DRAFT BASIC ASSESSMENT REPORT

for

GREAT BRAK FILLING STATION

on

Erf 4788, Great Brak River

In terms of the

National Environmental Management Act (Act No. 107 of 1998, as amended) & 2014 Environmental Impact Regulations (as amended)

Prepared for Applicant: **Micaren Exel Petroleum Wholesales (Pty) Ltd.**

Date: ***10 April 2019***

Author of Report: Siân Holder
Author Email: sian@cape-eaprac.co.za

Report Reference: **MOS479/05**
Department Reference: **16/3/3/1/D6/17/0003/19**
Case Officer: **Shireen Pullen**

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APPOINTED ENVIRONMENTAL ASSESSMENT PRACTITIONER:

Cape EAPrac Environmental Assessment Practitioners

PO Box 2070

George

6530

Tel: 044-874 0365

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*Report written & compiled by: **Siân Holder** (MEd Environmental Education, BTech & Nat.Diploma Nature Conservation), who has 10 years' experience as an environmental practitioner.*

*Registrations: Director, **Louise-Mari van Zyl** (MA Geography & Environmental Science [US]; Registered Environmental Assessment Practitioner with the Interim Certification Board for Environmental Assessment Practitioners of South Africa, EAPSA). Ms van Zyl has over fifteen years' experience as an environmental practitioner.*

PURPOSE OF THIS REPORT:

Stakeholder Review & Comment

APPLICANT:

Micaren Exel Petroleum Wholesales (Pty) Ltd.

CAPE EAPRAC REFERENCE NO:

MOS479/05

DEPARTMENT REFERENCE:

16/3/3/1/D6/17/0003/19

SUBMISSION DATE

10 April 2019

DRAFT BASIC ASSESSMENT REPORT

in terms of the
National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended & Environmental Impact Regulations 2014 (as amended)

Great Brak Filling Station

ERF 4788 (previously Portion 4 of Farm 135 Klipfontein (Erf 135))
Great Brak River, Western Cape

Submitted for:

Stakeholder Review & Comment

Report Issued by:
Cape Environmental Assessment Practitioners

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PO Box 2070
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Appendix 1 of the 2014 EIA Regulations (as amended) contains the required contents of a Basic Assessment Report. The checklist below serves as a summary of how these requirements were incorporated into this Basic Assessment Report.

Requirement	***Details***
(a) Details of - *(i) The EAP who prepared the report; and* *(ii) The expertise of the EAP, including, curriculum vitae.* *(iii) Applicant Details*	**Siân Holder** of Cape EAPrac MEd Environmental Education, BTech & Nat.Diploma Nature Conservation, who has 10 years' experience as an environmental practitioner. **Micaren Exel Petroleum Wholesales (Pty) Ltd**
(b) The location of the activity, including – *(i) The 21 digit Surveyor General code of each cadastral land parcel;* *(ii) Where available, the physical address and farm name;* *(iii) Where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties.*	SECTION A: Section 1, pg 11
(c) a plan which locates the proposed activity or activities applied for as well as the associated structures and infrastructure at an appropriate scale, or, if it is *(i) A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or* *(ii) On land where the property has not been defined, the coordinates within which the activity is to be undertaken.*	Appendix B SECTION A: Section 5, Pg 18
(d) a description of the scope of the proposed activity, including - *(i) All listed and specified activities triggered and being applied for; and* *(ii) A description of the activities to be undertaken including associated structures and infrastructure.*	SECTION A, Pg 11-23
(e) A description of the policy and legislative context within which the development is proposed, including – *(i) An identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to this activity and have been considered in the preparation of the report; and*	SECTION B, Section 6, Pg 45 - 52

Requirement	*Details*
(ii) How the proposed activity complies with and responds to the legislation and policy context, plans, guidelines, tools frameworks and instruments.	
(f) A motivation for the need and desirability for the proposed development, including the need and desirability of the activity in the context of the preferred location.	SECTION D, Pg 58
(g) A motivation for the preferred site, activity and technology alternative.	SECTION E, Pg 71 - 78
(h) A full description of the process followed to reach the proposed preferred alternative within the site, including -	
(i) Details of all alternatives considered;	SECTION E, Pg 71 – 78
(ii) Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;	SECTION C, Pg 52 - 58 Appendix F
(iii) A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;	SECTION C, Pg 52 - 58 Appendix F
(iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	SECTION G, Section 2, Pg 90
(v) The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts:	SECTION G, Section 2, Pg 90 - 92
(aa) can be reversed;	
(bb) may cause irreplaceable loss of resources; and	SECTION G, Section 1, Pg 87
(cc) can be avoided, managed or mitigated.	
(vi) The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;	SECTION G, Section 2, Pg 90 - 92 SECTION G, Section 3 & 5, Pg 92 – 110
(vii) Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	SECTION G, Section 2, Pg 90 - 92 SECTION G, Section 3 & 5, Pg 92 – 110
(viii) The possible mitigation measures that could be applied and level of residual risk;	SECTION E, Section 1, Pg 71

Requirement	***Details***
(ix) The outcome of the site selection matrix; *(x) If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and* *(xi) A concluding statement indicating the preferred alternatives, including preferred location of the activity.*	SECTION G, Section 4, Pg 100
(i) A full description of the process undertaken to identify, assess and rank the impacts the activity will impose on the preferred location through the life of the activity, including – *(ii) A description of all environmental issues and risks that were identified during the environmental impact assessment process; and* *(iii) An assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures.*	SECTION G, Section 1 & 2, Pg 87 - 92
(j) An assessment of each identified potentially significant impact and risk, including - *(i) Cumulative impacts;* *(ii) The nature, significance and consequences of the impact and risk;* *(iii) The extent and duration of the impact and risk;* *(iv) The probability of the impact and risk occurring;* *(v) The degree to which the impact and risk can be reversed;* *(vi) The degree to which the impact and risk may cause irreplaceable loss of resources; and* *(vii) The degree to which the impact and risk can be mitigated.*	SECTION G, Section 2, Pg 87 – 92 Appendix J
(k) Where applicable, a summary of the findings and impact management measures identified in any specialist report complying with Appendix 6 to these Regulations and an indication as to how these findings and recommendations have been included in the final assessment report.	SECTION G, Sections 3, 4 & 5, Pg 92 - 110
(l) An environmental impact statement which contains: *(i) A summary of the key findings of the environmental impact assessment;* *(ii) A map at an appropriate scale which superimposes the proposed activity and its*	SECTION G, Section 4, Pg 100

Requirement	***Details***
associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers; and *(iii) A summary of the positive and negative impacts and risks of the proposed activity and identified alternatives.*	
(m) Based on the assessment, and where applicable, impact management measures from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr.	SECTION G, Section 5, 102 - 110
(n) Any aspects which were conditional to the findings of the assessment either by the EAP or specialist which are to be included as conditions of authorisation.	SECTION H, Pg 111
(o) A description of assumptions, uncertainties and gaps in knowledge which relate to the assessment and mitigation measures proposed.	SECTION G, Section 1, Pg 87
(p) A reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation.	SECTION H
(q) Where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required, the date on which the activity will be concluded and the post construction monitoring requirements finalised.	SECTION H
(r) An undertaking under oath or affirmation by the EAP in relation to: *(i) The correctness of the information provided in the reports;* *(ii) The inclusion of comments and inputs rom stakeholders and I&APs;* *(iii) The inclusion of inputs and recommendations from the specialist reports where relevant; and* *(iv) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties.*	SECTION J, Section 2
(s) Where applicable, details of any financial provisions for the rehabilitation, closure and ongoing post decommissioning management of negative environmental impacts.	SECTION G, Section 5, Pg 102

Requirement	***Details***
(t) Any specific information that may be required by the competent authority.	*Pending*
(u) Any other matters required in terms of section 24(4)(a) and (b) of the Act.	*Pending*

ABBREVIATIONS

AIA	*Archaeological Impact Assessment*
BGIS	*Biodiversity Geographic Information System*
BID	*Background Information Document*
CBD	*Central Business District*
ACMP	*Archaeological Conservation Management Plan*
CDSM	*Chief Directorate Surveys and Mapping*
CEMP	*Construction Environmental Management Plan*
dBA	*Decibel (measurement of sound)*
DEA	*Department of Environmental Affairs*
DEA&DP	*Department of Environmental Affairs and Development Planning*
DEIR	*Draft Environmental Impact Report*
DME	*Department of Minerals and Energy*
DSR	*Draft Scoping Report*
FEIR	*Final Environmental Impact Report*
EAP	*Environmental Impact Practitioner*
EHS	*Environmental, Health & Safety*
EIA	*Environmental Impact Assessment*
EIR	*Environmental Impact Report*
EMP	*Environmental Management Programme*
GPS	*Global Positioning System*
GWh	*Giga Watt hour*
HIA	*Heritage Impact Assessment*
HWC	*Heritage Western Cape*
I&APs	*Interested and Affected Parties*
IDP	*Integrated Development Plan*
IFC	*International Finance Corporation*
IPP	*Independent Power Producer*
KNP	*Karoo National Park*
KOP	*Key Observation Point*
kV	*Kilo Volt*
$L_{Aeq,T}$	*Time interval to which an equivalent continuous A-weighted sound level*
LLRC	*Low Level River Crossing*
LUDS	*Land Use Decision Support*
LUPO	*Land Use Planning Ordinance*
MW	*Mega Watt*
NEMA	*National Environmental Management Act*
NEMAA	*National Environmental Management Amendment Act*
NEMBA	*National Environmental Management: Biodiversity Act*
NERSA	*National Energy Regulator of South Africa*
NHRA	*National Heritage Resources Act*
NID	*Notice of Intent to Develop*
NSBA	*National Spatial Biodiversity Assessment*
NWA	*National Water Act*
PIA	*Paleontological Impact Assessment*
PM	*Post Meridiem; “Afternoon”*

SACAA	*South African Civil Aviation Authority*
SAHRA	*South African National Heritage Resources Agency*
SANBI	*South Africa National Biodiversity Institute*
SANS	*South Africa National Standards*
SDF	*Spatial Development Framework*
SMME	*Small, Medium and Micro Enterprise*
SAPD	*South Africa Police Department*
TIA	*Traffic Impact Assessment*
VIA	*Visual Impact Assessment*

BASIC ASSESSMENT REPORT

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

October 2017

1. PROJECT TITLE

Great Brak Filling Station

February 2019

REPORT TYPE CATEGORY	*REPORT REFERENCE NUMBER*	*DATE OF REPORT*
Pre-Application Basic Assessment Report (if applicable)[1]	*Background Information Document (BID): MOS479/02*	*June 2017*
Draft Basic Assessment Report[2]	*MOS479/05*	*10 April 2019*
Final Basic Assessment Report[3] *or, if applicable Revised Basic Assessment Report*[4] *(strikethrough what is not applicable)*		

Notes:

1. *In terms of Regulation 40(3) potential or registered interested and affected parties, including the Competent Authority, may be provided with an opportunity to comment on the Basic Assessment Report prior to submission of the application but must again be provided an opportunity to comment on such reports once an application has been submitted to the Competent Authority. The Basic Assessment Report released for comment prior to submission of the application is referred to as the "Pre-Application Basic Assessment Report". The Basic Assessment Report made available for comment after submission of the application is referred to as the "Draft Basic Assessment Report". The Basic Assessment Report together with all the comments received on the report which is submitted to the Competent Authority for decision-making is referred to as the "Final Basic Assessment Report".*

2. *In terms of Regulation 19(1)(b) if significant changes have been made or significant new information has been added to the Draft Basic Assessment Report , which changes or information was not contained in the Draft Basic Assessment Report consulted on during the initial public participation process, then a Final Basic Assessment Report will not be submitted, but rather a "Revised Basic Assessment Report", which must be subjected to another public participation process of at least 30 days, must be submitted to the Competent Authority together with all the comments received.*

2. DEPARTMENTAL REFERENCE NUMBER(S)

Pre-application reference number:	**16/3/3/6/7/1/D6/17/0104/17**
File reference number (EIA):	**16/3/3/1/D6/17/0003/19**
NEAS reference number (EIA):	
File reference number (Waste):	*None*
NEAS reference number (Waste):	*----*
File reference number (Air Quality):	*None*
NEAS reference number (Air Quality):	*----*
File reference number (Other):	*None*
NEAS reference number (Other):	*----*

3. CONTENT AND GENERAL REQUIREMENTS

Note that:

1. *The content of the Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), any subsequent Circulars, and guidelines must be taken into account when completing this Basic Assessment Report Form.*
2. *This Basic Assessment Report is the standard report format which, in terms of Regulation 16(3) of the EIA Regulations, 2014 (as amended) must be used in all instances when preparing a Basic Assessment Report for Basic Assessment applications for an environmental authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA")and the EIA Regulations, 2014 (as amended) and/or a waste management licence in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) ("NEM:WA"), and/or an atmospheric emission licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA") when the Western Cape Government: Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority/Licensing Authority.*
3. *This report form is current as of October 2017. It is the responsibility of the Applicant/ Environmental Assessment Practitioner ("EAP") to ascertain whether subsequent versions of the report form have been released by the Department. Visit the Department's website at* ***http://www.westerncape.gov.za/eadp*** *to check for the latest version of this checklist.*
4. *The required information must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The tables may be expanded where necessary.*
5. *The use of "not applicable" in the report must be done with circumspection. All applicable sections of this report form must be completed. Where "not applicable" is used, this may result in the refusal of the application.*
6. *While the different sections of the report form only provide space for provision of information related to one alternative, if more than one feasible and reasonable alternative is considered, the relevant section must be copied and completed for each alternative.*
7. *Unless protected by law, all information contained in, and attached to this report, will become public information on receipt by the competent authority. If information is not submitted with this report due to such information being protected by law, the applicant and/or EAP must declare such non-disclosure and provide the reasons for believing that the information is protected.*
8. *Unless otherwise indicated by the Department, one hard copy and one electronic copy of this report must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.*
9. *This Report must be submitted to the Department and the contact details for doing so are provided below.*
10. *Where this Department is also identified as the Licencing Authority to decide applications under NEM:WA or NEM:AQA, the submission of the Report must also be made as follows, for-*
    - *Waste management licence applications, this report must also (i.e., another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (tel: 021-483-2756 and fax: 021-483-4425) at the same postal address as the Cape Town Office.*
    - *Atmospheric emissions licence applications, this report must also be (i.e., another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (tel: 021 483 2798 and fax: 021 483 3254) at the same postal address as the Cape Town Office.*

3.1 DEPARTMENTAL DETAILS

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

3.2 TABLE OF CONTENTS

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3.3 ACRONYMS USED IN THIS BASIC ASSESSMENT REPORT AND APPENDICES:

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

3.4 DETAILS OF THE APPLICANT

Applicant / Organisation / Organ of State:	**Micaren Exel Petroleum Wholesales (Pty) Ltd**		
Contact person:	Mr. Jaap de Bruyn		
Postal address:	P.O. Box 784		
Telephone:	Vryburg	*Postal Code:*	8600
Cellular:	082 371 6672	*Fax:*	(053) 927 4199
E-mail:	jaapmicaren@mtnloaded.co.za		

3.5 DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

Name of the EAP organisation:	**Cape Environmental Assessment Practitioners (*Cape EAPrac*)**		
Person who compiled this Report:	Mrs Siân Holder		
EAP Reg. No.:	Director certified as an Environmental Assessment Practitioners with the Interim Certification Board for Environmental Assessment Practitioners of South Africa (EAPSA).		
Contact Person (if not author):	Mrs Siân Holder / Ms Louise-Mari van Zyl (Director)		
Postal address:	P.O. Box 2070, George		
Telephone:	(044) 874 0365	*Postal Code:*	6530
Cellular:	072 228 6711 (Siân) / 071 603 4132 (Louise-Mari)	*Fax:*	(044) 874 0432
E-mail:	sian@cape-eaprac.co.za / louise@cape-eaprac.co.za		
EAP Qualifications:	MEd Environmental Education, BTech & National Diploma Nature Conservation / MA Geography and Environmental Science (Director)		

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

Mrs Siân Holder has 10 years' experience as an EAP.

See after EAP Declaration page for CV.

4. EXECUTIVE SUMMARY OF THE BASIC ASSESSMENT REPORT:

4.1 INTRODUCTION

Cape Environmental Assessment Practitioners (Pty) Ltd. (*Cape EAPrac*) was appointed by the Applicant, **Micaren Exel Petroleum Wholesales (Pty) Ltd.**, to facilitate the legally required Basic Assessment process in terms of the National Environmental Management Act (NEMA, Act 107 of 1998, as amended) and Environmental Management Regulations (2014, as amended), for a proposed **Great Brak Filling Station**, on the municipal property Erf 4788 Great Brak River (*previously* Portion 4 of Farm 135 Klipfontein), Mossel Bay, Western Cape.

This environmental process has run in parallel with a planning application, water use application and various municipal resolution processes (to inform lease agreements), which involved consideration and revision of a development proposal to make use of as much of the transformed / disturbed platform of the municipal property as possible, while avoiding / mitigating flood risk, avoiding and rehabilitating remnant aquatic features and Dune Thicket vegetation, managing stormwater, preventing pollution and contamination of surface and groundwater resources. The revised Filling Station development proposal includes community / public amenities, in the form of a Craft & Skills Development Centre and Recreational Park, which were identified as needs within the Great Brak context.

