

Department of Environmental Affairs and Development Planning

Rainer Chambeau

Development Management (Region 1)

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EIA REFERENCE NUMBER: 16/3/3/1/F4/23/3002/21 NEAS REFERENCE NUMBER: WCP/EIA/0000853/2021 ENQUIRIES: Mr. R. Chambeau 17 September 2021

The Municipal Manager Saldanha Bay Municipality Private Bag X12 **VREDENBURG** 7380

For Attention: Mr. H. Mettler Tel: (022) 701 7000

Email: <u>mun@sbm.gov.za</u> / <u>heinrich.mettler@sbm.gov.za</u>

Dear Sir

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): THE PROPOSED UPGRADE OF THE STORMWATER CHANNEL THROUGHWAY ON ERVEN 2751, 5122 AND 7829 AT MUGGIEVLAK IN VREDENBURG.

- 1. With reference to the above application, this Department hereby notifies you of its decision to **grant** Environmental Authorisation, together with the reasons for the decision.
- 2. In terms of Regulation 4 of the Environmental Impact Assessment Regulations, 2014 (as amended), you are instructed to ensure, within 14 days of the date of the decision on the application, that all registered interested and affected parties ("I&APs") are provided with access to the decision and reasons for the decision, and that all registered I&APs are notified of their right to appeal.
- 3. Your attention is drawn to Chapter 2 of the National Appeal Regulations, 2014 (as amended), which prescribes the appeal procedure to be followed. This procedure is summarised hereunder.

Yours faithfully

MR. ZAAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)

Copies to: (1) Mr. N. van Rooyen (Ludgar Consulting (Pty) Ltd)

(2) Ms. N. Duarte (Saldanha Bay Municipality)

Email: natio@ludgar.co.za

Email: nazeema.duarte@sbm.gov.za



Department of Environmental Affairs and Development Planning Rainer Chambeau

Development Management (Region 1)

Rainer.Chambeau@westerncape.gov.za | Tel: 021 483 2729

ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): THE PROPOSED UPGRADE OF THE STORMWATER CHANNEL THROUGHWAY ON ERVEN 2751, 5122 AND 7829 AT MUGGIEVLAK IN VREDENBURG.

With reference to your application for the abovementioned, find below the outcome with respect to this application.

DECISION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in section B below with respect to the Preferred Alternative, described in the Basic Assessment Report ("BAR") dated May 2021.

The applicant for this Environmental Authorisation is required to comply with the conditions set out in section F below.

A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

The Municipal Manager Saldanha Bay Municipality c/o Mr Heinrich Mettler Private Bag X12 VREDENBURG 7380

Tel: (022) 701 7000

Email: heinrich.mettler@sbm.gov.za

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

B. ACTIVITY AUTHORISED

انمامط	Activity	Activity/Project Description
	Activity Notice 1 of the EIA Regulations, 2014, (as	Activity/Project Description
amen	· · · · · · · · · · · · · · · · ·	
Activity Number: 12 Activity Description:		The proposed development entails the upgrade/formalisation of the existing Muggievlak stormwater channel located between Deur Street and the Bok River by means of concrete lining, which will have a physical footprint of 100 square meters or more.
"The development of- (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more;		
where	e such development occurs-	
(a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; -		
excluding-		
(aa)	the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;	
(bb)	where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;	
(cc)	activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;	
(dd)	where such development occurs within an urban area;	
(ee)	where such development occurs within existing roads, road reserve or railway line reserves; or	
(ff)	the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared."	
Listing Notice 1 of the EIA Regulations, 2014, (as amended):		
Activity Number: 19 Activity Description:		The proposed formalisation of the existing Muggievlak stormwater channel will result in the infilling or depositing of material of more than 10 cubic metres from a watercourse (i.e. the

"The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse: Muggievlak stormwater channel and the Bok River).

but excluding where such infilling, depositing, dredging, excavation, removal or moving—

- (a) will occur behind a development setback;
- (b) is for maintenance purposes undertaken in accordance with a maintenance management plan;
- (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;
- (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or
- (e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies."

