vegetation is not destroyed unnecessarily.
- ii) All human movement and activities must be contained within designated construction areas in order to prevent peripheral impacts on surrounding natural habitat.
- iii) Erosion management is important. Concurrent rehabilitation of disturbed areas (where possible) will aid in the fast recovery of vegetation.
- iv) Removed topsoil is to be stockpiled in an area where it will not be disturbed by vehicles. One layer of bricks or stones is to be placed around the stockpiled topsoil (where possible) to protect topsoil from washing away during rainstorms. Topsoil is to be placed on the cleared areas once construction is completed. Re-spreading is to be done to a depth of 10 cm, if enough material is available.
- v) An alien control and monitoring programme must be developed starting during the construction phase and to be carried over into the operational phase.
- vi) Any proclaimed weed or alien species that germinates during the contract period must be cleared by hand / approved chemicals before flowering thereof.

- vii) Imported fill material should be monitored during and after construction for the presence of any alien species. Any such species should be removed immediately.
- viii) No fires should be made directly on the soil. Provision should be made that no accidental fires are started.
- ix) No firewood shall be collected on site or in surrounding areas.
- x) Fire fighting equipment must be available on site.
- xi) The total depth of excavation will be kept to a minimum, i.e. follow the slope of the natural ground surface and a minimum cover of 1 m over the section of the pipeline to be placed underground, is proposed.
- xii) Species, especially grasses, trees and shrubs occurring in the region must be used to rehabilitate disturbed areas.
- xiii) Permits should be obtained before the removal of protected plant species.
- xiv) Relocation of protected plant species should be undertaken, where possible.

### **3.6 Noise control**

- i) Construction activities should be limited to normal daytime hours.

### **3.7 Safety and security**

- i) The contractors must comply with the Occupational Health and Safety Act, National Building Regulations and any other national, regional or local regulations with regard to safety on site. Construction contracts must include safety and security measures for staff.
- ii) Precautions to ensure that construction staff and sites are visible and do not pose danger to road users, should be implemented when workings are undertaken within the road reserve.

- iii) Construction work within road reserves should accommodate road users as far as possible. This includes the following:
  - a) Roads should be crossed in half widths at a time to minimise the impact on vehicular traffic.
  - b) Construction along and across existing roads will be executed in such a manner that both pedestrian and vehicular traffic can be accommodated at all times.
  - c) The contractor will be required to maintain adequate access to all public and private property at all times.
  - d) Contractor should supply, erect and maintain road signs for all work areas conforming to the prescribed layout and requirement of the South African Road Traffic Signs Manual and the Department of Transport, Roads and Community Safety of the NC Provincial Government.
  - e) A concrete sleeve pipe should be installed at all the railway line crossings (if any) and the new pipeline should be installed inside the concrete sleeves.
- iv) Fire extinguishers must be available on site and in the construction camp.

### **3.8 Heritage management**

- i) Caution should be taken during the excavations to avoid damage to human graves, if any is to be found.
- ii) In the case of the discovery of any stone tools or human skeletal material, the work should be stopped and reported to the archaeologist or to SAHRA.

### **3.9 Site clean-up and rehabilitation**

- i) Temporary structures and office sites shall be dismantled and removed after completion of the construction phase of the project.
- ii) All waste, equipment, materials, etc. used during construction must be cleared from the site. The contractors must ensure that the site is cleared and rehabilitated to the satisfaction of the ECO.
- iii) An alien plant control and monitoring programme should be implemented.



- iv) Re-vegetation of disturbed areas must be undertaken with site indigenous species.
- v) After completion of the construction phase, a waterway monitoring program must be initiated to ensure that all are adequately rehabilitated.

#### **4. OPERATIONAL PHASE**

- i) Regular inspections of the pipeline route should be done to identify leakages. These should be attended to immediately.
- ii) Soil erosion occurrences should be attended to immediately.
- iii) A waterway monitoring program should be implemented to ensure that all affected waterways are adequately rehabilitated.
- iv) Measures should be implemented to minimise the loss of water at any point of pipeline (including at the pump stations, reservoirs etc.)

#### **5. DECOMMISSIONING /CLOSURE**

- i) It is not anticipated that the proposed project will cease in the nearby future. However, if decommissioning is decided upon, a rehabilitation plan will be developed and submitted for approval. The end-use of the area will be kept in mind during the compilation of the rehabilitation plan.

#### **6. COMPLIANCE AND MONITORING**

- i) The applicant should ensure that the contractors adhere to the recommendations of the EMPr and conditions of the Environmental Authorisation during construction.
- ii) An Environmental Control Officer (ECO) can be appointed separately or can be part of the contractor's team to monitor the construction phase.
- iii) Regular monitoring and / or spot inspections at least every fortnight during the construction phase is recommended.

- iv) It is recommended that an independent monitoring assessment should be undertaken quarterly during construction and once after rehabilitation (or as specified in the RoD) to ensure compliance with the EMPr and RoD.
- v) Inspections should be documented and any shortcomings addressed immediately.

# ***APPENDIX G***

Additional information

# *APPENDIX G<sub>1</sub>*

Location of protected plant species

The contractor responsible for the construction activities will submit an application to the relevant authority for the removal / transplanting of protected plant species. This application will also contain the coordinates of the protected plant species.

# *APPENDIX G<sub>2</sub>*

Consultation with DWA

To be attached to fBAR

# *APPENDIX G<sub>3</sub>*

EAP Declaration



To be attached to fBAR

# *APPENDIX G<sub>4</sub>*

Specialist Declaration

To be attached to fBAR