4.2 LEGISLATIVE AND POLICY FRAMEWORK

The development of the Mossel Bay Retirement & Frail Care Facility on Portion A of Erf 13100, as well as the associated stormwater infrastructure across another portion of the open space property (RE/2001), triggers listed activities in terms of the National Environmental Management Act (**NEMA**, Act 107 of 1998, as amended) and the need for Environmental Authorisation, as it will require the following:

- The development and related operation of facilities or infrastructure, for the storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 80, but less than 500 cubic metres - Storage and handling of fuel within 100m of Great Brak River Estuary and within the Estuary Functional Zone (EFZ). Underground fuel tanks = 184m³
- the infilling & depositing of more the 5 cubic metres of any material to or from the land within 100m of the highwater mark of the Great Brak Estuary;
- Clearance of more than 300m² of vegetation to allow for the upgrade of stormwater management infrastructure and installation of recreational park infrastructure (restaurant deck, amphitheatre, boardwalk, playground, fenceline etc.), within a listed Endangered ecosystem, CBA and within the estuarine functional zone of the Great Brak Estuary.

Other legislative requirement include:

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	***ADMINISTERING AUTHORITY and how it is relevant to this application***	***TYPE Permit/license/authorisation/comment / relevant consideration*** *(e.g. rezoning or consent use, building plan approval, Water Use License and/or General Authorisation, License in terms of the SAHRA and CARA, coastal discharge permit, etc.)*	***DATE*** *(if already obtained)**:***
National Environmental Management Act (Act 107 of 1998, as amended)	DEA&DP	**Environmental Authorisation**	*Pending*
National Environmental Management: Biodiversity Act (Act 10 of 2004)	DEA&DP	Environmental Authorisation & Removal of invasive vegetation	*Pending*
Section 38 of National Heritage Resources Act (Act 25 of 1999)	Heritage Western Cape (HWC)	**Heritage Approval / Record of Decision**	*Received 07 Sept.2018*
Section 21c, i & e of the National Water Act (Act	Breede Gouritz Catchment	**General Authorisation** for rehabilitation of degraded wetland & stormwater	*Parallel to DEA&DP*

36 of 1998)	Management Agency (BGCMA)	channel & use of treated effluent of irrigation.	*decision-making*
National Forest Act (Act 84 of 1998)	Department of Agriculture, Forestry & Fisheries (DAFF)	**Forestry Licence** for possible trimming or removal of protected trees	*To be submitted should EA be issued*
Section 15(2) (a) of the Mossel Bay Municipality: Land Use Planning By-Law, 2015	Mossel Bay Municipality	**Re-Zoning & Land Use Planning Approvals**	*Awaiting EA*
Section 15(2) (f) of the Mossel Bay Municipality: Land Use Planning By-Law, 2015	Mossel Bay Municipality	Removal of condition of Title Deed Restriction	*Awaiting EA*
Western Cape Provincial Spatial Development Framework (PSDF)(2014)	DEA&DP	Environmental Authorisation & Land Use Planning Approval	*Pending*
Mossel Bay Municipal Spatial Development Framework (2017)	Mossel Bay Municipality	Land Use Planning Approval	*Pending post EA*
Draft Heritage Policy for Mossel Bay (2001)	Mossel Bay Municipality & Heritage Western Cape	Land Use Planning Approval & HWC Record of Decision	*Pending Received*
Mossel Bay Integrated Development Plan (2017 – 2022)	Mossel Bay Municipality	Land Use Planning Approval	*Pending post EA*
Mossel Bay Integrated Development Plan (2017 – 2022)	Mossel Bay Municipality	**Approval** from Municipality for service infrastructure connections &/ wayleaves.	*Part of EIA & post EA.*
Provincial Roads Ordinance	Department of Transport & Public Works (Provincial Roads Dept.)	**Approval** from Provincial Roads Department for upgrade to Long Street at access – dedicated left & right turning lanes.	*Part of EIA & post EA.*
Municipal By-laws	Mossel Bay Municipality	**Approval** from Municipality for upgrade to Long Street at access – dedicated left & right turning lanes.	*Part of EIA & post EA.*
National Roads Act (Act 7 of 1998)	SANRAL	**Approval** from SANRAL for: Any structures within the 30m building line from N2 off-ramp; upgrade to Long Street at & positioning of advertising signs / pylons.	*Part of EIA & post EA.*
Petroleum Products Amendment Act, 2003 (Act No 58, 2003)	Department of Minerals & Energy	**Fuel Retails Licence**	*Part of EIA & post EA.*
Municipal regulations	Mossel Bay Municipality	**Building Plan Approval**	*Part of EIA & post EA.*

4.3 ACTIVITY

The Proponent has entered into two long-term lease agreements with the Mossel Bay Municipality (landowner) for the purpose of developing a Filling Station, a recreational park and facilities to support community-based tourism. The Great Brak Filling Station development proposal includes, but not limited to, the following:

- **A Filling Station:**
  - Four (4) x 46 cubic metre underground fuel tanks;
  - A Forecourt with 4-filling points for light vehicles;
  - One (1) truck filling / fuel delivery point;
  - A Convenience store, with associated offices and ablutions;
  - Advertising pylon / sign to be located at existing entrance off Long Street.
- **A Restaurant** – within the Filling Station building, with outdoor seating extending behind the building into

the recreational park.

- **An Outdoor Picnic & Recreational Park** – to be located behind the Filling Station building and behind police station erf. This 'recreational park' will include:
  - family picnic area;
  - children & pet play areas (large jungle-gym & lawn areas);
  - artistic features;
  - natural wetland feature (rehabilitated degraded wetland);
  - raised wooden walkways (so not to impact on tree root systems or wetland area);
  - amphitheatre – creating a platform for local performing artists & as an outdoor education classroom; and
  - raised berm & vegetation screen (adjacent to western boundary) – to reduce potential noise & visual impacts on neighbouring residential erven.
- **Craft & Skills Development Centre** - workshop, display and retail space to show-case local community-based craft & skills development projects – to be positioned on the northern portion (front) of the property adjacent to Long Street.
- **Service Infrastructure:**
  - Asphalt upgrade (widening) of Long Street to include dedicated left & right slip/turn lanes, as well as grass-block stormwater channels.
  - Paved access & egress to and from Long Street (via existing entrance on north-western corner of property);
  - Paved parking for Filling Station and Community Craft Centre, as well as sufficient turning / mobility space for light vehicles and trucks;
  - Associated internal service infrastructure to be connected to existing municipal service networks (portable water & electricity).
  - Onsite Wastewater Treatment Plant (Bio-Mite) to treat sewage and waste water generated by the facility;
  - Greywater storage tank (100kl underground) for treated effluent & rainwater &/municipal water for firefighting and irrigation use;
  - Rainwater storage tank (25m³ underground) for flushing urinals & toilets and irrigation use;
  - Grass-block stormwater channels to direct surface run-off to degraded wetland (to be rehabilitated) and existing municipal stormwater systems along Long Street & within Erf 451 (to be upgraded);

Remnant indigenous vegetation to be retained as far as possible, while additional indigenous trees and landscaping to be planted to serve as visual and noise screens.

4.4 SITE DESCRIPTION AND ATTRIBUTES

The property is approx. 2.2ha in size, however only ±1.4ha is flat enough to be developable. The southern portion of the property is characterised as a steep densely vegetated slope (above the 4.5m contour line), and thus excluded for the target 'development site'. The majority of the northern portion of this site has been completely transformed by historical use of the area as a road- / building-material stockpile site, parking & maintenance area for large vehicles (construction plant, municipal sewerage & refuse trucks and busses), as well as an informal dumping zone. The *preferred* development layout is to be restricted to this transformed platform as far as possible.

The 100m from the highwater mark of the Great Brak Estuary / River extends over approx. half of this disturbed area, and roughly correlates with the alignment of the 1:100 floodline of the Estuary. The Estuarine Functional Zone (EFZ) of the Great Brak Estuary extends across the entire development site up to the 5m contour line.

The vegetation mapped for the development site is 'Groot Brak Dune Strandveld', which has an ecosystem status of 'Endangered'. Remnant vegetation is restricted to the entrance, periphery and southern portion of the 'development site' and consists of scattered trees and tree-clumps (indigenous & alien) indicative of Dune Thicket, with disturbed grassy patches. A degraded wetland is located within the grassed southern portion of the site, at the base of vegetated slope.

The 'development site' falls within an area mapped to include a combination of Aquatic Critical Biodiversity Area (CBA) and River/Wetland Ecological Support Area (ESA2 - Restore).

4.5 PLANNING CONTEXT

An application has been submitted to the Mossel Bay Municipality to re-zone the property from '**Authority / Utility Zone**' to '**Business Zone V**' to allow for the proposed fuelling station.

On a local level the proposed development can be regarded as urban integration and infill based on the mixture of land uses in close proximity to the surrounding area. The proposed development will contribute to the fuel service, convenience, and community needs. It is located within the urban edge of Great Brak River with the Mossel Bay Municipality and facilitates brownfield development which promotes densification and intensification of the Great Brak area. The proposed development is surrounded with a range of recreational, retail and social facilities, and business associated uses all within walking distance. It can therefore be regarded that the proposal is consistent with the policies and objectives as prescribed in the PSDF.

4.6 PROCESS TO DATE

The following serves as a summary of events informing this environmental process to date:

CHRONOLOGY OF EVENTS			
DATE	**PURPOSE**	**ENTITY**	**ACTIONS**
January 2017	Authority Consultation: Pre-Application Meeting	Francois Naude of DEA&DP and Zama Mbunquka of BGCMA	Discuss initial proposal & requirement for a site specific floodline determination.
5 May 2017	Authority Consultation: Pre-Application Site Meeting	• DEA&DP: Francois Naude • BGCMA: Thembela Bushula • CapeNature: Colin Fordham • Mossel Bay Mun.: Jaco Roux • DelPlan Planners: Delarey Viljoen	Discuss the likely considerations and requirements for the environmental application process
15 June 2017	Public Participation: Notification to adjacent landowners, potential I&APs/Stakeholder and State Departments / Organs of State	Adjacent landowners, potential I&APs & Stakeholders	Call for registration of I&APs & notification of availability of Background Information Document (BID) for review & comment / registration period of 30-days, extending from 16 June to 18 July 2017.
16 June 2017	Pre-Application Public Participation: Newspaper Advert	Potential I&APs & Stakeholders	Call for registration of I&APs & notification of availability of Background Information Document (BID) for review & comment / registration period of 30-days, extending from 16 June to 18 July 2017.
23 June 2017	Pre-Application Public Participation Placement of Site Notices on site	Potential I&APs & Stakeholders	Description of development proposed, environmental application process & call for registration of I&APs
Oct.2017	Constraints & Opportunities of property & development compiled based on specialist studies & initial PPP.	EAP Micaren Exel Petroleum Wholesales (Pty) Ltd.	Development proposal expanded to consider potential / opportunities of entire property: Rehabilitation, development of Recreational Park & Community Craft & Skills Development Centre.
Nov.2017	Received confirmation letter	Western Cape Land Restitution Commission Office	Land claim rescinded.
Feb.2018	Authority Consultation: Presentation / Meeting with Municipality	Douw Steyn & Jaco Roux of Mossel Bay Municipality	Discuss outcome of initial public / stakeholder engagement, and specialist study findings / recommendations - pertain to the management and maintenance of the

			entire property and not just the 4000m² area initially leased by Micaren Exel from the Municipality. Discuss 'Constraints & Opportunities' of property and its development and option to extend lease to whole property.
April & August 2018	Update / revision of Specialist Assessments / Reports	Specialists & technical consultants	Assessment of expanded / revised development proposal i.e. inclusion of Restaurant, Recreational Park & Community Craft & Skills Development Centre & associated adjustments in development footprint positions.
Jan.2019	Second Lease Agreement signed with landowner	Applicant & Mossel Bay Municipality	Second lease agreement allows developer to make use of and manage remainder of property for the expanded proposal & rehabilitation.
25 Feb. 2019	Received Socio-Economic Impact Assessment	Urban Econ.	Inform EIA
4 March 2019	Applicant submitted to DEA&DP	EAP	Formal BA process initiated
13 March 2019	Public Participation: Placing Site Notices on site	Potential I&APs & Stakeholders	Description of development proposed, environmental application process & call for registration of I&APs
20 March 2019	Received final Civil Engineering Report	Nextec Industrial Technololgies (Pty) Ltd.	Inform EIA
12 April 2019	Public Participation: Newspaper Advert	Potential I&APs & Stakeholders	Call for registration of I&APs & notification of availability of Basic Assessment Report (DBAR) for review & comment / registration period of 30-days.

4.7 CONCLUSION

The impact/s identified for the proposed development of the Great Brak Filling Station, with associated infrastructure, on Erf 4788 Great Brak River, are deemed to be Negligible-to-Low Negative and Medium Positive. The restoration and rehabilitation proposed as part of this development will significantly improve the status, sense-of-place, attractiveness and functionality of the ecosystem on this property.

Given that the development is to take place on a degraded site within an urban context, adjacent to major road networks, it is recommended that the project be authorised with conditions.

SECTION A: PROJECT INFORMATION

1. ACTIVITY LOCATION

Location of all proposed sites:	Directly west of the N2 highway, on Long Street (MR348), Great Brak River. *Refer to Appendix A for Location & Topographical Plans*.
Farm / Erf name(s) and number(s) (including Portions thereof) for each proposed site:	**Erf 4788 Great Brak River** (*Previously* Portion 4 of Farm 135 Klipfontein (Erf 135))
Property size(s) in m² for each proposed site:	Approx. 22 157.4m² / 2.2ha
Development footprint size(s) in m²:	***±15 258.5m²***
Surveyor General (SG) 21 digit code for each proposed site:	C05100030000478800000 (previously C05100000000013500004)

2. PROJECT DESCRIPTION

(a) Is the project a new development? If "NO", explain:

YES	~~*NO*~~

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

The Proponent has entered into two long-term lease agreements with the Mossel Bay Municipality (landowner) for the purpose of developing a Filling Station, a recreational park and facilities to support community-based tourism. The Great Brak Filling Station development proposal includes, but not limited to, the following:

- **A Filling Station:**
  - Four (4) x 46 cubic metre underground fuel tanks;
  - A Forecourt with 4-filling points for light vehicles;
  - One (1) truck filling / fuel delivery point;
  - A Convenience store, with associated offices and ablutions;
  - Advertising pylon / sign to be located at existing entrance off Long Street.
- **A Restaurant** – within the Filling Station building, with outdoor seating extending behind the building into the recreational park.
- **An Outdoor Picnic & Recreational Park** – to be located behind the Filling Station building and behind police station erf. This 'recreational park' will include:
  - family picnic area;
  - children & pet play areas (large jungle-gym & lawn areas);
  - artistic features;
  - natural wetland feature (rehabilitated degraded wetland);
  - raised wooden walkways (so not to impact on tree root systems or wetland area);
  - amphitheatre – creating a platform for local performing artists & as an outdoor education classroom; and
  - raised berm & vegetation screen (adjacent to western boundary) – to reduce potential noise & visual impacts on neighbouring residential erven.
- **Craft & Skills Development Centre** - workshop, display and retail space to show-case local community-based craft & skills development projects – to be positioned on the northern portion (front) of the property adjacent to Long Street.
- **Service Infrastructure:**

- Asphalt upgrade (widening) of Long Street to include dedicated left & right slip/turn lanes, as well as grass-block stormwater channels.
- Paved access & egress to and from Long Street (via existing entrance on north-western corner of property);
- Paved parking for Filling Station and Community Craft Centre, as well as sufficient turning / mobility space for light vehicles and trucks;
- Associated internal service infrastructure to be connected to existing municipal service networks (portable water & electricity).
- Onsite Wastewater Treatment Plant (Bio-Mite) to treat sewage and waste water generated by the facility;
- Greywater storage tank (100kl underground) for treated effluent & rainwater &/municipal water for firefighting and irrigation use;
- Rainwater storage tank (25m³ underground) for flushing urinals & toilets and irrigation use;
- Grass-block stormwater channels to direct surface run-off to degraded wetland (to be rehabilitated) and existing municipal stormwater systems along Long Street & within Erf 451 (to be upgraded);

Remnant indigenous vegetation to be retained as far as possible, while additional indigenous trees and landscaping to be planted to serve as visual and noise screens.

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

(c) Please indicate the following periods that are recommended for inclusion in the environmental authorisation:

(i)	*the period within which commencement must occur,*	*5 years*
(ii)	*the period for which the environmental authorisation should be granted and the date by which the activity must have been concluded, where the environmental authorisation does not include operational aspects;*	*Not applicable as EA includes operational aspects*
(iii)	*the period that should be granted for the non-operational aspects of the environmental authorisation; and*	*7 years*
(iv)	*the period that should be granted for the operational aspects of the environmental authorisation.*	*30 years* *After 30 years underground fuel storage tanks general require refurbishment or re-placement.*

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

(d) List all the listed activities triggered and being applied for.