Listing Notice 1 of the EIA Regulations, 2014, (as amended):

Activity Number: 48
Activity Description:

"The expansion of-

- infrastructure or structures where the physical footprint is expanded by 100 square metres or more; or
- (ii) dams or weirs, where the dam or weir, including infrastructure and water surface area, is expanded by 100 square metres or more;

where such expansion occurs-

- (a) within a watercourse;
- (b) in front of a development setback; or
- (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;

excluding-

- (aa) the expansion of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;
- (bb) where such expansion activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;
- (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing

A portion of the Muggievlak stormwater channel (i.e. upstream of Deur Road) is currently canalised as part of the stormwater system in the area. The proposed upgrade/formalisation of the remainder of the Muggievlak stormwater channel, which is an existing earth channel, will be upgraded by means of concrete lining and will be expanded by 100 square meters or more.

	Notice 3 of 2014, in which case that
	activity applies;
(dd)	where such expansion occurs within an
	urban area; or
(ee)	where such expansion occurs within
	existing roads, road reserves or railway
	line reserves."

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

The holder is herein authorised to undertake the following alternative that includes the listed activities relating to the authorised development.

The authorised development entails the upgrade/formalisation of the existing Muggievlak stormwater channel on Erven 2751, 5122 and 7829, Vredenburg, by means of concrete lining. The formalisation of the existing earth channel will improve the free flow of stormwater and prevent future flooding of the area.

The stormwater channel will be lined with a trapezoidal reinforced concrete and sections of the embankment of the channel will be stoned pitched for erosion protection purposes. The proposed formalisation of the stormwater channel will be approximately 600m in length and approximately 3.2m in width. Approximately 100m upstream and downstream of the convergence of the earth channel with the Bok River will be cleared of overgrown vegetation.

Existing stormwater outlet structures will be reconstructed and the Muggievlak pipe crossing will be replaced with 2 box culverts. The culverts will be approximately 1200x900mm Class S Precast Culverts. The total size of the culvert work area will measure approximately 120.688m² in extent.

The total development footprint will be approximately 2929.2m² in extent.

C. SITE DESCRIPTION AND LOCATION

The authorised listed activities will be undertaken on Erven 2751, 5122 and 7829, Vredenburg.

The 21-digit Surveyor General code for the proposed site is:

Erf 2751, Vredenburg	C04600140000275100000
Erf 5122, Vredenburg	C04600140000512200000
Erf 7829, Vredenburg	C04600140000782900000

Site co-ordinates for the proposed site is:

Start point	32° 54' 21.17" South	17° 58'57.19" East
Middle point	32° 54′ 13.94″ South	17° 58'50.00" East
End Point	32° 54' 05.85" South	17° 58'44.50" East

Site co-ordinates for the vegetation clearance along the Bok River is:

Point	South	East
R1	32° 54' 09.53" South	20° 01'19" East
R2	32° 54' 09.22" South	20° 01'19" East
R3	32° 54' 09.08" South	20° 01'18" East
R4	32° 54' 08.60" South	20° 01'19" East
R5	32° 54' 07.95" South	20° 01'17" East
R6	32° 54' 07.68" South	20° 01'18" East
R7	32° 54' 06.81" South	20° 01'16" East
R8	32° 54' 06.66" South	20° 01'17" East

R9	32° 54' 06.64" South	20° 01'16" East
R10	32° 54' 06.34" South	20° 01'16" East
R11	32° 54' 06.00" South	20° 01'15" East
R12	32° 54' 05.85" South	20° 01'15" East
R13	32° 54' 05.55" South	20° 01'15" East
R14	32° 54' 05.44" South	20° 01'15" East
R15	32° 54' 05.05" South	20° 01'14" East
R16	32° 54' 04.84" South	20° 01'14" East
R17	32° 54' 04.56" South	20° 01′13" East
R18	32° 54' 04.39" South	20° 01′13" East
R19	32° 54' 04.08" South	20° 01'12" East
R20	32° 54′ 03.81″ South	20° 01'13" East
R21	32° 54' 03.46" South	20° 01'12" East
R22	32° 54' 03.22" South	20° 01'12" East
R23	32° 54' 03.18" South	20° 01'11" East
R24	32° 54' 02.93" South	20° 01'11" East

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

The said section of land is hereinafter referred to as "the site".