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

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

Listed Activity No(s):	*Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 1 (GN No. R. 327)*	*Describe the portion of the development that relates to the applicable listed activity as per the project description.*	*Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational.*
14	The **development and related operation** of facilities or infrastructure, for the storage, or for the **storage and handling, of a dangerous good**, where such	The storage of fuel in four (4) x 46 cubic (184 cubic metres) underground tanks	*Development & Operation*

	storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.		
19A (ii)	The infilling or depositing of **any material of more than 5 cubic metres** into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from - (ii) the littoral active zone, an estuary or **a distance of 100 metres inland of the highwater mark of** the sea or **an estuary**, whichever distance is the greater.	• The development of left & right turning / slip lanes within Long Street to provide safe access & egress at property entrance; • Raising of development footprint/s positioned below the 1:100 year floodlines of the Great Brak Estuary to above the 1:100 floodline with infill material (G4 gravel) i.e. to a level approx. 15cm above the current ground level (±4m contour / above mean-sea level). • Excavation and moving of material required for the installation of the underground fuel, rainwater, blackwater & greywater tanks; stormwater infrastructure & construction of the buildings and associated infrastructure, within 100m of the Great Brak Estuary.	*Development*
Listed Activity No(s):	*Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 3 (GN No. R. 324)*	*Describe the portion of the development that relates to the applicable listed activity as per the project description.*	*Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational.*
10	The **development and related operation of facilities or infrastructure** for the storage, or **storage and handling of a dangerous good**, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80m³. (ii) All areas outside urban areas. (aa) Areas seawards of the development setback line or **within 200 metres from the highwater mark of the sea** is no development setback line is determined; (bb) Areas on the watercourse side of the development setback line or **within 100 metres from the edge of a watercourse** where no setback line has been determined; (cc) Areas estuary	Storage and handling of fuel within 100m of Great Brak River Estuary and within the Estuary Functional Zone (EFZ). Underground fuel tanks = 184m³	*Development & Operation*

	side of the development setback line or **in an estuarine functional zone** where no such development setback line has been determined.		
12	**Clearance of 300m² or more of indigenous vegetation**, except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. (i) Within any Critically Endangered or **Endangered ecosystem listed in terms of section 52 of NEM:BA**… (ii) Within **Critical Biodiversity Areas** identified in bioregional plans; (iii) Within the littoral active zone or **100m of the high water mark of** the sea or **an estuarine functional zone**, whichever distance in the greater, excluding where such removal will occur behind the development setback line on erven in urban areas.	Clearance of more than 300m² of vegetation to allow for the upgrade of stormwater management infrastructure and installation of recreational park infrastructure (restaurant deck, amphitheatre, boardwalk, playground, fenceline etc.), within a listed Endangered ecosystem, CBA and within the estuarine functional zone of the Great Brak Estuary.	*Development*

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

Category A Listed Activity No(s):	*Describe the relevant Category A waste management activity in writing as per GN No. 921*	*Describe the portion of the development that relates to the applicable listed activity as per the project description*
None	----	----

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

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

Listed Activity No(s):	*Describe the relevant atmospheric emission activity in writing as per GN No. 893*	*Describe the portion of the development that relates to the applicable listed activity as per the project description.*
None	---	----

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

Buildings *Provide brief description below:*	***YES***	~~*NO*~~

- **Filling Station main building**, incl. **Restaurant outdoor seating** behind building (south) & **forecourt** area (with 4 x pump islands) in front of building (north);
- **Truck Re-fuelling point** (1 x pump island) / Fuel delivery area, to east of main building/forecourt, to include small roof & vapour vents (associated with underground fuel tanks);
- Filling Station **advertising pylon** on north-western corner of property, at entrance off Long Street;
- 4 x **Community Craft & Skill Development Centre buildings**, on north-eastern portion of property;
- **Biomite WWTW structure/s**, against eastern property boundary;
- **Children's Playground** jungle-gym structure within Recreational Park behind Police Station erf;

- **Amphitheatre platform** & artistic feature, behind filling station main building;
- **Raised boardwalk** network in Recreational Park.

Figure 1: Architectural visualisation of indicating main components of Development Layout.

Figure 2: Architectural visualisation of Restaurant outdoor seating behind Filling Station main building.
Figure 3: Visualisation west at small Amphitheatre & artistic feature behind Filling Station main building.

Figure 4: Children's playground within Recreational Park behind Filling Station.
Figure 5: Visualisation south-east across Recreational Park & rehabilitated wetland feature.

Infrastructure (e.g., roads, power and water supply/ storage) *Provide brief description below:*	***YES***	~~*NO*~~

- **Upgrade to Long Street at entrance to property** to allow for dedicated left & right turning lanes i.e. to allow for 20m stacking distance, road will be widened by ±3.5m (for approx.60m in length) on either side of entrance, with width tapering down on either side. Max. length of upgrade on either side ±170m (left turning lane likely to be shorter).

- **Access** off Longstreet to remain in current position, maintaining 'right-of-way' servitude to SAPS property. Access, internal egress and parking areas (around filling station & Craft & Skills Development Centre) to be paving.
- **Stormwater –** upgrade to existing stormwater channels along Long Street, within Erf 451 and below southern slope to be open grass-block stormwater channels. Stormwater channel behind development (base of slope) to be directed to degraded wetland, as part of rehabilitation and stormwater management efforts.
- Four (4) x 46 cubic metre **underground fuel tanks**, within sealed concrete container;
- **4 x sampling wells** around sealed fuel tank container & **1 x monitoring borehole** near northern boundary;
- **Water** reticulation - Water will be obtained from 3 sources: the municipal trunk main adjacent to the site, a rainwater harvesting system & treated wastewater / sewage for secondary uses.
- **Onsite Wastewater Treatment Package Plant** (Bio-Mite) to treat sewage and waste water generated by the facility, to be located adjacent to eastern boundary;
- **Underground Greywater conservancy** storage tank (100kl underground) for treated effluent & rainwater &/municipal water for firefighting and irrigation purposes;
- **Underground Rainwater storage** tank/s (25kl underground) irrigation, flushing urinals & toilets etc. purposes;
- **Irrigation & fire-fighting** reticulation system;
- **Electricity** – connection to existing municipal network & erection of 50kW grid-connected solar PV system on Forecourt roof.
- **Palisade fenceline** around property boundary.

Processing activities (e.g., manufacturing, storage, distribution) *Provide brief description below:*	***YES***	~~*NO*~~
Community members to manufacture, display and sell arts & crafts from Craft & Skills Development Centre. This merchandise will also be sold from the main Filling Station shop, and distributed for sale from all Micaren Exel filling stations nationwide.		
Storage facilities for raw materials and products (e.g., volume and substances to be stored) *Provide brief description below:*	*YES*	*NO*
• 4 x 46 000lt (46 cubic metres) underground fuel storage tanks; • Biomite Waste Water Treatment Package Plant (anaerobic septic tank, aerobic tank & disinfection chamber): 21 + 25 + 100 = 146 Kℓ (m³) • 100kl / m³ underground Greywater / treated effluent tank; • 25kl / m³ underground Rainwater storage tank/s.		
Storage and treatment facilities for effluent, wastewater or sewage: *Provide brief description below:*	***YES***	~~*NO*~~
• Biomite Waste Water Treatment Package Plant (anaerobic septic tank, aerobic tank & disinfection chamber): 21 + 25 + 100 = 146 Kℓ (m³) • 100kl / m³ underground Greywater / treated effluent tank.		
Storage and treatment of solid waste *Provide brief description below:*	***YES***	~~*NO*~~
General waste temporary storage yard, on eastern side of main building, for collection by Municipal refuse trunk.		
Facilities associated with the release of emissions or pollution. *Provide brief description below:*	***YES***	~~*NO*~~
Vapour vents at fuel storage facility to capture fuel fumes.		
Other activities (e.g., water abstraction activities, crop planting activities) – *Provide brief description below:*	***YES***	~~*NO*~~
Groundwater monitoring – 4 sampling wells around underground fuel tanks, and one monitoring borehole to be established between the filling station and northern property boundary.		

3. PHYSICAL SIZE OF THE PROPOSED DEVELOPMENT

(a) Property size(s): Indicate the size of all the properties (cadastral units) on which the development proposal is to be undertaken	22 157.4m²	
(b) Size of the facility: Indicate the size of the facility where the development proposal is to be undertaken	Development site on Erf 4788 = ±14 247m² (northern level-half of property, below vegetated southern slope).	
(c) Development footprint: Indicate the area that will be physically altered as a result of undertaking any development proposal (i.e., the physical size of the development together with all its associated structures and infrastructure)	Main development components: • Filling Station Main Building • Forecourt • Truck filling / delivery point • Access / Paving / parking areas • Craft & Skills Develop. Centre • Children playground • Amphitheatre • Raised boardwalk • Service infrastructure • Advertising Pylon • Upgrade to Long Street (off-site)	 *±614m²* *±207m²* *±75m²* *±5416m²* *±213m²* *±74m²* *±118m²* *±408m²* *±485m²* *± 6m²* *± 1043.5m²*
(d) Size of the activity: Indicate the physical size (footprint) of the development proposal	*Approx. all above structures / infrastructure:*	***±15 258.5m²***
(e) For linear development proposals: Indicate the length (L) and width (W) of the development proposal. Upgrade to Long Street at entrance	*(L)*	*±170m*
	(W)	*±3.5m*
(f) For storage facilities: Indicate the volume of the storage facility	*Fuel storage tanks* *Biomite Package Plant* *Greywater conservancy tank* *Rainwater storage tank/s*	*184m³* *146m³* *100m³* *25m³*
(g) For sewage/effluent treatment facilities: Indicate the volume of the facility *(Note: the maximum design capacity must be indicated*	*3 chamber Biomite Wastewater Treatment Package Plant: Max. daily throughput capacity of 21m³*	21 + 25 + 100 = 146 Kℓ (m³)

4. SITE ACCESS

(a) Is there an existing access road?	***YES***	*NO*
(b) If no, what is the distance in (m) over which a new access road will be built?		*m*

(c) Describe the type of access road planned:

- **Upgrade to Long Street (MR348) at entrance to property** for dedicated left & right turning lanes i.e. to allow for 20m stacking distance, road will be widened by ±3.5m (for approx.60m in length) on either side of entrance, with width tapering down on either side. Max. length of upgrade on either side ±170m (left turning lane likely to be shorter).
- **Access** off Longstreet to remain in current position, maintaining 'right-of-way' servitude to SAPS property. Access, internal egress and parking areas (around filling station & Craft & Skills Development Centre) to be block paving.

Please note: *The position of the proposed access road must be indicated on the site plan.*

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

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

The property is approx. 2.2ha in size, however only ±1.4ha is flat enough to be developable. The southern portion of the property is characterised as a steep densely vegetated slope (above the 4.5m contour line), and thus excluded for the target 'development site'. The majority of the northern portion of this site has been completely transformed by historical use of the area as a road- / building-material stockpile site, parking & maintenance area for large vehicles (construction plant, municipal sewerage & refuse trucks and busses), as well as an informal dumping zone (*clearly seen in the aerial image Fig.6 below*).

The 100m from the highwater mark of the Great Brak Estuary / River extends over approx. half of this disturbed area, and roughly correlates with the alignment of the 1:100 floodline of the Estuary (*see Fig. 7 & 8 below)*. The Estuarine Functional Zone (EFZ) of the Great Brak Estuary extends across the entire development site up to the 5m contour line.

The vegetation mapped for the development site is 'Groot Brak Dune Strandveld', which has an ecosystem status of 'Endangered'. Remnant vegetation is restricted to the entrance, periphery and southern portion of the 'development site' and consists of scattered trees and tree-clumps (indigenous & alien) indicative of Dune Thicket, with disturbed grassy patches. A degraded wetland is located within the grassed southern portion of the site, at the base of vegetated slope.

The 'development site' falls within an area mapped to include a combination of Aquatic Critical Biodiversity Area (CBA) and River/Wetland Ecological Support Area (ESA2 - Restore).

Figure 6: Aerial image indicating property boundary (red); approx.5m contour line (light green), 100m (yellow) & 200m (blue) from highwater mark of estuary (Google-earth Pro, 2019).

Preferred Alternative 1 – Filling Station located on existing disturbed platform, in approx. centre of property, next to Police Station erf.

- More than half of the filling station main building, as well as the underground fuel tanks and truck

re-fuelling / delivery area, are to be located above the 1:100 year floodline.

- The remainder of the filling station building footprint and the Community Craft & Skills Development Centre buildings on the north-eastern corner of the development site, which fall below the 1:100 year floodline, are to be raised above the 1:100 year floodline with infill material (G4 gravel), to mitigate potential flooding risk.
- The outdoor deck & seating of the restaurant, as well as the small Amphitheatre, are to be located behind the main Filling Station building; while the picnic area, boardwalk and children's playground is to extend behind the Police Station erf. Access to the Recreational Park will be through the filling station main building and around the eastern parking area.

Figure 7: Preferred Alternative 1 Layout in relation to 1:50 & 1:100 year floodlines of estuary & 4.5m contour line.

Alternative 2 – Filling Station located in vegetated area, above the 1:100 year floodline and below the 4.5m contour line i.e. further south, at base of vegetated slope.

- The entire extent of the filling station main building, as well as underground fuel tanks, have been placed above the 1:100 year floodline, with only a small portion of the forecourt structure extending below it. This filling station infrastructure still falls within 200m from the highwater mark of the estuary.
- The Community Craft & Skills Development Centre buildings remain on the north-eastern corner of the site and will be raised above the 1:100 year floodline will infill G4 gravel.
- The outdoor deck & seating of the restaurant will still be located directly behind the main building, however the facilities associated with the Recreational Park: small Amphitheatre, picnic area, boardwalk and children's playground, will all be restricted behind the Police Station erf, and accessed from in front of the filling station.
- Proposed advertising pylon, rainwater tanks, bio-mite wastewater treatment package plant, effluent conservancy tank etc. to be positioned similar to that of the preferred Alternative 1 layout.

Figure 8: Alternative 2 layout in relation in relation to 1:50 & 1:100 year floodlines of estuary & 4.5m contour line.

Coordinates of all the proposed activities on the property or properties (sites): ***Preferred Alternative 1:***	***Latitude (S):*** *(deg.; min.; sec)*			***Longitude (E):*** *(deg.; min.; sec.)*		
	Filling Station forecourt (handling of dangerous goods; infill & excavations etc. within 100m of highwater mark)					
	34°	03‘	18.25"S	22°	13‘	10.22“E
	Underground fuel storage tanks (184m³) & Truck fuel pump/fuel delivery area (storage & handling of dangerous goods; infill & excavations etc. partially within 200m of highwater mark)					
	34°	03‘	18.52“S	22°	13‘	11.49“E
	Advertising Pylon (excavation within 100m of highwater mark)					
	34°	03‘	16.16“S	22°	13‘	10.89“E
	Craft & Skill Development Centre (infill, excavations etc. within 100m of highwater mark)					
	34°	03‘	17.17“S	22°	13‘	12.95“E
	Greywater conservancy tank (100kl)(excavations etc. within 100m of highwater mark)					
	34°	03‘	17.41“	22°	13‘	13.55“
	Amphitheatre (clearance of endangered veg.)					
	34°	03‘	19.56“	22°	13‘	10.07“
	Children’s Playground (clearance of endangered veg.)					
	34°	03‘	19.04“	22°	13‘	07.68“

Coordinates of all the proposed activities on the property or properties (sites): ***Alternative 2 Layout:***	***Latitude (S):*** *(deg.; min.; sec)*			***Longitude (E):*** *(deg.; min.; sec.)*		
	Filling Station forecourt (handling of dangerous goods; infill & excavations etc. within 200m of highwater mark)					
	34°	03‘	19.00"S	22°	13‘	09.83“E
	Filling Station main building (clearance of endangered veg.)					
	34°	03‘	19.62"S	22°	13‘	09.72“E
	Underground fuel storage tanks (184m³) & Truck fuel pump/fuel delivery area (storage & handling of dangerous goods; infill & excavations etc. within 200m of highwater mark)					
	34°	03‘	18.52“S	22°	13‘	11.49“E

	Advertising Pylon (excavation within 100m of highwater mark)					
	34°	03‘	16.16“S	22°	13‘	10.89“E
	Craft & Skill Development Centre (infill, excavations etc. within 100m of highwater mark)					
	34°	03‘	17.17“S	22°	13‘	12.95“E
	Greywater conservancy tank (100kl)(excavations etc. within 100m of highwater mark)					
	34°	03‘	17.41“	22°	13‘	13.55“
	Amphitheatre (clearance of endangered veg.)					
	34°	03‘	18.83“	22°	13‘	08.73“
	Children’s Playground (clearance of endangered veg.)					
	34°	03‘	18.91“	22°	13‘	07.56“

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

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

- Existing **degraded depression wetland** to be incorporated into stormwater management system and rehabilitated to create a natural ‘water feature’ within the Recreational Park.

Coordinates of the boundary / perimeter of all proposed aquatic or ocean-based activities (sites) (if applicable):	***Latitude (S):** (deg.; min.; sec)*			***Longitude (E):** (deg.; min.; sec)*		
	Degraded Wetland (centre-point)					
	34°	03'	19.88"	22°	13'	08.85"
	°	'	"	°	'	"
	°	'	"	°	'	"
	°	'	"	°	'	"

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

Upgrade to Long Street (MR348) at entrance to property (on Portion 7 of Farm 135 & RE/130): for dedicated left & right turning lanes i.e. to allow for 20m stacking distance, road will be widened by ±3.5m (for approx.60m in length) on either side of entrance, with width tapering down on either side. Max. length of upgrade on either side ±170m (left turning lane likely to be shorter).

Works to include extension and upgrade to existing open, unlined stormwater channel south of Long Street, with grass blocks.

Figure 9: Upgrade of Stormwater channel beside Long Street as requested by Municipality.

Access: off Longstreet to remain in current position, maintaining ‘right-of-way’ servitude to SAPS property. Access, internal egress and parking areas (around filling station & Craft & Skills Development Centre) to be block paving.

Upgrade existing open, unlined stormwater channel on Erf 451 (onto RE/130): On request from Municipality, the developer is to shape and line existing channel with grass-blocks.

Figure 10: Upgrade of existing stormwater channel with Erf 451, as requested by Municipality.

Open, unlined Stormwater cut-off channel behind development (on Erf 4788): Channel to align along base of southern slope behind filling station & recreational park, and direct stormwater to and away from the existing degraded wetland area (to be rehabilitated), as middle point. Stormwater will be directed west towards existing stormwater channel on Erf 451, and east towards and along property eastern boundary to Rainwater storage tanks.

Palisade fenceline along property boundary to replace existing strand wire fenceline.

For linear activities:	***Latitude (S):*** *(deg.; min.; sec)*			***Longitude (E):*** *(deg.; min.; sec)*		
Upgrade to Long Street (northern edge of road)						
• *Starting point of the activity* ***Western extent (on RE/130)***	34°	03‘	14.32“S	22°	13‘	07.43“E
• *Middle point of the activity* ***Opposite entrance to Erf 4788***	34°	03‘	15.34“S	22°	13‘	10.84“E
• *End point of the activity* ***Eastern extent (on 7/135)***	34°	03‘	16.28“S	22°	13‘	14.09“E
Shape & line existing stormwater channel on Erf 451 onto RE/130 (at Long Street)						
• *Starting point of the activity* ***Southern extent of Erf 541***	34°	03‘	20.19“S	22°	13‘	06.19“E
• *Middle point of the activity* ***Middle of existing channel approx. opposite SAPS southern property boundary***	34°	03‘	17.36“S	22°	13‘	07.12“E
• *End point of the activity* ***End of channel at Long Street (RE/130)***	34°	03‘	14.92“S	22°	13‘	08.05“E
Unlined Stormwater channel behind development						
• *Starting point of the activity* ***At western boundary – Erf 451***	34°	03‘	19.71“S	22°	13‘	06.38“E
• *Middle point of the activity* ***Degraded Wetland***	34°	03‘	19.97“S	22°	13‘	08.51“E
• *Turn at eastern boundary*	34°	03‘	20.23“S	22°	13‘	10.73“E
• *End point of the activity* ***Rainwater storage tanks on eastern boundary***	34°	03‘	19.24“S	22°	13‘	12.08“E

Note: *For linear development proposals longer than 1000m, please provide an addendum with co-ordinates taken every 250m along the route. All important waypoints must be indicated and the GIS shape file provided digitally.*

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

Locality Map:	*The scale of the locality map must be at least 1:50 000.* *For linear development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map.* *The map must indicate the following:* • *an accurate indication of the project site position as well as the positions of the alternative sites, if any;* • *road names or numbers of all the major roads as well as the roads that provide access to the site(s)* • *a north arrow;* • *a legend;*

	• *a linear scale;* • *the prevailing wind direction (during November to April and during May to October); and* • *GPS co-ordinates (to indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).* *For an ocean-based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken.* *Coordinates must be provided in degrees, minutes and seconds using the Hartebeesthoek94; WGS84 co-ordinate system.*

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

6. SITE PHOTOGRAPHS

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

SECTION B: DESCRIPTION OF THE RECEIVING ENVIRONMENT

1. SITE/AREA DESCRIPTION

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

1.1 GRADIENT OF THE SITE

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

Flat	***Flatter than 1:10***	~~*1:10 – 1:4*~~	~~*Steeper than 1:4*~~

1.2 LOCATION IN LANDSCAPE

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

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

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

The development site is located on the southern floodplain of the Great Brak Estuary / River (as is the entire town of Great Brak River). The main access road to Great Brak, Long Street, forms the northern boundary of the property, and essentially separates the development site from the estuary.

A steep, vegetated slope forms the southern portion of development property (Erf 4788). This slope forms part of a small hillside extending west – east, between the coastline in the east and Sandhoogte Road (a small valley in the west). The N2 highway forms the south-eastern boundary of the side, with the MR344 running parallel approximately parallel to it, further to the south-east. The coastline is located approx.700m further to the south-east, with the mouth of the Great Brak Estuary located approx. 1.7km to the east.

Figure 11: Elevated terrain / landscape view of Erf 4788 (red polygon), Great Brak River.

1.3 GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

(b) If any of the answers to the above is "YES" or "UNSURE", specialist input may be requested by the Department. (Information in respect of the above will often be available at the planning sections of local authorities. The 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

(c) Indicate the type of geological formation underlying the site.

Granite	*Shale*	***Sandstone***	*Quartzite*	*Dolomite*	*Dolorite*	*Other (describe)*

Provide a description.

Soils & Geology (ENPAT) (CapeFarmMapper, ver 2.1.3):

Land Type:	Hb62
Soil:	Grey regic sands and other soils
Geology:	Mainly fixed dunes, dune rock and aeolian sand.

Erodibility - High: Factor:0.61

Soil Type:

Symbol:	CA
Class:	Soils with a strong texture contrast
Description:	Soils with a marked clay accumulation, strongly structured and a non-reddish colour. In addition one or more of vertic, melanic and plinthic soils may be present
Depth:	>= 450 mm and < 750 mm
Clay:	< 15%

Drawn for GeoTechnical Report (Paton, 2017), attached as Annexure G5):

The 1:250000-scale geological map indicates that the site is entirely underlain by alluvial sediments, deposited on the banks of the Great Brak River. Large parts of the town are developed on these **alluvial sediments**, which are known to be several meters thick.

The Uitenhage Group (Enon Formation, Kirkwood Formation & similar younger deposits) occur to the north and west of the site. Granite rocks of the Maalgaten Suite occur to the north and east of the town. There are no geological faults near the site and the seismic risk is generally low. The geology is generally considered stable for urban development, although periodic flooding of the river is well known.

The natural soil profile underlying the site consists of a dark brown silty sand horizon (original topsoil), which is underlain by alluvial/estuarine sand. The **natural soil profile is overlain by one or more horizons of imported gravel & rubble material (uncontrolled fill), which covers most of the site, and increases in thickness to the south**. The fill exposed in test pits was generally benign with no sign of contamination or significant deleterious materials, such as rubbish or organic matter, and is unlikely to

pose a problem. No rock or residual soil was encountered in any of the test positions. The test pits were easily excavated and the consistency of the soil is generally medium dense to dense but cohesionless. The insitu estuarine soils are potentially compressible.

The soil moisture is generally moist and the **permanent water table was encountered at a depth ranging between 2.2m (north) and 2.8m (south) below ground level (GL).**

The lab results indicate that the insitu estuarine soils below the original topsoil horizon, are dominated by sand-sized particles, with very little fines (silt and clay), and a low plasticity index. Samples tested are classified under the Unified Soil Classification (USC) system as poorly graded sands with little or no fines (SP). Representative samples of different soil horizons were collected for Mod/CBR/Indicator tests to determine the subgrade potential for pavement design and general filling under and around structures. The test results indicate that the fill material (sampled at TP3 & 4) is variable quality (G7-G5, i.e. marginal to good) and may be suitable for use as a filling material under structures, and/or as a selected subgrade layer for the construction of the forecourt and parking areas. The tests indicate that the underlying estuarine sands (sampled at TP5) are G7 quality.

Soil has a **high conductivity due to dissolved** salts and may be corrosive towards buried metallic fittings. The pH is generally neutral to slightly alkaline.

Bearing capacity is unlikely to be a problem for the proposed single storey structures, and if the foundation trenches are well compacted, total settlement is likely to be less than 10mm.

There is **no active clay expected** on this site.

All excavations to a depth of 3m are classified as "Soft" in terms of SABS 1200D. The sidewalls of test pits collapsed once the water table was reached due to the **cohesionless nature of the soil**.

The soil conditions were generally suitable for the founding of light structures, requiring only conventional compaction to minimise settlement, but deep excavations for USTs may be hampered by the water table, requiring dewatering.

1.4 SURFACE WATER

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

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

(b) Provide a description.

Drawn from the Freshwater Impact Assessment Report (Belcher, 2017), attached as Annexure G2:

The study area is located in the K20A quaternary catchment and within the **floodplain of the Great Brak Estuary**. The aquatic features within the site comprise of a drainage feature that is located on the north-western boundary of the site and a **small depression wetland** within the centre of the site.

A concrete stormwater channel, associated with the N2 highway off-ramp, is located along the south-eastern boundary.

1.5 THE SEAFRONT / SEA

(a) Is the site(s) located within any of the following areas? (highlight the appropriate boxes).
If the site or alternative site is closer than 100m to such an area, please provide the approximate distance in (m).

AREA	YES	NO	UNSURE	If "YES": Distance to nearest area (m)
An area within 100m of the high water mark of the sea	~~YES~~	**NO**	~~UNSURE~~	
An area within 100m of the high water mark of an estuary/lagoon	**YES**	~~NO~~	~~UNSURE~~	0m
An area within the littoral active zone	~~YES~~	**NO**	~~UNSURE~~	
An area in the coastal public property	~~YES~~	**NO**	~~UNSURE~~	
Major anthropogenic structures	~~YES~~	**NO**	~~UNSURE~~	
An area within a Coastal Protection Zone	**YES**	~~NO~~	~~UNSURE~~	0m
An area seaward of the coastal management line	**YES**	~~NO~~	~~UNSURE~~	0m
An area within the high risk zone (20 years)	YES	**NO**	UNSURE	
An area within the medium risk zone (50 years)	YES	**NO**	UNSURE	
An area within the low risk zone (100 years)	YES	**NO**	UNSURE	
An area below the 5m contour	**YES**	~~NO~~	~~UNSURE~~	
An area within 1km from the high water mark of the sea	**YES**	~~NO~~	~~UNSURE~~	700m
A rocky beach	~~YES~~	**NO**	~~UNSURE~~	
A sandy beach	~~YES~~	**NO**	~~UNSURE~~	

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

1.6 BIODIVERSITY

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

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

Systematic Biodiversity Planning Category	CBA	ESA	Other Natural Area ("ONA")	No Natural Area Remaining ("NNR")
If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan and the conservation management objectives	According to the updated 2017 Western Cape Biodiversity Sector Plan (WCBSP, CapeNature), the 'development site' falls within an area mapped as an **Aquatic / Estuary Critical Biodiversity Area (CBA)**: Areas in a natural condition that is required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure. Category 1: CBA: Aquatic; Category 2: CBA: Estuary Objective: Maintain in a natural or near-natural state, with no further loss of natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate. The southern, vegetated slope (to be avoided) is mapped as a Terrestrial CBA (same objective as above).			
	River/Wetland Ecological Support Area (ESA2 – Restore from other land use): Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of PAs or CBAs, and are often vital for delivering ecosystem services. Objective: Restore and/or manage to minimize impact on ecological processes and ecological infrastructure functioning, especially soil and water-related services, and to allow for faunal movement			

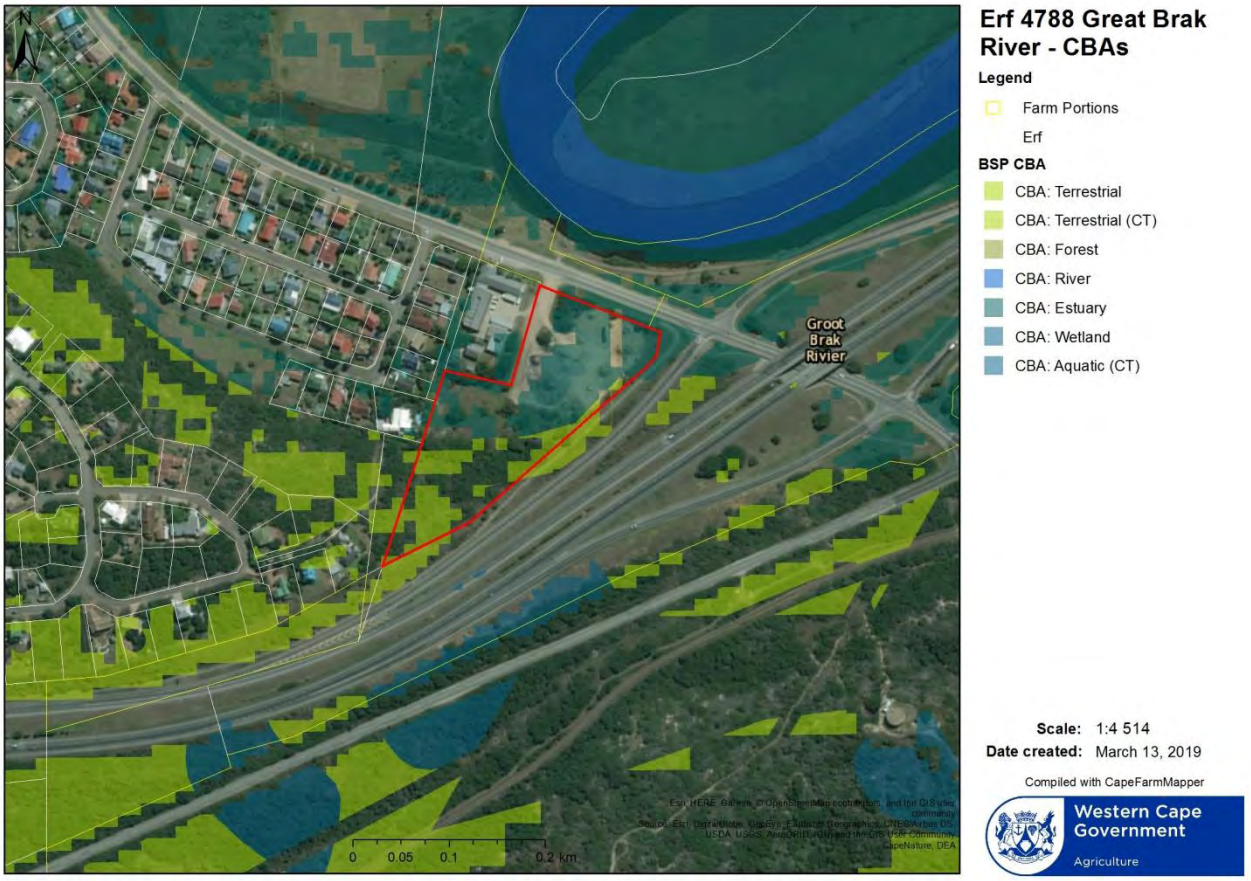

Figure 12: Critical Biodiversity Areas (CapeFarmMapper, vers 2.1.3, 2019)

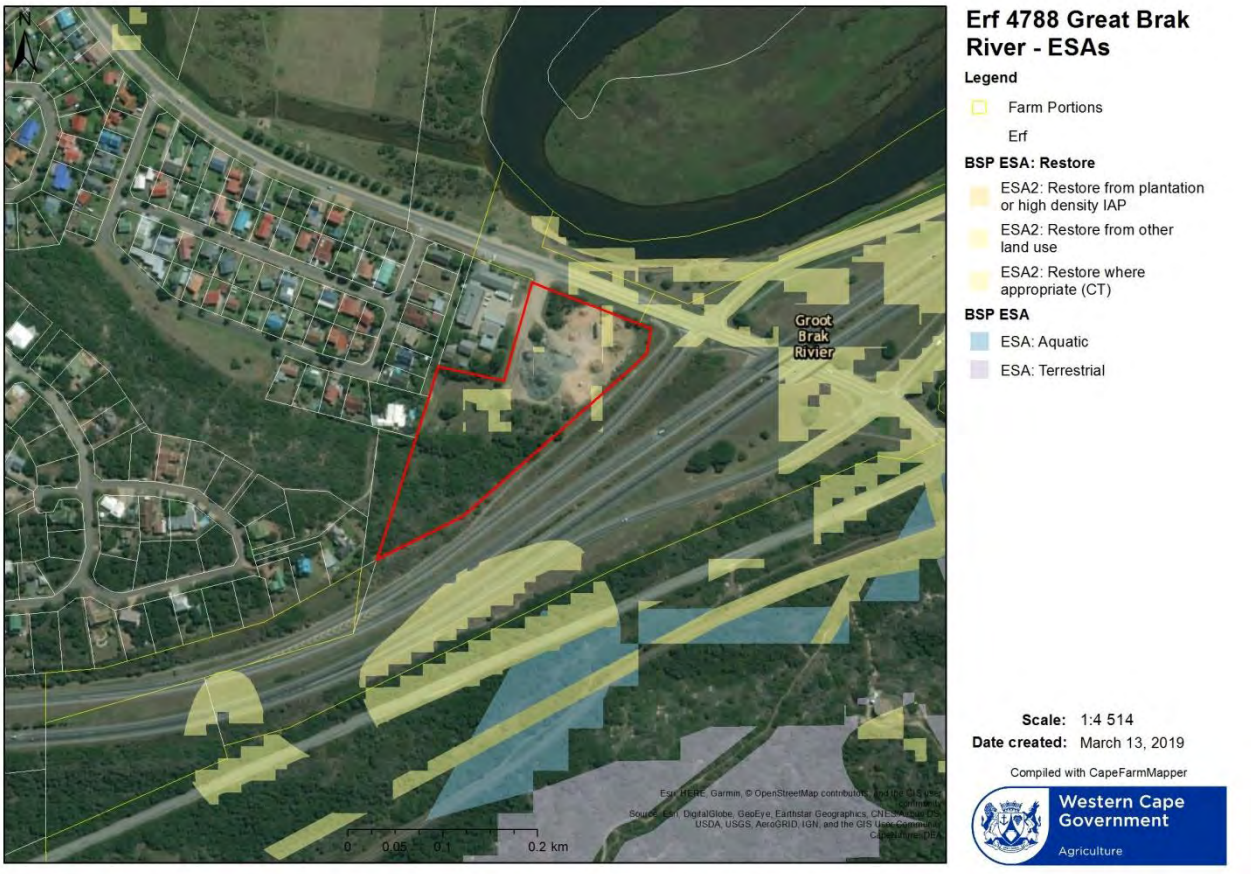

Figure 13: Ecological Support Areas (ESAs)(CapeFarmMapper, ver 2.1.3., 2019)

Describe the site's CBA/ESA quantitative values (hectares/percentage) in	Although the development site has been mapped as CBAs, the preferred filling station development footprint falls within an area which has been

relation to the prevailing level of protection of CBA and ESA (how many hectares / what percentages are formally protected locally and in the province)	completely transformed / disturbed by historical use of the property as a material stockpile site / maintenance / parking yard. I.e. this area of CBA is no longer natural / has already been lost / transformed. The alternative filling station footprint falls within an area of CBA / ESA, which although partially vegetated, has been largely disturbed by illegal dumping and burning of construction and general waste.