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Ludgar Consulting (Pty) Ltd. c/o Mr. Natio van Rooyen P.O. Box 6164 UNIEDAL 7600

Cell.: (082) 411 5995 Email: natio@ludgar.co.za

E. CONDITIONS OF AUTHORISATION

Scope of authorisation

- 1. The holder is authorised to undertake the listed activities specified in Section B above in accordance with and restricted to the Preferred Alternative described in the BAR dated May 2021 on the site described in Section C above.
- 2. The holder must commence with the listed activities on the site within a period of **ten (10) years** from the date of issue of this Environmental Authorisation.
- 3. The development/construction activities must be **concluded** within **ten (10) years** from the date of commencement of the listed activities.
- 4. The holder shall be responsible for ensuring 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.
- 5. Any changes to, or deviations from the scope of the alternatives described in section B above must be 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 information in order 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.

Written notice to the Competent Authority

- 6. A minimum of 7 (seven) calendar days' notice, in writing must be given to the Competent Authority before commencement of development activities.
 - 6.1. The notice must make clear reference to the site details and EIA Reference number given above.
 - 6.2. The notice must also include proof of compliance with the following conditions described herein:

Conditions: 7, 8, 11 and 18.

Notification and administration of appeal

- 7. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision-
 - 7.1. Notify all registered Interested and Affected Parties ("I&APs") of
 - 7.1.1. the outcome of the application;
 - 7.1.2. the reasons for the decision as included in Annexure 3:
 - 7.1.3. the date of the decision; and
 - 7.1.4. the date when the decision was issued.
 - 7.2. Draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeal Regulations, 2014 (as amended) detailed in Section G below;
 - 7.3. Draw the attention of all registered I&APs to the manner in which they may access the decision;
 - 7.4. Provide the registered I&APs with:
 - 7.4.1. name of the holder (entity) of this Environmental Authorisation,
 - 7.4.2. name of the responsible person for this Environmental Authorisation,
 - 7.4.3. postal address of the holder,
 - 7.4.4. telephonic and fax details of the holder,
 - 7.4.5. e-mail address, if any, of the holder,
 - 7.4.6. the contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the National Appeal Regulations, 2014 (as amended).
- 8. The listed activities, including site preparation, must not be commenced with within 20 (twenty) calendar days from the date the holder notifies the registered I&APs of this decision. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided, i.e., the listed activities, including site preparation, must not be commenced with until the appeal is decided.

Management of activity

- 9. The Environmental Management Programme ("EMPr") and Maintenance Management Plan ("MMP") compiled by Ludgar Consulting (Pty) Ltd and dated May 2021 submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.
- 10. The EMPr and MMP must be included in all contract documentation for all phases of implementation.

Monitoring

- 11. The holder must appoint a suitably experienced Environmental Control Officer ("ECO") before commencing with development activities to ensure compliance with the provisions of the EMPr and the conditions contained in this Environmental Authorisation.
- 12. A copy of the Environmental Authorisation, EMPr, Environmental Audit Reports and compliance monitoring reports must be kept on the site of the authorised listed activities and must be made available to any authorised person on request.
- 13. Access to the site referred to in Section C above must be granted and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see these for the purpose of assessing and/or monitoring compliance with the conditions contained herein.

Auditing

- 14. In terms of Regulation 34 of the EIA Regulations, 2014 (as amended), the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation and the EMPr and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Reports must be prepared by an independent person and must contain all the information required in Appendix 7 of the EIA Regulations, 2014 (as amended).
 - 14.1. The holder must undertake an environmental audit within 3 (three) months of the commencement of the listed activities and submit an Environmental Audit Report to the Competent Authority upon completion of the environmental audit.
 - 14.2. A second Environmental Audit Report must be submitted to the Competent Authority within 1 (one) month after the completion of the development/construction activities.
 - 14.3. The holder must, within 7 (seven) days of the submission of the Environmental Audit Report to the Competent Authority, notify all potential and registered I&APs of the submission and make the report available to a authorised person on request.

Specific conditions

- 15. Should any heritage remains be exposed during excavations or any other actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape. Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape.
 - 15.1. Heritage remains include: meteorites, archaeological and/or palaeontological remains (including fossil shells and trace fossils); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; stone artifacts and bone remains; structures and other built features with heritage significance; rock art and rock engravings; and/or graves or unmarked human burials including grave goods and/or associated burial material.
- 16. The mitigation measures as described in the Freshwater Report (compiled by Watsan Africa and dated November 2019) and as included in the EMPr and MMP must be implemented.
- 17. No material, substance or vehicles must be stored within 32m of the watercourses at any given time in order to prevent potential pollution impacts.
 - "No-go areas" must be demarcated prior to the commencement of the development phase to prevent any potential pollution impacts occurring outside the development footprint.