(b) Highlight and describe the habitat condition on site.

Habitat Condition	***Percentage of habitat condition class (adding up to 100%) and area of each in square metre (m^2)***		***Description and additional comments and observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing/harvesting regimes, etc.)***
Natural	*44%*	*9943m^2*	Southern, vegetated slope of property (above 5m contour) – excluded from 'development site'. Dune Milkwood Thicket includes individuals of several alien invasive plants, however vegetation predominantly indigenous.
Near Natural (includes areas with low to moderate level of alien invasive plants)	*22%*	*4818m^2*	Remnant vegetation on remainder of development site includes individuals & clumps of indigenous trees / shrubs scattered around the periphery of the site, as well as the grassed area on the southern portion of the site (below the 5m contour). Numerous patches & species of alien invasive species noted, as well as disturbed sites where construction, general and garden waste has been dumped, buried and burnt.
Degraded (includes areas heavily invaded by alien plants)	*0%*	*0m^2*	----
Transformed (includes cultivation, dams, urban, plantation, roads, etc.)	*34%*	*7396m^2*	The majority of the preferred development site has been completely transformed by current & historical use as a road / construction material stockpile site, and vehicle maintenance / parking yard. No vegetation remaining.

(c) Complete the table to indicate:
(i) the type of vegetation present on the site, including its ecosystem status; and
(ii) whether an aquatic ecosystem is present on/or adjacent to the site.

Terrestrial Ecosystems		***Description of Ecosystem, Vegetation Type, Original Extent, Threshold (ha, %), Ecosystem Status***
Ecosystem threat status as per the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	~~*Critically*~~	----
	Endangered	**Groot Brak Dune Strandveld** (status: 2016)(Mucina & Rutherford, 2006) Thicket Biome, Dune Mosaic Sand Fynbos Habitat, Variant Hartenbos Strandveld (Vlok VegMap)
	~~*Vulnerable*~~	----
	Least Threatened	**Canca Limestone Fynbos** (status: 2016))(Mucina & Rutherford) Biome: Drain, Habitat: Riverine Saltmarsh, Variant: GrootBrak River Saltmarsh (Vlok VegMap)

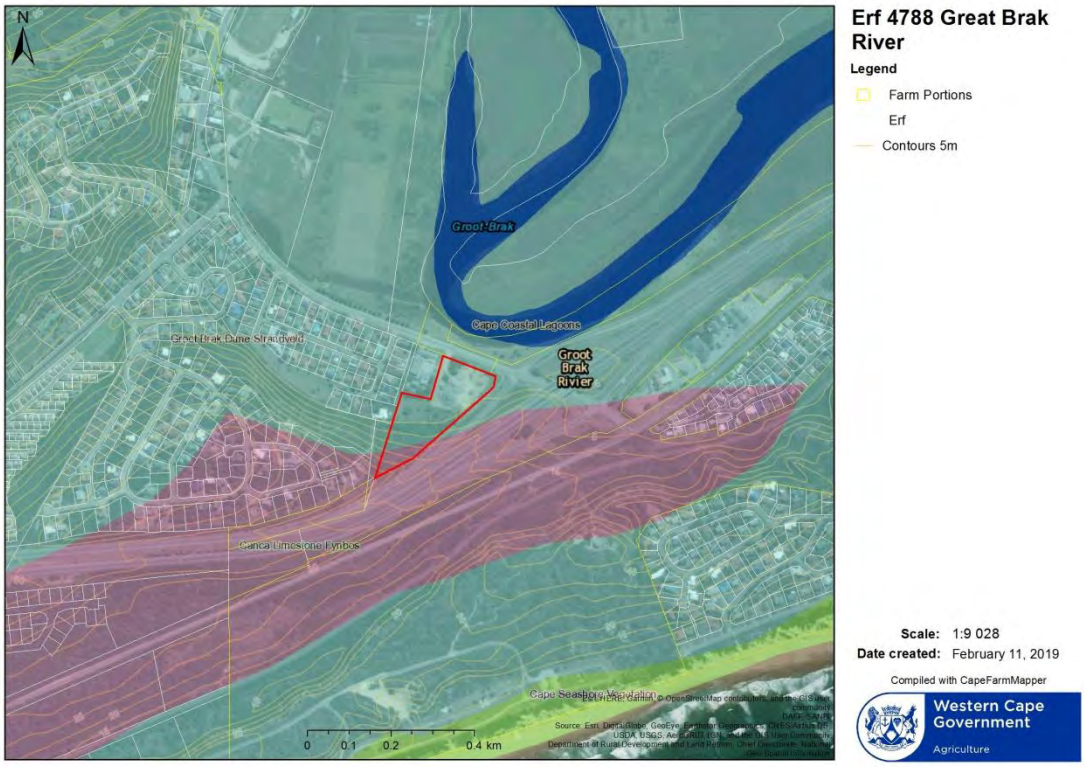

Figure 14: Vegetation Map - Mucina & Rutherford (CapeFarmMapper, vers2.1.3, 2019)

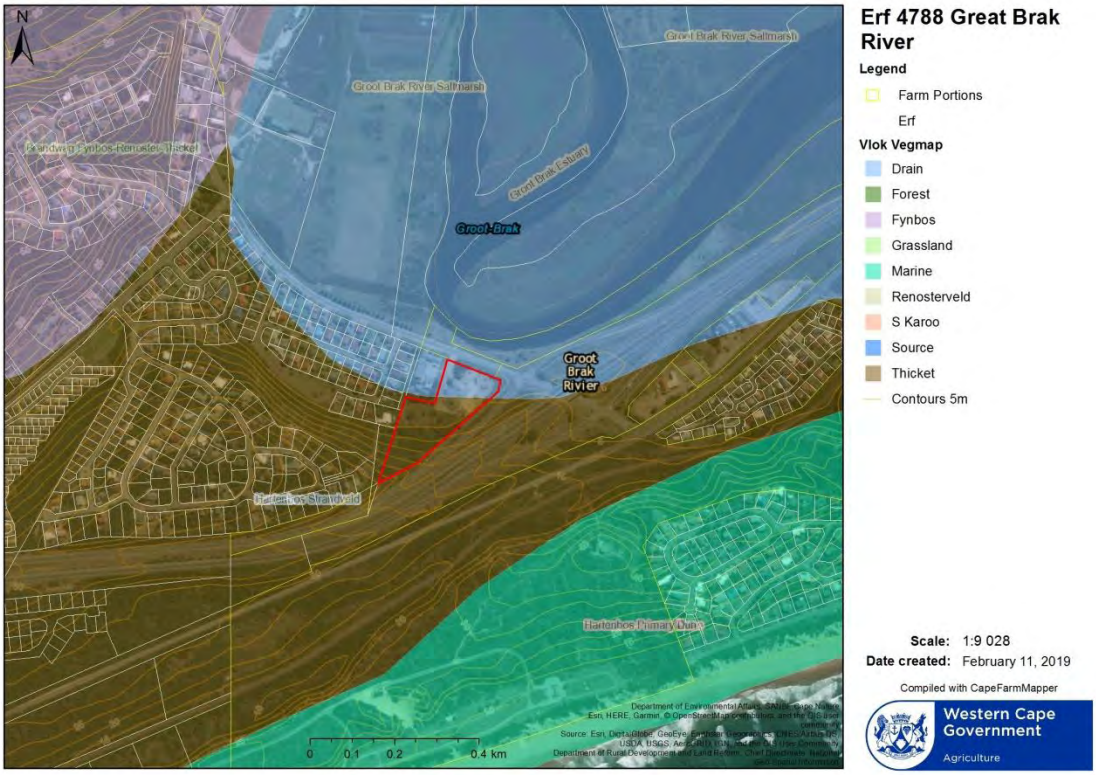

Figure 15: Vlok VegMap (CapeFarmMapper, vers2.1.3, 2019)

Aquatic Ecosystems						
Wetland (including rivers, depressions, channelled and unchannelled wetlands, flats, seeps pans, and artificial wetlands)			***Estuary***		~~*Coastline*~~	
YES	~~*NO*~~	~~*UNSURE*~~	***YES***	~~*NO*~~	~~*YES*~~	~~*NO*~~

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

Other than the intact Dune Thicket covering the southern slope of the property (above the 5m contour – excluded from the development site), remnant vegetation on the development property includes individual trees and thicket clumps, including Milkwood (*Sideroxylon inerme),* Outeniqua Yellowwood (*Afrocarpus falcatus),* Karee Tree (*Searsia lancea),* Wild Pear (*Dombeya rotundifolia),* Sweetthorn (*Acacia karoo),* Cape Plum (*Harpephylum caffrum),* Cluster Fig (*Ficus sur),* Camphor Tree (*Tarchonanthus camphoratus),* Wild Olive (*Olea europaea subsp. africana),* Blinktaaibos (*Searsia lucida),* Glossy Crowberry (*Searsia glauca),* Bitou (*Chrysanthemoides monilifera),* Crossberry (*Grewia occidentalis),* Needle Bush (*Azima tetracantha),* Krantz Aloe (*Aloe arborescens)*. Groundcovers scattered among the disturbed grass patches, include *Pelargonium sp., Oxalis sp.* and *Carpobrotus edulis.* Alien invasive species scattered among the above indigenous species include: Rooikrans (*Acacia cyclops),* Kikuyu grass (*Pennisetum clandestinum),* Port Jackson (*Acacia saligna),* Castor Oil (*Ricinus communis), Lantana camara, Yucca sp.* and Manatoka *(Myoporum tenuifolium)*.

Several large Milkwood and Yellowwood trees are located among Port Jackson, *Searsia sp. &* Crossberry bushes at the entrance to the property (north-western corner), with two large Milkwoods and a Karee tree forming an island opposite the Police Station side entrance. Considerable dumped waste materials noted under these trees.

Figure 16: Remnant trees located on north-western corner of development site.

A large Wild Pear tree is located approx. in the middle of / against the northern property boundary, while a small Yellowwood is located among Port Jackson trees near the north-eastern corner of the property. These trees all fall within the 10m building line / water servitude aligned / to be maintained along this boundary. Transformed area depicted in Fig.18 earmarked for location of Community Craft & Skills Development Centre.

Figure 17: Wild Pear tree on northern boundary.

Figure 18: Remnant trees on north-eastern corner of development site.

Two Milkwood trees, a Wild Plum and a Wild Olive tree are growing south of the Police Station's side entrance, just beyond the western property boundary / shared 20m wide 'right-of-way' servitude, while several Milkwood, Wild Plum and Wild Fig trees are growing along the southern (back) boundary of the Police Station erf on the development property. The area directly south of the disturbed platform of the development site consists of uneven ground created by past excavations and dumping of waste material. This area is covered with invasive grasses, *Carpobrotus edulis* and

Lantana camara. Evidence of burnt waste and human faeces, is noted in various 'holes' here.


Figure 19: Dumped construction, household & garden waste overgrown with Suurvy & grasses – southern extent of preferred Filling Station building footprint.



Figure 20: Excavations behind dumpsite, with evidence of burning and human faeces.

Several large, individual Milkwood trees are scattered in the grassed area behind the Police Station erf (proposed recreational park area). Unfortunately much of the area below these trees, and those along the base of the southern slope, has been covered with dumped garden and general waste.


Figure 21: Open grassed area with scattered Milkwood trees behind Police Station erf earmarked for Recreational Park.

Figure 22: Garden & household waste dumped under Milkwood trees & along base of vegetated slope.

Drawn from the Freshwater Impact Assessment Report (Belcher, 2018), attached as Annexure G2:

Three aquatic features occur adjacent to / within the site:

- An open, unlined **stormwater drainage channel** aligned just beyond the western property boundary (on Erf 451), which drains stormwater from the south-western hillside, past the site and under Long Street into the estuary. This channel is currently vegetated with invasive grasses & plants and garden ornamentals and used at a garden refuse dumpsite by the neighbouring residential area.

Figure 22: Landscape view, from south to north, of western property boundary & stormwater channel.

- A **small, degraded wetland** in the centre of the property (at the base of the southern vegetated slope), that comprises of a mix of grasses and sedges within an isolated depression, with *Carpobrotus edulis* and invasive grasses occurring adjacent to the wetland area. The depression occurs within the disturbed area where past excavation (associated with an historic stormwater drainage feature which crossed the site west to east, at the base of the hillside), the dumping of material and clearing of natural vegetation cover, has taken place;

Figure 2317: Degraded wetland in centre of property.

- A **concrete stormwater channel** aligned just beyond the south-eastern boundary, which conveys runoff from the highway within a concrete channel to a drop drain under Long Street and the estuary.

Figure 24: Aquatic feature adjacent to / within the development property.

The Great Brak River Catchment is mapped as a river FEPA and the estuary as a FEPA wetland. The portion of the property that occurs below the 1 in 100 year floodline is mapped as an aquatic Critical Biodiversity Area (CBA: Estuary, River and Wetland) while the areas above the floodline are mapped as terrestrial CBA. The CBAs occur together with Ecological Support Areas within the site. The mapping implies that these areas **should be restored and/or managed to minimize impact** on ecological processes and ecological infrastructure functioning, especially soil and water-related services, and to allow for faunal movement.

Both the unlined stormwater drainage feature (within Erf 541) and the depression wetland at the site are considered to be in a **seriously modified ecological condition** with extensive loss of ecological functionality. The drainage features is considered to be of a moderate to low ecological importance and sensitivity due to the link that it provides between the estuary and the hillslope. The depression is an **isolated wetland** that is the result of past excavation within the site and is of a low ecological importance and sensitivity.

The **estuary is deemed to be in a largely modified ecological condition** and is not rated as being particularly important in terms of its overall conservation importance, but is valued as a recreational area. The functional importance of the estuary is also deemed to be high due to the fact that the estuary provides **an important movement corridor for river biota** that breed in the sea.

The existing compromised condition and poor water quality of the estuary can be attributed to direct inputs of wastewater into the estuary (leaking or malfunctioning sewage septic & conservancy tanks) and from contaminated runoff from the catchment (e.g. sewage and stormwater inputs into the catchment and/or agricultural return flow that contain high levels of fertilizers).

From a freshwater perspective the constraints on the proposed filling station are the drainage feature, the depression wetland and the proximity to the Great Brak Estuary. The opportunity exists to **enhance / rehabilitate the modified drainage feature and wetland area** and to integrate them with the stormwater management system for the site. Of key importance is to **mitigate any potential contamination of the adjacent estuarine habitat on site**.

Remnant pockets of indigenous thicket vegetation within the site should be retained, particularly along the base of the hillslope and the pockets scattered along the property boundaries, while alien invasive species should be removed and further planting of indigenous species should take place.

It must be noted that the entire development proposal falls within the Estuarine Functional Zone (EFZ) of the Great Bark Estuary as defined in the 2011 National Biodiversity Assessment: Estuary Component (van Niekerk & Turpie 2012) and depicted the figure below:

Figure 25: Geographical extent of the estuarine functional zone of the Great Brak River estuary as defined in the NBA (van Niekerk & Turpie, 2012).

The estuarine functional zone (EFZ), defined by the 5m topographical contour (as indicative of 5m above mean sea level), aligns along the base of the southern slope of the development property. Although the entire development site is located below the 5m contour, it is effectively isolated from the rest of the EFZ and the Great Brak Estuary by Long Street and is thus **no longer functionally linked with the estuary** (Clark, 2017). Estuarine biota are unlikely to be able to use this site and the risk of contaminated stormwater reaching the estuary from the site is minimal, except possibly during a major flood (would need to be large enough to cover Long Street) or if a fuel delivery tanker had an accident on the road before reaching the site. Pollution control measures will be implemented on the site to ensure that no contamination of surface stormwater or groundwater takes place. These measures will be defined in the Environmental Management Programme (EMPr) for implementation.

2. LAND USE OF THE SITE

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

Untransformed area *Vegetated southern slope*	~~*Low density residential*~~	~~*Medium density residential*~~	~~*High density residential*~~	~~*Informal residential*~~
~~*Retail*~~	~~*Commercial & warehousing*~~	~~*Light industrial*~~	~~*Medium industrial*~~	~~*Heavy industrial*~~
~~*Power station*~~	~~*Office/consulting room*~~	~~*Military or police base/station/compound*~~	~~*Casino/entertainment complex*~~	~~*Tourism and Hospitality facility*~~
~~*Open cast mine*~~	~~*Underground mine*~~	~~*Spoil heap or slimes dam*~~	~~*Quarry, sand or borrow pit*~~	~~*Dam or reservoir*~~
~~*Hospital/medical centre*~~	~~*School*~~	~~*Tertiary education facility*~~	~~*Church*~~	~~*Old age home*~~
~~*Sewage treatment plant*~~	~~*Train station or shunting yard*~~	~~*Railway line*~~	~~*Major road (4 lanes and more)*~~	~~*Airport*~~
~~*Harbour*~~	~~*Sport facilities*~~	~~*Golf course*~~	~~*Polo fields*~~	~~*Filling station*~~
~~*Landfill or waste treatment site*~~	~~*Plantation*~~	~~*Agriculture*~~	***River, stream or wetland*** *Within Estuarine Functional Zone / NFEPA Estuary Wetland. Degraded wetland / depression below slope.*	~~*Nature conservation area*~~
~~*Mountain, koppie or ridge*~~	~~*Museum*~~	~~*Historical building*~~	~~*Graveyard*~~	~~*Archaeological site*~~
Other land uses (describe):	**Shared 20m 'right-of-way' servitude** at entrance to provide access to Police Station side entrance; **10m water servitude** aligned along northern & a portion of eastern property boundary; **Construction and Road material stockpile site**; **Illegal dumpsite** for construction, general & garden waste. **Vehicle maintenance area;** **Overnight stop/parking area**.			

(a) Provide a description.

The southern portion of the property is characterised as a vegetated steep slope (above the 5m contour) covered with dense Dune Thicket (excluded from the development site).

Northern portion of property has been used by Municipality, SANRAL, Garden Route District Municipality & Provincial Roads Dept. etc., as well as various construction companies and bus operators, for many years as a **temporary material stockpile site** (for mostly service & road construction) and **maintenance / parking yard** for large construction / service vehicles and busses.

This disturbed area has also become a popular **illegal dumpsite** and **overnight stop/vehicle maintenance and parking area** for municipal garbage and sewerage removal vehicles, busses, as well as other construction-related plant and vehicles.

The southern portion of site, between the transformed northern port and the 5m contour, has become a **dumping ground** for predominantly garden & household waste, as well as an 'open bush toilet' used most likely by those making use of the site as an overnight truck stop / maintenance area.

3. LAND USE CHARACTER OF THE SURROUNDING AREA

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

subjective

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

Untransformed area *Southern slope extents to west*	***Low density residential*** *Residential suburb S & SW of site on top of hillside*	***Medium density residential*** *Residential suburb west of site.*	~~*High density residential*~~	~~*Informal residential*~~
Retail *SPAR at De Dekke Complex*	~~*Commercial & warehousing*~~	~~*Light industrial*~~	~~*Medium industrial*~~	~~*Heavy industrial*~~

~~*Power station*~~	***Office/consulting room*** *Several residential houses along Long Street converted to offices*	*Military* ***or police base/station****/compound Great Brak SAPS directly west of site*	~~*Casino/entertainment complex*~~	~~*Tourism and Hospitality facility*~~
~~*Open cast mine*~~	~~*Underground mine*~~	~~*Spoil heap or slimes dam*~~	~~*Quarry, sand or borrow pit*~~	*Dam or* ***reservoir*** *Water reservoir on hillside south-east of N2.*
~~*Hospital/medical centre*~~	~~*School*~~	~~*Tertiary education facility*~~	~~*Church*~~	***Old age home*** *Frail care facility on Erf 441 directly SW of the site.*
~~*Sewage treatment plant*~~	~~*Train station or shunting yard*~~	~~*Railway line*~~	***Major road (4 lanes and more)*** *N2 Highway between Mossel Bay & George*	~~*Airport*~~
~~*Harbour*~~	~~*Sport facilities*~~	~~*Golf course*~~	~~*Polo fields*~~	***Filling station*** *Great Brak TOTAL*
~~*Landfill or waste treatment site*~~	~~*Plantation*~~	~~*Agriculture*~~	***River, stream or wetland***	~~*Nature conservation area*~~
Mountain, koppie or ridge *Hillside south & west of site*	~~*Museum*~~	~~*Historical building*~~	~~*Graveyard*~~	~~*Archaeological site*~~
Other land uses (describe):				

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

The Great Brak Police Station is located on Erf 4787 (*previously Portion 2 of Farm 135 Klipfontein*), directly west of the development site. A 20m shared 'right-of-way' servitude must be maintained at the entrance to the development site to allow continued access to the side entrance of the Great Brak Police Station.

Low density residential housing is located on top of hillside, above / south & south-west of site. Medium density residential housing located on floodplain directly west of site. Erf 441, directly south-west of the site is used as an old-age / frail-care facility.

Long Street (MR348) aligns directly adjacent to the northern property boundary, with the Great Brak River Estuary located beyond Long Street to the north. The N2 Highway, and associated off-ramp into Great Brak River, aligns along the property eastern boundary, with the Great Brak TOTAL Filling Station and De Dekke / Spar complex located beyond to the north-east. The Eureka Park and Suiderkruis residential suburbs are located further to the east and north-east, with the coastline beyond.

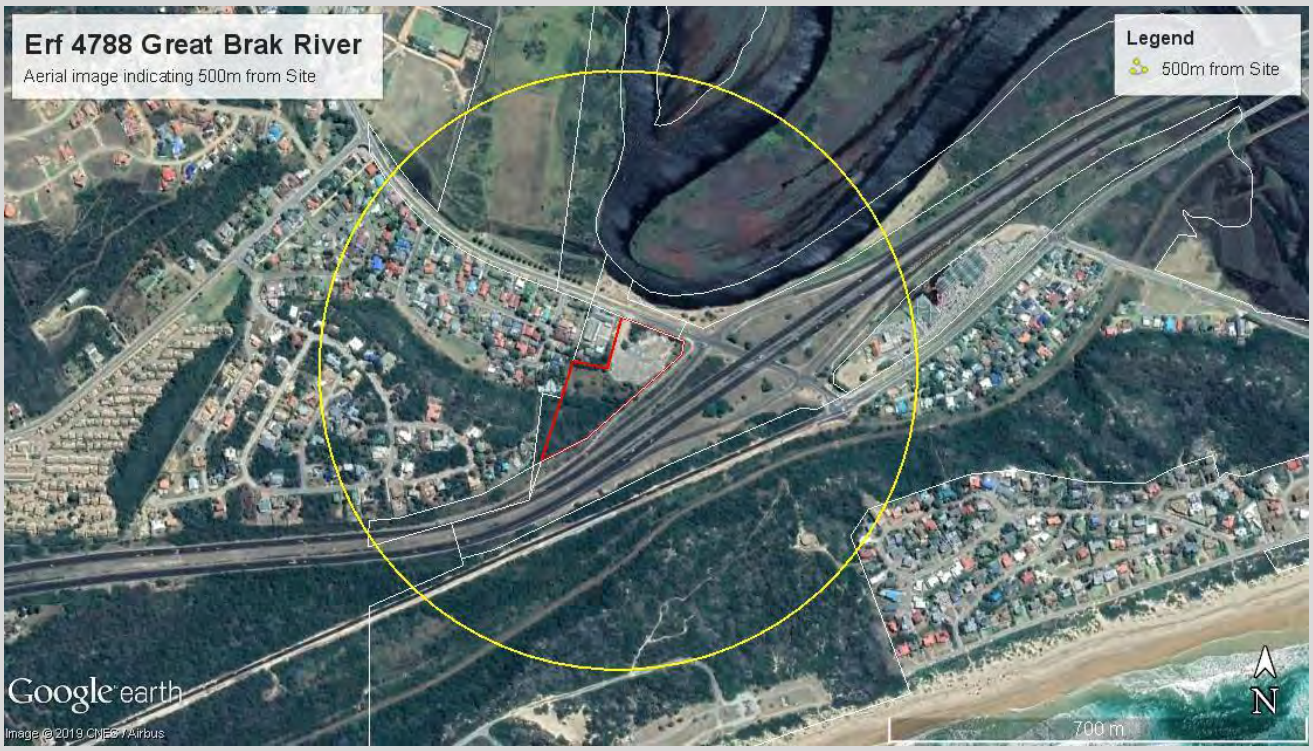

Figure 26: Aerial image indicating landuses with 500m radius of site (red polygon)(Courtesy Google Earth Pro, 2019).

4. SOCIO-ECONOMIC ASPECTS

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

Drawn from the Socio-Economic Impact Assessment Report (Urban Econ, 2019), attached as Annexure G7:

Great Brak River is situated in **Ward 14 of the Mossel Bay Local Municipality** and includes the suburbs of Friemersheim, Wolwedans, Greenhaven, Ruiterbos and the surrounding rural areas. The Mossel Bay Local Municipality Integrated Development Plan (IDP, 2018/2019: p.111) states the development **needs of the community in Ward 14 include aspects such as job creation, skills development, formalisation of informal traders**, etc. Aspects that could be related and motivated to the development of the proposed filling station include the increase in all of the abovementioned community needs.

Although no future development plans are finalised for the area, the Mossel Bay Local Municipality has set out a **precinct plan (2010)** that identified various areas along Long Street and in the Great Brak River CBD for upgrade and development. The image below illustrates the development strategy / areas planned for Great Brak River. The green stars on the map were identified by the Mossel Bay Local Municipality as important nodes in Great Brak River. The red area illustrates the small business precinct and the orange area illustrates the development of a heritage precinct. Both the red and orange areas are based within the planned directional growth of Great Brak River. The heritage precinct will include the central part of the town on both sides of the bridge as well as the historic cottages along Amy Searle and Long streets. The heritage precinct should be upgraded and promoted as a tourist attraction. The blue area identified as the CBD precinct refers to the formal establishment of the Great Brak River CBD in order to become an important and functional business node in the area. The dark blue star indicates the proposed Great Brak Filling Station site.

Figure 27: Great Brak Precinct Plan (2010).
Source: Mossel Bay Developmental Framework, 2017.

Market Area Delineation: also referred to as the source market or area of influence, the market area can be defined as the geographical area from where most potential customers will be drawn. Determining the market area is a multifaceted process that takes into consideration the effect of interaction between a series of aspects such as: Residential concentration; Composition of the population; Household Income; Proximity and travelling time; and Accessibility and movement patterns.
The proximity of the nearest other Filling Stations are also taken into account:

- The Great Brak TOTAL garage, located directly to the north-east of the site on the opposite side of the N2 highway; and
- The Little Brak TOTAL garage, located some 7km away, direction Mossel Bay.

Population & Density Profile: In 2018, the study area had a population of 20 078, and 6 978 households, with an average household size of 3. There has been continual growth within the study area with a **population and household compound annual growth rate of 4.23% and 5.11%** respectively. *This growth could result in the demand for the filling station (fuel) as an anticipated growth in motorists would result. Furthermore, a demand for auxiliary facilities that provide convenience and recreation.*

Age Profile of a population provides valuable insight into the composition of the **market population** and will help establish the **Potential Economically Active population (PEA)**. The PEA refers to the population that falls within the working age group (aged between 15 and 64). It does not mean that this entire portion of the population is prepared, willing or able to be employed. Within the study area, approximately 18.7% fall within the age group of 0 – 14, while 62.9% fall within the age group of 15 – 64; and 18.4% fall within the age group of 65+.

*The high proportion of the PEA in the study area could indicate that there is an **above average labour force**, which could be utilised by the proposed development. Furthermore, there is potentially a large number of persons who own private vehicles for commuting to and from their place of work whom would utilise the proposed filling station, as well as convenience store. Additionally, the high proportion of the population younger than 24 (29.8%) indicates a large labour force which will potentially own private vehicles to commute thus increasing the number of vehicles within the local area in the near future and whom would potentially utilise the proposed filling station.*

Employment Profile is an important indicator of human development, but also of the **level of disposable income and subsequently the expenditure capacity** of the residing population. The employment rate refers to those economically active people who are unemployed and looking for work, as well as persons who are unemployed and not looking for work, but would accept work if it was offered to them. This category also includes the not economically active population, which are not working, but are homemakers, scholars/full-time students, pensioners, disabled people and people not wishing to work. Within the study area approximately **32.3% of the population is employed**, **2.3% is unemployed** and **65.4% is not economically active.** Employment is the primary means by which individuals who are of working age may earn an income that will enable them to provide for their basic needs and improve their standard of living. It is important to note that the study area has an **unemployment rate of 7%,** which although low, still highlights a **demand for employment opportunities**. However, considering the low unemployment rate in the study area, there is a higher likelihood that the employment opportunities would benefit and be sourced from the broader area, such as Mossel Bay, Hartenbos, George, etc.

Construction of the proposed filling station and additional facilities would result in direct job creation opportunities related to the construction of the development and indirect job creation through expenditure on sectors supplying goods and services. While the operation of the proposed development would result in employment opportunities being created due to the operational expenditure. The provision of employment opportunities during both the construction and operation of the proposed development would improve the income levels of the employees thus, in turn, improving on their standard of living. An example of employment that would be required for the proposed development would be construction workers, maintenance staff, waiters and chefs, fuel pump attendees, managers, etc. The high employment rate in the study area suggests a large number of residents having disposable income and therefore increasing the number of residents owning a private vehicle to commute to their place of work and back on a daily basis, thus highlighting the potential demand for fuel supply.

Skills Profile: The skills level of the labour force has an impact on the level of income earned (i.e. the higher the skills level the higher the annual income that could be earned). Approximately **32.9% of the population in the Mossel Bay Local Municipality is skilled, with 67.1%, of the population being semi and low skilled**. A population which is skilled can improve their income. There is a high percentage of the population with low skills and a population with low skills can struggle to improve their income and therefore it would be important to implement skills development programmes and job creation in higher skilled occupations.

The skills profile indicates that local labour is limited to low-semi- and unskilled, as well as skilled workers. Thus, the proposed development should utilise semi- and unskilled workers from the area to alleviate unemployment. Furthermore, knowledge sharing and, on the job-training should be viewed as a prerequisite, where feasible, for all service contractors/service providers working on the development and employing local labour. An important aspect of the proposed development lies in the proposed craft and skills development centre, as it would provide the means to upskill the low to semi-skilled individuals whom reside in the local area, which in turn would assist in improving their levels of household income and standard of living.

Household Income: Most households in the area are low income earners; with 37.5% of the population in the study area being low income earners; this implies that approximately 62.5% can pay for basic services such as water, electricity and sanitation. The low levels of household income in the study area indicates a **need for job opportunities, as well as education and training programmes** (to obtain better skills for better job opportunities).

The proposed development through the provision of employment opportunities would assist in the improvement of household income, which in turn would assist in improving the standard of living within the affected households. Furthermore, a large number of high-income earners is a positive indication, as more affluent households tend to own private vehicles and subsequently utilise more fuel. A high percentage of low-income earners suggests that public transport which mostly consists

of mini-bus taxis, are the main mode of transport, which in turn leads to a greater fuel consumption by the public transport sector.

Household Expenditure: The household expenditure profile describes the total amount of money that a household spends on durable goods, semi-durable goods, non-durable goods, and services. Approximately half of the annual household expenditure is attributed to other services (50.8%), such as rent and medical attention, followed by non-durable goods (38.3%), which includes food, beverages, energy and petroleum. A further 5.3% is spent on durable goods such as furniture, housing and household items and 5.6% on semi-durable goods such as clothing and shoes respectively.

A large percentage of households spend their income on non-durable goods (38.3%), which reflects positively on the proposed station development, since the majority of these goods are available at a filling station such as fuel and convenience goods.

Car Ownership: Car ownership is one of many components that will drive fuel demand in the area. 64.7% of households in the study area own at least one car, while 35.3% of households in the study area do not own a car.

The majority of the population own at least one car which is beneficial for the proposed filling station as car owners will constantly have a reliance on fuel, thus creating a constant demand which could be supplied by the development. The provision of a convenience store, restaurant and recreational park to people utilising the filling station provides an aspect of convenience which is sought after by customers.