- 18. The mitigation measures as described in the Botanical Assessment (compiled by Johlene Krige and dated 22 November 2019 and updated April 2021) and as included in the EMPr and MMP must be implemented.
- 19. Employment opportunities must be afforded to the local community (as far as possible) during all phases of the proposed development.

F. GENERAL MATTERS

- 1. Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.
- 2. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.
- 3. If the holder does not commence with the listed activities within the period specified in Condition 2, this Environmental Authorisation shall lapse for that activity, 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 prior to the expiry date of the Environmental Authorisation.
- 4. An application for amendment of the Environmental Authorisation must be submitted to the Competent Authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for Amendment in terms of Part 1 of the EIA Regulations, 2014 (as amended) must be submitted.
 - Please note that an amendment is not required if there is a change in the contact details of the holder. In this case, the Competent Authority must only be notified of such changes.
- 5. The manner and frequency for updating the EMPr is as follows:
 - Amendments to the EMPr, must be made in accordance with Regulations 35 to 37 of the EIA Regulations, 2014 (as amended) or any relevant legislation that may be applicable at the time.

G. APPEALS

Appeals must comply with the provisions contained in the National Appeal Regulations, 2014 (as amended).

- 1. An appellant must
 - 1.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations, 2014 (as amended) to the Appeal Administrator; and
 - 1.2. Submit a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.
- 2. An appellant (if NOT the holder of the decision) must, within 20 (twenty) calendar days from the date the holder of the decision sent notification of the decision to the registered I&APs-
 - 2.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations, 2014 (as amended) to the Appeal Administrator; and

- 2.2. Submit a copy of the appeal to the holder of the decision, any registered I&AP, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.
- 3. The holder of the decision (if not the appellant), the decision-maker that issued the decision, the registered I&AP and the Organ of State must submit their responding statements, if any, to the appeal authority and the appellant within 20 (twenty) calendar days from the date of receipt of the appeal submission.
- 4. The appeal form/s must be submitted by means of one of the following methods:

By post: Attention: Mr. M. Venter

Western Cape Ministry of Local Government, Environmental Affairs and

Development Planning Private Bag X9186

CAPE TOWN

8000

By facsimile: (021) 483 4174; or

By hand: Attention: Mr. M. Venter (Tel: 021 483 3721)

Room 809

8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

5. The prescribed appeal form, as well as assistance regarding the appeal processes is obtainable from the office of the appeal authority/ at: Tel. (021) 483 3721, E-mail DEADP.Appeals@westerncape.gov.za or URL http://www.westerncape.gov.za/eadp.

H. DISCLAIMER

The Western Cape Government, the holder, committees or any other public authority or organisation appointed in terms of the conditions of this Environmental Authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is greatly appreciated.

Yours faithfully

MR. ZAAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)

DATE OF DECISION: 17 September 2021

Copies to: (1) Mr. N. van Rooyen (Ludgar Consulting (Pty) Ltd)

(2) Ms. N. Duarte (Saldanha Bay Municipality)

E-mail: <u>natio@ludgar.co.za</u>

E-mail: <u>nazeema.duarte@sbm.gov.za</u>

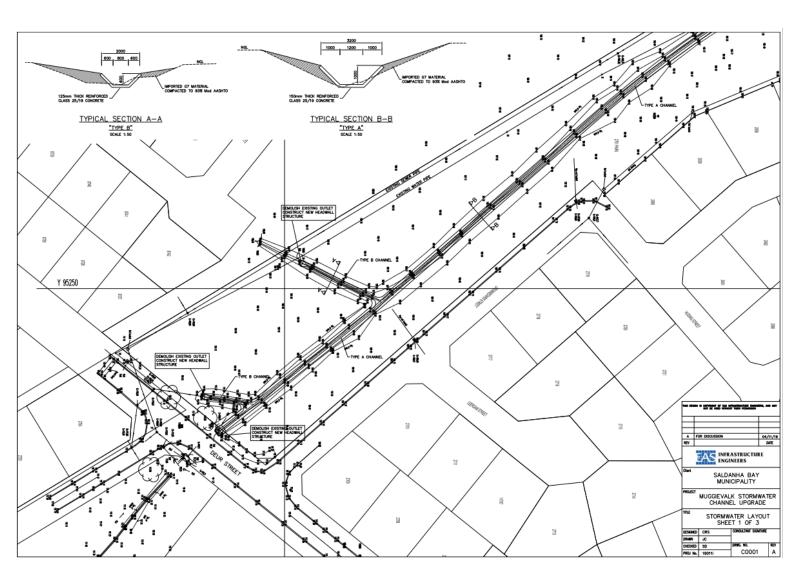
ANNEXURE 1: LOCALITY MAP

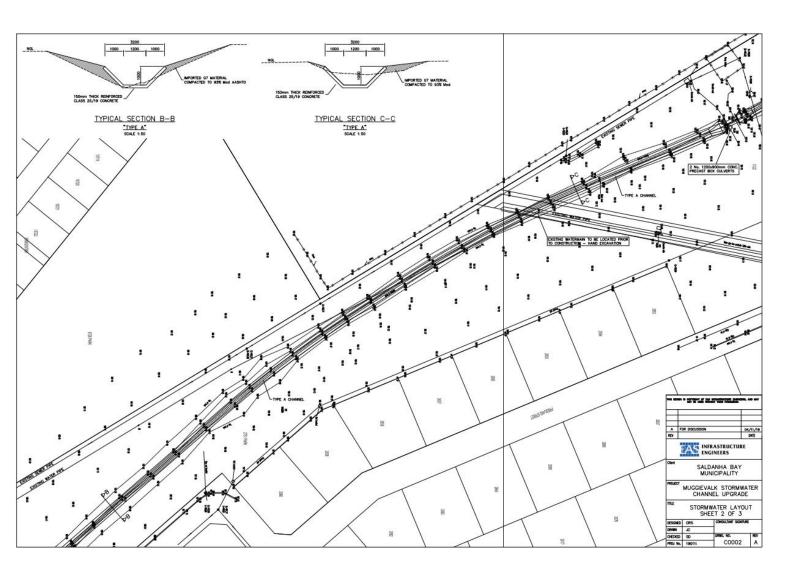
The proposed site (existing stormwater channel) is located on Erven 2751, 5122 and 7829, Vredenburg.

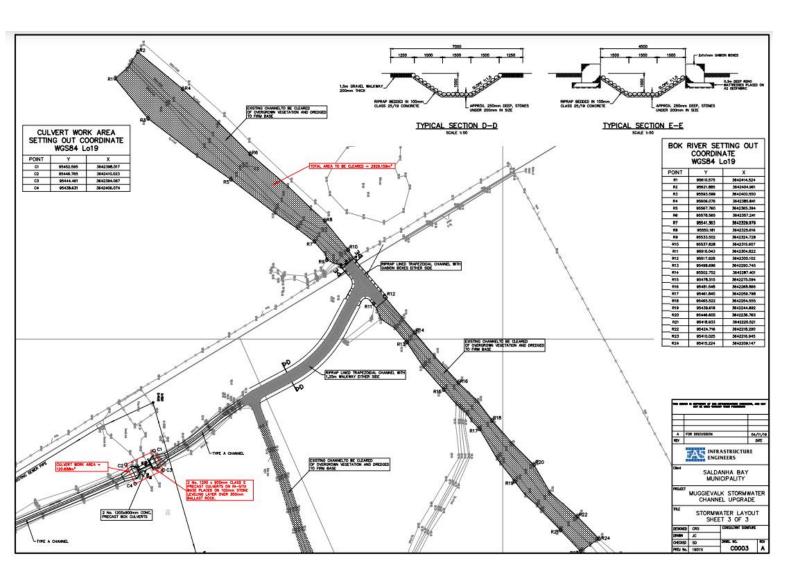


ANNEXURE 2: SITE PLANS

Site plans for the proposed formalisation of the stormwater channel and culvert crossing.