Local Economic Overview: In the local economic profile, the following topics will be analysed and presented; the GVA (Gross Value Added) in the Western Cape; assessment of economic growth in the Eden District Municipality and the Mossel Bay Local Municipality; and leading industries:

Economic Growth: The economy in the **Eden District Municipality and the Mossel Bay Local Municipality had an average GVA growth rate of 2.1 % and 2.4%**, respectively, between 2007 and 2017. The decline in 2009 is predominantly due to the economic recession, which negatively impacted the demand for South Africa's goods and services and resulted in a drastic decrease in export earnings and domestic consumption. This illustrates that the economy is highly sensitive to the changes in the global and national economic situation. The economic situation started to improve in 2010, however, in the past few years, certain economic changes have affected the economic outlook across all countries and regions globally. These changes include the slowdown and rebalancing in China, the further decline in commodity prices, i.e. crude oil, with sizable redistributive consequences across sectors and countries, a related slowdown in investment and trade, and declining capital flows to emerging market and developing economies. In addition, the prolonged drought in South Africa, which together with inflation, is having a negative impact on the economy.

The discovery of gas by Total off the southern coast, near Mossel Bay would have major positive consequences on the energy sector within South Africa (Times Live, 2019). Not only would the discovery contribute to the national and local GDP, but also assist in improving employment and income generation. This in turn would assist in the development of supporting industries of the oil and gas industry. The exploitation of the gas would assist the economy in terms of achieving economic development goals, which aligns with key policy objectives of national and local government.

The proposed development will contribute to both local and national GVA during the construction and operation phase of the development. Contribution to the GVA during the construction phase is a result of investment spent in the country; while contribution during the operational phase would result from operational expenditure. The proposed developments contribution to the GVA would encourage employment through multiplier business stimulation. Employment opportunities provided would assist with improving the level of household income in the area.

Leading Industries: The main contributing economic sectors in Eden District and Mossel Bay Local Municipality are:

- Finance, insurance, real estate and business services (25.2% Eden District and 28.2% Mossel Bay Local Municipality)
- Wholesale and retail trade, catering and accommodation (18.2% Eden District and 17.4% Mossel Bay Local Municipality)
- Manufacturing (14.2% Eden District and 14.5% Mossel Bay Local Municipality);
- Transport, storage and communication (10.1% Eden District and 10.1% Mossel Bay Local Municipality).

The proposed development through its Capital and Operational expenditure, with further contribute to sectors such as manufacturing, real estate and business services, storage and communication, etc. Thus, further enhancing the local and regional economy.

Tourism: Great Brak River is situated along Garden Route which stretches from Mossel Bay to Storms River along the N2; with towns such as Mossel Bay, George, Knysna, Oudtshoorn, Plettenberg Bay and Natures Valley. The Garden Route is a popular tourism destination, which attracts local and international visitors on a yearly basis. The Wesgro Cape Garden Route and Klein Karoo Annual 2016 Report[1] highlighted the following trends. The Cape Garden Route and Klein Karoo received 45.6% overseas visitors and 53.2% of domestic visitors in 2016, with markets such as United Kingdom and Germany ranked as the top two markets. The top domestic visitors to the Cape Garden Route and Klein Karoo was led by the Western Cape, followed by Gauteng and the Eastern Cape. In terms of transport, own motor vehicle and rented car were the main modes of transport utilised. The main motivation for travel to the Cape Garden Route and Klein Karoo was holiday and leisure with the top activities being: Scenic drives, Gourmet restaurants, Outdoor activities, Culture/ heritage experiences, Craft/ food markets.

In terms of seasonality, the Garden Route is at its busiest in December/ January, and its summer months between November and April. However, the whale season attracts international visitors between July and September, where they visit Hermanus and then travel further along towards the Garden Route. There are, however, events that attract tourism outside of the busy months, such as the Knysna Oyster Festival, Wilderness Art Festival, Wilderness Festival, Garden Route Walking Festival, Wild Oats Community Farmers Market, etc. The town of Great Brak River offers scenic routes, beaches lagoons, with the river that divides the village providing wooden banks for bird watching (Great Brak River, 2019). The area is further identified as having an Art Route, Cycling and Hiking Routes, Fragrance Route and a Historic Route. Furthermore, the local community hosts a range cultural, musical and art activities. There are shops, eateries, and a range of activities within the area such as picnicking, walking, canoeing, surfing, swimming, etc.

The Great Brak area has limited tourism offering in terms of attracting tourists, and there is no tourism offering such as the recreational and picnic area, craft and skills development centre within the area. The proposed development has the capability through its intended land uses (restaurant, recreation and picnic area, craft and skills development centre) to capture on the constant flow of tourists along the N2 but also contribute to the local tourism offering. The aim of the proposed development is to establish itself as a landmark on the N2, which is not only safe, but also pet and child friendly, as a family orientated destination. The amphitheatre will provide a platform for local artists, musicians and educators to show-case their talents and entertain visitors. While the Community Craft & Skills Development Centre will provide a space for the local community to showcase and sell their wares, while sharing and gaining new skills. The proposed maintenance and rehabilitation of the degraded wetland and remnant vegetation will create a safe, healthy environment for families and travellers to enjoy. There will be raised wooden walkways that will ensure that visitors can move freely without disturbing the local ecology. The importance

[1] Trends are based off voluntary surveys placed in local tourism offices and is not representative of the total tourism industry of the region.

of the proposed development lies in its ability to contribute to one of the strategic objectives of the Mossel Bay Local Municipality 2018/2019 Integrated Development Plan which is to "facilitate economic and tourism development to the benefit of the town and all its residents". The upliftment of local tourism will not only benefit local businesses but also provide the means of employment creation which will in turn improve living standards as people can consume higher levels of goods and services.

Crime levels: Great Brak River experiences low levels of crime, with the main criminal activity in the town being theft from motor vehicles. The coastal areas experience household theft, but generally during the months of December, when the vacation homes in the area are in use[2]. It was further indicated that no crime has been experienced at filling stations in the area, with police having to visit / fill up every 12 hours at filling stations, which in turn gets logged at the police station. This creates a visual presence which would deter potential criminal opportunists.

During construction, criminal elements may be attracted by the construction activity and steal bricks, pipes, etc., to either use or sell and scrap yards. During the operation of the proposed development, increased onsite activity could lead to house break-ins, theft from vehicles, etc. Any crime that may result from the proposed development may be lower than the surrounding crime levels due to the provision of onsite security at the development, as well as the Great Brak Police Station directly adjacent to the site. Whilst this may be mitigated by onsite security, criminal elements attracted by the proposed development may still target surrounding residential areas. It was indicated by the Great Brak SAPS that in their experience, they haven't noticed any spikes in crime around the time of previous developments.

Surrounding Property Values: Properties within Great Brak River are fairly affordable with prices ranging between R1.5 million and R2.5 million, with the area being sought after due to its central location and its easy living. The property market at the moment is quiet, with the main houses on the market being vacation homes that require upliftment. It was indicated by Pam Golding in Great Brak River, that many of houses along Long Street have commercial rights and likely to be converted into business premises, due to the limited space for development in the town of Great Brak River. It was further reiterated by De Kaap Eiedondomme that it is likely that the proposed development would add value to the area and would fit in with the surrounding commercial businesses. It was also indicated that property values in the area (residential and commercial) have improved rather than negatively influenced with the expansion and upliftment occurring within Great Brak River. Additionally, along with the proposed development, further investment is likely to occur within Great Brak as a result, which in turn would benefit the whole community.

The proposed development through its intended land uses has the capability to improve the surrounding property values through the enhancement and investment in the local area. The provision of the tourism offerings has the capability to create a destination place which in turn has the capability to make the area more attractive.

5. HISTORICAL AND CULTURAL ASPECTS

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

Section 38 of the NHRA states the following:
"38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-
(a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
(b) the construction of a bridge or similar structure exceeding 50m in length;
(c) any development or other activity which will change the character of a site-

[2] Vacation homes which are being utilised have cellphones, laptops, etc, which can be stolen.

(i) exceeding 5 000m² in extent; or
(ii) involving three or more existing erven or subdivisions thereof; or
(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000m² in extent; or
(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

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

(b) The impact on any national estate referred to in section 3(2), excluding the national estate contemplated in section 3(2)(i)(vi) and (vii), of the NHRA, must also be investigated, assessed and evaluated. Section 3(2) states the following:
"3(2) Without limiting the generality of subsection (1), the national estate may include—
(a) places, buildings, structures and equipment of cultural significance;
(b) places to which oral traditions are attached or which are associated with living heritage;
(c) historical settlements and townscapes;
(d) landscapes and natural features of cultural significance;
(e) geological sites of scientific or cultural importance;
(f) archaeological and palaeontological sites;
(g) graves and burial grounds, including—
(i) ancestral graves;
(ii) royal graves and graves of traditional leaders;
(iii) graves of victims of conflict;
(iv) graves of individuals designated by the Minister by notice in the Gazette;
(v) historical graves and cemeteries; and
(vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
(h) sites of significance relating to the history of slavery in South Africa;
(i) movable objects, including—
(i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;
(ii) objects to which oral traditions are attached or which are associated with living heritage;
(iii) ethnographic art and objects;
(iv) military objects;
(v) objects of decorative or fine art;
(vi) objects of scientific or technological interest; and
(vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996)".

Is Section 38 of the NHRA applicable to the proposed development?	***YES***	~~*NO*~~	~~*UNCERTAIN*~~
If YES or UNCERTAIN, explain:	The development is likely to exceed 5000m² in size and change the character of the existing disturbed, vacant site. No significant buildings, ruins, grave sites or any other heritage-related activities and objects are evident within the immediate landscape.		
Will the development impact on any national estate referred to in Section 3(2) of the NHRA?	~~*YES*~~	***NO***	~~*UNCERTAIN*~~
If YES or UNCERTAIN, explain:	----		
Will any building or structure older than 60 years be affected in any way?	~~*YES*~~	***NO***	~~*UNCERTAIN*~~
If YES or UNCERTAIN, explain:	----		
Are there any signs of culturally or historically significant elements, as defined in section 2 of the NHRA, including Archaeological or paleontological sites, on or close (within 20m) to the site?	~~*YES*~~	***NO***	~~*UNCERTAIN*~~
If YES or UNCERTAIN, explain:	----		

Note: *If uncertain, the Department may request that specialist input be provided **and** Heritage Western Cape must provide comment on this aspect of the proposal. (Please note that a copy of the comments obtained from the Heritage Resources Authority must be appended to this report as Appendix E1).*

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

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

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	***ADMINISTERING AUTHORITY and how it is relevant to this application***	***TYPE Permit/license/authorisation/comment / relevant consideration*** *(e.g. rezoning or consent use, building plan approval, Water Use License and/or General Authorisation, License in terms of the SAHRA and CARA, coastal discharge permit, etc.)*	***DATE*** *(if already obtained)**:***
National Environmental Management Act (Act 107 of 1998, as amended)	DEA&DP	**Environmental Authorisation**	*Pending*
National Environmental Management: Biodiversity Act (Act 10 of 2004)	DEA&DP	Environmental Authorisation & Removal of invasive vegetation	*Pending*
Section 38 of National Heritage Resources Act (Act 25 of 1999)	Heritage Western Cape (HWC)	**Heritage Approval / Record of Decision**	*Received 07 Sept.2018*
Section 21c, i & e of the National Water Act (Act 36 of 1998)	Breede Gouritz Catchment Management Agency (BGCMA)	**General Authorisation** for rehabilitation of degraded wetland & stormwater channel & use of treated effluent of irrigation.	*Parallel to DEA&DP decision-making*
National Forest Act (Act 84 of 1998)	Department of Agriculture, Forestry & Fisheries (DAFF)	**Forestry Licence** for possible trimming or removal of protected trees	*To be submitted should EA be issued*
Section 15(2) (a) of the Mossel Bay Municipality: Land Use Planning By-Law, 2015	Mossel Bay Municipality	**Re-Zoning & Land Use Planning Approvals**	*Awaiting EA*
Section 15(2) (f) of the Mossel Bay Municipality: Land Use Planning By-Law, 2015	Mossel Bay Municipality	Removal of condition of Title Deed Restriction	*Awaiting EA*
Western Cape Provincial Spatial Development Framework (PSDF)(2014)	DEA&DP	Environmental Authorisation & Land Use Planning Approval	*Pending*
Mossel Bay Municipal Spatial Development Framework (2017)	Mossel Bay Municipality	Land Use Planning Approval	*Pending post EA*
Draft Heritage Policy for Mossel Bay (2001)	Mossel Bay Municipality & Heritage Western Cape	Land Use Planning Approval & HWC Record of Decision	*Pending Received*
Mossel Bay Integrated Development Plan (2017 – 2022)	Mossel Bay Municipality	Land Use Planning Approval	*Pending post EA*
Mossel Bay Integrated Development Plan (2017 – 2022)	Mossel Bay Municipality	**Approval** from Municipality for service infrastructure connections &/ wayleaves.	*Part of EIA & post EA.*
Provincial Roads Ordinance	Department of Transport & Public Works (Provincial Roads Dept.)	**Approval** from Provincial Roads Department for upgrade to Long Street at access – dedicated left & right turning lanes.	*Part of EIA & post EA.*
Municipal By-laws	Mossel Bay Municipality	**Approval** from Municipality for upgrade to Long Street at	*Part of EIA & post EA.*

		access – dedicated left & right turning lanes.	
National Roads Act (Act 7 of 1998)	SANRAL	**Approval** from SANRAL for: Any structures within the 30m building line from N2 off-ramp; upgrade to Long Street at & positioning of advertising signs / pylons.	*Part of EIA & post EA.*
Petroleum Products Amendment Act, 2003 (Act No 58, 2003)	Department of Minerals & Energy	**Fuel Retails Licence**	*Part of EIA & post EA.*
Municipal regulations	Mossel Bay Municipality	**Building Plan Approval**	*Part of EIA & post EA.*

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

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	***Describe how the proposed development complies with and responds:***
National Environmental Management Act (NEMA, Act 107 of 1998, as amended)	Triggered Listed Activities: Storage and handling of more than 30m³ & 80m³ of a dangerous good (fuel) within 200m of an estuary, within the estuarine functional zone & 100m from a watercourse; construction activities (moving more than 5m³ of material) within 100m of the highwater mark of an estuary, as well as clearance of more than 300m² indigenous vegetation within an Endangered Ecosystem, a CBA & 100m of the highwater mark of an estuary / estuarine functional zone; require Environmental Authorisation and the need for an Environmental Impact Assessment (EIA).
<u>Compliance / Response:</u> *Remnant indigenous vegetation, as well as the stormwater drainage channel and degraded wetland, is to be retained and rehabilitated / restored as far as possible, as development components are to be strategically placed on existing disturbed areas.* *Potential contamination of surface & ground water resources will be prevented, detected and remedied via implementation a range of avoidance and mitigation measures (in the design, construction & operation) in compliance with the Environmental Management Programme (EMPr) and SANS 10089-3 (2010). The potential for groundwater contamination will be addressed through placing the underground fuel tanks above the 1:100 year floodline of the estuary and in a watertight concrete compartment. Stormwater run-off from the re-fuelling and truck/fuel delivery areas will be intercepted and directed into catch-pits, oil-separators and sumps, before being directed to the on-site sewage treatment package system for treatment. Four sampling wells will be placed around the periphery of the underground fuel tank area, as well as one monitoring borehole to be established between the filling station and estuary, to allow be regular sampling of the groundwater resources. A conservative design approach has been taken for the on-site wastewater treatment package plant to allow for any future increase in expected demand. This plant consists of three treatment systems (anaerobic, aerobic & sterilisation) to ensure final effluent is free of pathogens, conforming to SAB and exceeding DWA general standards. The entire system is designed to be installed above- or below-ground as all components are sealed units i.e. surface run-off or groundwater cannot enter and wastewater cannot exit the system.* *Some of the EMPr filling station operational measures will include:* • *Emergency fuel / oil Spill-kits will be strategically placed throughout the forecourt area & be marked with the contact details of spill professionals on-call to deal with large / emergency fuel / oil spills. All forecourt staff will be trained to manage / clean-up small fuel / oil spill with on-site Spill-kits.* • *Underground storage tanks & the delivery tankers will be fitted with emergency cut-off switches.* • *All Fuel dispensing and deliveries will adhere to relevant Health & Safety and Environmental protocols. Etc.*	
National Environmental Management:	The development property falls within both Aquatic & Terrestrial Critical Biodiversity Areas (CBA); Ecological Support Area (ESA - Restore) and a