ANNEXURE 3: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, inter alia, the following:

- a) The information contained in the application form dated 07 January 2021 and received by the competent authority on 08 January 2021, the BAR and EMPr dated May 2021 and received by the competent authority on 02 June 2021;
- b) Relevant information contained in the Departmental information base, including, the Guidelines on Public Participation, Alternatives and Exemptions (dated March 2013);
- c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the NEMA:
- d) The comments received from I&APs and responses to these, included in the BAR dated May 2021;
- e) The balancing of negative and positive impacts and proposed mitigation measures; and
- f) No site visits were conducted. The competent authority had sufficient information before it to make an informed decision without conducting a site visit.

All information presented to the competent authority was taken into account in the consideration of the application for environmental authorisation. A summary of the issues which, according to the competent authority, were the most significant reasons for the decision, is set out below.

1. Public Participation

The public participation process ("PPP") was undertaken in accordance with an approved Public Participation Plan (dated 08 September 2020) and entailed the following:

- Identification of and engagement with Interested and Affected Parties ("I&APs");
- Fixing a notice board on the site where the listed activities is to be undertaken on 04 February 2021;
- Giving written notice to the owners and occupiers of land adjacent to the site where the listed activities are to be undertaken, the municipality and ward councilor, and the various organs of state having jurisdiction in respect of any aspect of the listed activities on 04 February 2021;
- The placing of a newspaper advertisement in the "Weslander" on 04 February 2021;
- Making the draft BAR available to I&APs for comment from 04 February 2021 to 05 March 2021;
- The draft BAR was made available electronically (via a Google Drive link).

A second round of PPP was undertaken and entailed the following:

- The landowner, registered I&APs and relevant statutory bodies were given notification of the 30 days review and comment period on the Revised Draft BAR and EMPr via electronic mail correspondence from 23 April 2021 to 23 May 2021; and
- The revised draft BAR was made available electronically (via a Google Drive link).

All of the concerns raised by I&APs were responded to and adequately addressed during the public participation process. This Department is satisfied that the PPP that was followed met the minimum legal requirements and all the comments and responses report thereto were included in the comments and responses report. Specific management and mitigation measures have been considered in this Environmental Authorisation and in the EMPr to adequately address the concerns raised.

2. Alternatives

Due to the nature of the proposed development, the preferred alternative and the "no-go" alternative were identified and assessed.

The Preferred Alternative – herewith authorised

The authorised development entails the upgrade/formalisation of the existing Muggievlak stormwater channel on Erven 2751, 5122 and 7829, Vredenburg, by means of concrete lining. The formalisation of the existing earth channel will improve the free flow of stormwater and prevent future flooding of the area.

The stormwater channel will be lined with a trapezoidal reinforced concrete and sections of the embankment of the channel will be stoned pitched for erosion protection purposes. The proposed formalisation of the stormwater channel will be approximately 600m in length and approximately 3.2m in width. Approximately 100m upstream and downstream of the convergence of the earth channel with the Bok River will be cleared of overgrown vegetation.

Existing stormwater outlet structures will be reconstructed and the Muggievlak pipe crossing will be replaced with 2 box culverts. The culverts will be approximately 1200x900mm Class S Precast Culverts. The total size of the culvert work area will measure approximately 120.688m² in extent.

The total development footprint will be approximately 2929.2m² in extent.

The Preferred Alternative is deemed as preferred given that the formalisation of the existing stormwater channel will alleviate future flooding in the surrounding residential area and in particularly at the Muggivlak sewage pump station, which during flood events can cause subsequent contamination of the Bok River. The proposed formalisation is supported from a freshwater, botanical, biodiversity and heritage perspective subject to the implementation of mitigation measures included in the EMPr.

"No-Go" Alternative

The "no-go" alternative entails maintaining the "status quo". The "no-go" alternative was not deemed to be a reasonable or feasible alternative given that residence and infrastructure will likely experience flooding during high rainfall events, resulting in property and infrastructure damage. Since the proposed development will not result in unwarranted impact, the "no-go" alternative is not warranted.

3. Impact Assessment and Mitigation measures

3.1. Activity Need and Desirability

The formalisation of the existing earth channel by means of concrete lining is required to improve the free flow of stormwater and prevent future flooding of the area. Improvements will also assist in maintenance operations though ease of access and providing a hard standing for plant/equipment.

The Need and Desirability of the proposed upgrade/formalisation of the existing earth channel has been contextualised, in the relevant planning frameworks, such as the Integrated Development Plan, the Environmental Management Framework and the Spatial Development Framework for the Saldanha Bay and the surrounding areas.

These spatial planning documents identify the connection between urban space-economy and local economic development and the maintenance and improvement of existing infrastructure. Development of infrastructure, as needed, is important to ensure that planning objectives outlined in the relevant planning frameworks, are met.

The proposed development may also provide a limited number of employment opportunities.

3.2. Botanical Impacts

According to the Screening Report (generated from the Screening Tool developed by the National Department of Environmental Affairs and dated 08 January 2021) the proposed site

was mapped to be located in a very high sensitivity area from a terrestrial biodiversity perspective.

A Botanical Assessment (compiled by Johlene Krige and dated 22 November 2019 and updated April 2021) was therefore compiled in accordance with the Protocols (Government Gazette No. 43110 of 20 March 2020). The specialist indicated that the vegetation within the surveyed area consists entirely of the azonal vegetation unit Cape Inland Salt Pans vegetation, which is classified as least threatened. No plant species of conservation concern were recorded within the surveyed area by the specialist.

The specialist indicated that the upper portion of the proposed site (i.e. toward Deur Street) is completely transformed / degraded. The specialist indicated that significant patches of intact natural Cape Inland Salt Pans vegetation were evident in the lower portion of the study area (areas east of the stormwater channel, downstream of the Muggievlak pump station and areas adjacent to the Bok River). Natural vegetation within this area is of high biodiversity significance as it is associated with a wetland area. The specialist recommended that the natural patches of Cape Inland Salt Pans vegetation be maintained as far as possible.

The specialist indicated that there is no evidence of the terrestrial ecosystem Saldanha Granite Strandveld vegetation (which is classified as an endangered ecosystem) within the immediate vicinity of the Bok River and stormwater earth channel. The development will therefore not impact on this ecosystem. In general, the vegetation is sparse and natural plant diversity is very low within intact natural areas.

The specialist indicated that the potential impacts on indigenous vegetation are anticipated to be of low significance post implementation of the recommended mitigation measures. The specialists' recommendations have been included as a condition in this Environmental Authorisation and is included in the EMPr.

3.3. Terrestrial animal impacts

According to the Screening Report (generated from the Screening Tool developed by the National Department of Environmental Affairs and dated 08 January 2021) the proposed site was mapped to be located in a very high sensitivity area from a terrestrial animal species perspective.

A Biodiversity Report (compiled by Dr Dirk van Driel of Watsan Africa dated February 2020) was therefore compiled in accordance with the Protocols (Government Gazette No. 43855 of 30 October 2020) to determine the potential impacts on animals. The specialist concluded that all of the animals encountered in and around the Muggievlak and animals that could potentially occur in the area are rated as of Least Concern, with the exception of six species. These are the secretary bird (Near Threatened), blue cranes (Near Threatened), the lanner falcon (Near Threatened), dwarf chameleon (Near Threatened) and the white-tailed rat (Vulnerable) as well as the Cape sand rain frog (Near Threatened). None of these species occur in the combination of Vulnerable or Critically Threatened along with a High or Definite rating for probability of occurrence.

Due to the low probability of the presence of the species identified by the specialist, the specialist concluded that the potential impacts associated with the proposed development will be of low negative significance with and without mitigation measures. No environmental constraints were identified by the specialist and no mitigation measures were provided. The proposed development is therefore acceptable from an animal species perspective.

3.4. Freshwater impacts

According to the Screening Report (generated from the Screening Tool developed by the National Department of Environmental Affairs and dated 08 January 2021) the proposed site was mapped to be located in a very high sensitivity area from an aquatic biodiversity perspective.

An Aquatic Biodiversity Assessment (compiled by Dr Dirk van Driel of Watsan Africa dated November 2019) was therefore conducted to assess the potential freshwater impacts associated with the proposed development.

The Muggievlak Stream (a tributary of the Bok River) rises on the streets of Vredenburg towards its confluence with the Bok River on the verge of town. From there is flows through agricultural land over a distance of 19 km, measured along the flow of the stream, into Saldanha Bay on the Atlantic sea board. This portion/convergence of Bok River that will be impacted upon is classified as a natural wetland in terms of the National Freshwater Environment Priority Area, is mapped as a terrestrial and aquatic Critical Biodiversity Area and terrestrial and aquatic Ecological Support Area.

The Muggievlak Stream starts abruptly from a culvert at Kerk Street. From Kerk Street to Deur Street, the stream has been canalised as part of the stormwater system in the area. As it flows downstream, it receives a storm water pipe from every street. The little ecological functioning that is still left between Kerk Street and Deur Street and from the top of the Bok River to downstream of the confluence, where the storm water canal is to be constructed, would be lost for the most part. Beyond the canalised section of the Muggievlak stream, the stream is an earth channel, which leads to the Bok River. The instream and riparian habitat of the earth channel is classified as E, which represents an extensively modified with loss of habitat, biota and ecosystem function, by the specialist. The Bok River has been severely altered over its entire length, by urbanization and agriculture. The natural flow has been altered, with higher peak flows and shorter flow pulses. A short length of storm water canal is not about to add much to the flow pattern.

Due to the disturbed nature of the earth channel, there are no significant negative impacts identified from an aquatic ecological perspective provided that the mitigation measures are effectively implemented. The specialists' recommendations have been included in the EMPr and MMP.

The requirements of the National Water Act, 1998 (Act No. 36 of 1998) will be met. An application for a General Authorisation in terms of the National Water Act, 1998 (Act No. 36 of 1998) has been submitted to the Department of Water and Sanitation for consideration. In addition, the Department of Water and Sanitation have indicated (in their correspondence dated 24 May 2021) that they have no objection to the proposed upgrade/formalisation.

3.5. Heritage

A Notice of Intent to Development was submitted to Heritage Western Cape. Heritage Western Cape indicated (in their correspondence dated 29 November 2019) that a Heritage Impact Assessment ("HIA") was required with specific reference to the potential impacts on archaeological heritage resources.

A HIA (compiled by ACRM and dated January 2020) was conducted to assess the sensitivity of archaeological resources in the study area, to determine the potential impacts on such resources, and to avoid and/or minimise such impacts by means of management and/or mitigation measures.

A field assessment of the Muggievlak stormwater channel and surrounding area took place on 28 January 2020, in which no archaeological resources were recorded during the study. The storm water channel and surrounding area and floodplain of the Bok River was severely degraded and modified.

The study identified no impacts to heritage resources that will need to be mitigated prior to proposed development activities commencing. The receiving environment is not a sensitive archaeological landscape.

A final comment from Heritage Western Cape ("HWC") dated 21 May 2021 endorsed the HIA dated January 2020, and therefore, no further action under Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) is required.

3.6. Dust, Noise and Visual Impacts

No significant dust, noise and visual impacts are anticipated. Potential dust, noise and visual impacts associated with the proposed development will be mitigated by the implementation of the mitigation measures included in the EMPr.

3.7. Soil and groundwater impacts

Potential soil and groundwater impacts may occur during the development phase. In addition, this Department's Directorate: Pollution and Chemicals Management indicated (in their correspondence dated 11 May 2021) that the frequency and location of where water quality monitoring will be undertaken and the type of infill material that will be used to backfill any erosion channels developed during the construction period or during the vegetation establishment period must be provided. To address these concerns and potential soil and groundwater impacts associated with the proposed development, the EAP has included mitigation measures to be implemented which are included in the EMPr.

The potential soil and groundwater impacts are anticipated to be of low to very low negative significance post mitigation.

The development will result in both negative and positive impacts.

Negative Impacts include:

- Potential visual, dust and noise impacts during the construction phase;
- The loss of some indigenous vegetation;
- Potential soil and groundwater contamination during the construction phase; and
- Potential disturbance to the aquatic habit during the construction phase.

Positive impacts include:

- The proposed upgrade will provide some employment opportunities during the construction phase;
- The proposed upgrade will allow for a more efficient and improved stormwater drainage system;
- Reduced flood risk during heavy rainfall events to neighbouring residential properties.

4. National Environmental Management Act Principles

The National Environmental Management Principles (set out in section 2 of the NEMA, which apply to the actions of all organs of state, serve as guidelines by reference to which any organ of state must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), inter alia, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts
 of activities (disadvantages and benefits), and for decisions to be appropriate in the
 light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures; and

• the selection of the best practicable environmental option.

5. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMPr, the Competent Authority is satisfied that the proposed listed activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

You are reminded of your general duty of care towards the environment in terms of Section 28(1) of the NEMA which states: "Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment."