Biodiversity Act (NEM:BA, Act 10 of 2004)	Threatened Ecosystem listed in terms of NEM:BA, therefore Environmental Authorisation is required. In addition, several listed Alien Invasive Plant Species occur on the property which will require control.
Compliance / Response: Remnant indigenous vegetation, as well as the degraded wetland, is to be retained and rehabilitated / restored as far as possible, as development components are to be strategically placed on existing disturbed areas. All alien invasive vegetation is to be removed and controlled into the future. Only locally occurring, indigenous vegetation is to be planted as part of the rehabilitation and landscaping efforts.	
National Water Act (NWA, Act 36 of 1998)	The NWA places restrictions on development adjacent to water courses, which includes estuaries. This Act requires that **authorisation be obtained for any alterations** to the bed, banks, course or characteristics of a water course (which includes changes in land use, vegetation cover, topography, soil, water quantity & quality etc.) or the **adjacent riparian habitat** (defined as any flooded area adjacent to the river channel) from the Department of Water & Sanitation (DWS). The **riparian habitat is considered to include everything within the 1:100-year flood line** of a water course.
Compliance / Response: An application for General Authorisation has been submitted to the BGCMA to water uses associated with the rehabilitation of the degraded wetland and stormwater drainage channels, as well as the use of treated effluent for fire-fighting and irrigation purposes.	
Integrated Coastal Management Act (ICM Act 24 of 2008)	The ICMA provides for the establishment of a coastal management lines, designed to protect the **Coastal Protection Zone (CPZ)**: In the case of the Great Brak River estuary, the land surrounding the estuary is mostly zoned for urban development, and thus a default CPZ of 100m applies. However, it is recommended that in the case of the Great Brak River estuary, where existing development has already encroached significantly into the **Estuarine Functional Zone (EFZ)** where a high potential flood risk exists, a Coastal Management Line (CML) be established at the 5m contour. Any future development seawards of a CML should be subject to an Environmental Impact Assessment (EIA) and would have to be compatible with the vision and objectives defined within the local Great Brak Estuary Management Plan (2018).
Compliance / Response: Although the entire development site is located below the 5m contour, it is effectively isolated from the rest of the EFZ and the Great Brak Estuary by Long Street and is thus ***no longer functionally linked with the estuary*** *(Clark, 2017). Estuarine biota are unlikely to be able to use this site and the risk of contaminated stormwater reaching the estuary from the site is minimal, except possibly during a major flood (would need to be large enough to cover Long Street) or if a fuel delivery tanker had an accident on the road before reaching the site. Pollution control measures will be implemented on the site to ensure that no contamination of surface stormwater or groundwater takes place. These measures will be defined in the Environmental Management Programme (EMPr) for implementation during design, construction & operation and the development.*	
Great Brak Estuary Management Plan (2018)	This plan recommends that a development setback line for the Great Brak River estuary be established that corresponds with the **estuarine functional zone** for this estuary (5m topographical contour) as defined in the 2011 National Biodiversity Assessment: Estuary Component (van Niekerk & Turpie 2012) in order to protect ecological functioning and integrity of the estuary, limit disturbance to estuarine flora and fauna, and will assist in retaining the wilderness character of the estuary and enhance its ecotourism appeal.
Compliance / Response: As above point. The preferred Filling Station development footprint has been strategically placed on the existing transformed area of the property, with the intention to retain, rehabilitate and enhance the vegetation and aquatic features on the remainder of the property. The design of the filling station, its associated community and recreational facilities and the proposed rehabilitation of the property, are likely to improve the sense of place / character of the property, enhancing its eco-tourism attractiveness.	
Section 38 of the National Heritage Resources Act (NHRA, Act 25 of 1999)	A Notice of Intent to Develop was submitted in terms of Section 38 of the NHRA – In their final comment, dated 7 Sept.2018, Heritage Western Cape concluded that there is no reason to believe that the

	proposed development will impact on heritage resources, thus **no further action is required.**
The EMPr will include measures for the identification and protection of any heritage, archaeological or palaeontological artefacts which may be un-earthed during construction.	
National Forest Act (NFA, Act 84 of 1998)	Several Milkwood & Yellowwood trees, protected in terms of the NFA, occur within the development site.
Compliance / Response: Although these trees, as well as several other indigenous species, are to be retained as far as possible, a Forestry Licence will be applied for any pruning or removal required allowing for egress / construction around these trees etc., should the Environmental Authorisation and Building Plan Approval be granted.	
National Roads Act (Act 7 of 1998)	Compliance with and/or approval from SANRAL for the following regulations / conditions: • Type (& content), size, height, position/s and orientation/s of advertising billboards or pylon structures visible from the N2 highway; • Erection of a 2m high wall or fence on development property boundary adjacent to national road reserve; • Placement of any structure within 30m building line measured from the boundary of the national road; • Stormwater management from the development area.
Compliance / Response: • An advertising pylon (footprint 6m²), will be positioned at the entrance to the development property off Long Street, to ensure that the proposed filling station is visible from Long Street and the N2 highway. Comment and approval will be sought for all road authorities in this regard: SANRAL, Provincial Roads and the Mossel Bay Local Municipality. • A palisade fenceline will be erected along the property boundary and N2 off-ramp road reserve. • Approval will be sought from SANRAL should the proposed rainwater storage tanks, sewerage treatment package plant, paving, or any other structures to intrude into the 30m building line. • All stormwater is to be contained / managed / used within the development site.	
Section 8 of the Mossel Bay Zoning Scheme Regulations (1984)	Rezoning of property from '**Authority / Utility Zone**' to '**Business Zone V**' to allow for the proposed fuelling station. The development proposal will **comply with all the prescribed development parameters**:
Compliance / Response: • *Building Lines: 10m from N2 Highway; 5m from street/'right-of-way'; 2m from side boundaries. No fuel pump may be erected where the base or island on which the pump stands is less than 3,5m from the nearest street boundary.* • *Registered Servitudes: 10m wide water pipe line along northern (Long Street) boundary & 20m wide 'Right of Way' servitude at entrance for the Police Station.* • *Floor factor: 0.5;* • *Coverage: at most 30%;* • *Height: At most two storeys;* • *Parking: at least one parking bay per 50m² of the total floor space; provided that the parking bays be clearly indicated for visitors.*	
Mossel Bay Spatial Development Framework (SDF, 2017)	Erf 4788 (previously Ptn. 4 (Ptn. Of Ptn. 3) of the Farm No. 135), Great Brak River is located within the urban edge.
National Tourism Strategy 2017 **Domestic Tourism Strategy 2012 - 2020**	The ***National Tourism Strategy 2017*** focuses on inclusive growth in the tourism sector which is based on domestic and international tourist market growth and expenditure increases. Some of the NTSS 2026 targets for tourism development and promotion include: • Increase direct contribution to GDP – R302 billion • Increase the number of direct jobs supported by the sector – 1 million • Increase capital investment – R148 billion The strategic pillars of the NTSS are as follows: • Effective marketing; • Facilitating ease of access; • The visitor experience;

	• Destination management practises; and • Broad-based benefits. The vision of the ***Domestic Tourism Strategy 2012 - 2020*** is to grow domestic tourism for a sustainable tourist economy. The Strategy aims to: • Increase domestic tourism expenditure; • Increase domestic tourism volume; • Enhance measures and efforts aimed at addressing seasonality and equitable geographical spread; • Enhance the level of the culture of tourism/ travel among South Africans. The Strategy also recognises the need to innovate current operations, attractions and offerings and introducing new products to the market in order to stimulate tourism expenditure and renew the interests of domestic tourists. National Government recognises the importance of the tourism sector through the creation of jobs and promoting economic growth.
Compliance / Response: The proposed filling station, with convenience store, restaurant, craft and skills development centre, as well as the outdoor picnic and recreational area, has the potential to: • *Attract tourists off the local area and the N2;* • *Attract new investment on a local level;* • *Increase tourism spend in the area; and* • *Create new employment.*	
Eden District Spatial Development Framework 2017	In the *Eden District Spatial Development Framework 2017* it was identified that the Eden District has a very high potential for growth as a strategic area within the Western Cape province regarding scenic value, economic performance and regional competitiveness. The fact that the Eden District can be regarded as a high potential area is useful in terms of the growth and expansion of an area, thus resulting in the likely increase in fuel consumption and demand, and the subsequent increased need for filling stations. The main regional challenge that was identified relates to the management of the growth and development of rural and urban environments to ensure the affordability, sustainability and provision for the needs of the community (South Africa, 2017, p. 13)
Compliance / Response: The proposed development will cater to the needs of the community especially in terms of employment opportunities, improved household income and convenience in terms of proximity and accessibility.	
Mossel Bay Local Municipality Integrated Plan (IDP)(2017 – 2022)	The IDP highlights the need for job creation and social services. This proposed development will result in the upgrading of a portion of Long Street, stormwater system and streetscape, as well as the creation of job opportunities for in this area. One of objectives in the IDP is "to facilitate economic and tourism development to the benefit of the town and residents". Some key focus areas in this objective lie in tourism and economic development.
Compliance / Response: The provision of the proposed restaurant, recreational and picnic area, craft and skills development centre will not only uplift local tourism, but also benefit local businesses and provide means of employment creation and skills enhancement, which will in turn improve living standards as people can consume higher levels of goods and services.	
Mossel Bay Spatial Development Framework (SDF) 2018	The SDF aims to achieve a sustainable land use pattern that conserves the environment, supports rural tourism and agricultural economic growth, and employment creation. Additionally, it seeks to promote inclusionary, efficient and urban growth that provides access to opportunity existing and future residents.
Compliance / Response: The proposed development will lead to increase in convenience to the local community and transient market (domestic and international travellers). The establishment of the proposed development will assist in creating employment opportunities, as well as promote economic growth in the local and regional area. Furthermore, the provision of the proposed restaurant, recreational and picnic area, craft and skills development centre will assist in	

enhancing and promoting local tourism while establishing a tourism landmark in Great Brak River.	
Spatial Planning and Land Use Management Act (SPLUMA, Act 16 of 2013)	The following key aspects are served / responded to by the filling station / recreational park / craft & skills development centre proposal:
Consistency with the Character of Surrounding Area: *The proposed development is located on the main economic corridor into the town of Great Brak River, Long Street, and ideally located for filling station. Much of the residential erven along Long Street have changed to mixed land use, with many accommodating businesses / offices. The filling station will thus be consistent with the established mixed land use character of the surrounding area and will* service both for the residents and businesses alike. Moreover, this proposed development compliments the tourist industry of the area as it will cater and attract tourist. ***Accessibility of the Area:*** *Located on Long Street (the main activity corridor of the Great Brak Rivier CBD) and directly adjacent to the N2 off-ramp into Great Brak, the proposed filling station has excellent accessibility, ideal for a filling station. The Traffic Impact Assessment concluded that given the considerable traffic to be attracted to the filling station, the existing entrance off Long Street should be upgraded to include dedicated left & right turning lanes*. The impact of the traffic attracted from the surrounding road network has little to no effect on the Level of Service (LOS) of the nearby intersections. No upgrades, other than the turning lanes at the access, is required for this development ***Urban Integration:*** *The integration of working and living environments is a strategic town planning principle that promotes sustainable development. As supported by the policies contained within the Provincial Spatial Development Framework, planning and development should address the separation, as assist the merger, of work place and residences in urban areas.* ***Brownfield Development:*** *Within the existing urban fabric of Great Brak River, it would constitute the development of an established erf. Brownfield development is considered preferable over Greenfield development as it re-uses urban developed land in a way that is more appropriate to current needs without the need for the development of virgin land. This can be more economical in terms of provision of services and is a more environmentally sound and efficient use of urban space. The development of brownfield sites within residential neighbourhoods are echoed through national spatial development policies as it constitutes as a more sustainable development option and mitigates the effect of Urban Sprawl.* ***No Impact on Existing Rights:*** *Given the existing mixed land use character of the area and the prevalence of several community orientated uses, it is the considered opinion that the proposed filling station development will not change the character of the area, nor the existing land use rights of any property owner in the area. The proposal will rather result in the upgrading of the residential area and a general upliftment of property values in the neighbourhood.* ***Low Visual Impact:*** *There is a significant height difference between the development site and the higher lying N2 highway and residential suburb to the south. The visual intrusion and change in the sense of place that will result from the development of the Filling Station and its associated recreational park, skills development centre and rehabilitated landscape, will be an improvement and have a positive effect. The village of Groot Brak will benefit from this development by gaining a visually attractive and useful amenity that also provides a visual statement at its main entrance.* ***Services Infrastructure:*** *Sufficient bulk services capacity exists for the proposed new development, however the development is to be partially self-sustainable in that it is to generate the bulk of its electricity needs through the installation of solar panels, the use of rainwater / stormwater / greywater for toilets and urinals and the treatment and re-use of waste water.*	
Western Cape Provincial Spatial Development Framework (PSDF)(2014)	The proposed development compliments the PSDF spatial goals that aim to take the Western Cape on a path towards: (i) Greater productivity, competitiveness and opportunities within the spatial economy; (ii) More inclusive development in the urban areas; (iii) Strengthening resilience and sustainable development. However it is important to note some of the key policies laid down by the draft PSDF have a bearing on the development proposal:
Policy E3: Revitalise and Strengthen Urban Space-Economies as the Engine of Growth: *Existing economic assets (e.g. CBD's, township centres, modal interchanges, vacant and under-utilised strategically located public land parcels, fishing harbours, public squares and markets, etc.) should be targeted to levers the regeneration and revitalisation of urban economies. Incentives should be put in place to attract economic activities close to dormitory residential areas, facilitate*	

brownfields development (e.g. mixed use development & densification in appropriate locations).
Policy S3: Ensure Compact, Balanced & Strategically Aligned Activities & Land Uses: *This policy reflects the main aim of the policy through targeting economic assists (e.g. modal Interchanges & underutilised strategically located land parcels) should be used as a lever to regenerate and revitalise urban settlements. Promoting functional integration and mix land use to increase liability of urban areas. Thus the policy specifies the importance to increase density of settlements and number of units in new housing projects; continue to deliver public investment to meet the needs in settlement developments; integrate packages of land, infrastructure and services as critical to promote densification and efficiency associated with agglomeration.*
Prioritise the identification of Integration Zones within the proposed urban, rural and coastal regions, where opportunities exist for public intervention to promote more inclusive, efficient and sustainable forms of urban development.
Policy S5: Ensure Sustainable, Integrated and Inclusive Housing Planning and Implementation: *The policy reflects the need to provide households with the residential environments, mobility and access to opportunities that support productive activities and reduce levels of exclusion from opportunity, increase residential densities of settlements and dwelling units in new projects that provide accommodation, prioritise investment in community facilities, public infrastructure and public space, rather than an exclusive focus on housing or top structures.*
It is important to note that the densification objective stated in this policy is to:
- achieve more economical provision of infrastructure;
- convenient public transport services;
- better support of public facilities.
Planning Implication: On a local level the proposed development can be regarded as urban integration and infill based on the mixture of land uses in close proximity to the surrounding area. The proposed development will contribute to the fuel service, convenience, and community needs. It is located within the urban edge of Great Brak River with the Mossel Bay Municipality and facilitates brownfield development which promotes densification and intensification of the Great Brak area. The proposed development is surrounded with a range of recreational, retail and social facilities, and business associated uses all within walking distance. It can therefore be regarded that the proposal is consistent with the policies and objectives as prescribed in the PSDF.

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

SECTION C: PUBLIC PARTICIPATION

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

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

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

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

State Department / Organ of State	***Date request was sent:***	***Date comment received:***	***Support / not in support***
Heritage Western Cape	Aug.2018	07 Sept.2018	***Support***
Department of Health	15 June 2017 10 April 2019	20 June 2017	***Support***
Department of Transport & Public Works	15 June 2017 10 April 2019	12 July 2017	***Support*** *Full comment pending*
SANRAL	15 June 2017 10 April 2019	----	*Pending*
CapeNature	15 June 2017 10 April 2019	----	*Pending*
Department of Agriculture, Forestry & Fisheries (DAFF)	15 June 2017 10 April 2019	----	*Pending*

Breede Gouritz Catchment Management Agency (BGCMA)	15 June 2017 10 April 2019	----	*Pending*
Garden Route District Municipality: Environmental Management	15 June 2017 10 April 2019	----	*Pending*
Mossel Bay Municipality: Planning	15 June 2017 10 April 2019	----	*Pending*
Mossel Bay Municipality: Technical Services	15 June 2017 10 April 2019	----	*Pending*
Mossel Bay Municipality: Environmental Management	15 June 2017 10 April 2019	----	*Pending*
Mossel Bay Municipality: Health	15 June 2017 10 April 2019	----	*Pending*
Mossel Bay Municipality: Roads	15 June 2017 10 April 2019	09 Nov.2018 27 Feb.2019	***Support***
Mossel Bay Municipality: Stormwater	15 June 2017 10 April 2019	09 Nov.2018	***Support***
Mossel Bay Municipality: Legal Services	15 June 2017 10 April 2019	07 Feb.2018 Meeting	***Support***
Mossel Bay Municipality: Ward 14 Councillor	15 June 2017 10 April 2019	----	*Pending*
DEA&DP Coastal Management	15 June 2017 10 April 2019	----	*Pending*
DEA&DP Pollution Control	10 April 2019	----	*Pending*
Department of Energy	15 June 2017 10 April 2019	----	*Pending*

3. *Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated, or the reasons for not including them.*
*(The detailed outcomes of this process, including copies of the supporting documents and inputs must be included in a Comments and Response Report to be attached to the BAR (see note below) as **Appendix F**).*

Proximity to & impact on Great Brak River / Estuary	The site-specific floodline plan indicates that the bulk of the proposed Filling Station main building, truck refuelling area, underground fuel tanks and on-site waste-water treatment package plant, are to be located above the 1:100 year floodline of the Great Brak Estuary, with the forecourt area falling between the 1:100 & 1:50 floodlines. The forecourt platform, small portion of the main building and Craft & Skills Development Centre, are to be raised with infill material (G4 gravel) above the 1:100 floodline / 3.5m contour line (to 4m contour / above mean sea level, to accommodate climate change influence). The estuarine functional zone (EFZ), defined by the 5m topographical contour (as indicative of 5m above mean sea level), aligns along the base of the southern slope. Although the entire development site is located below the 5m contour, it is effectively isolated from the rest of the EFZ and the Great Brak Estuary by Long Street and is thus no longer functionally linked with the estuary. Estuarine biota are unlikely to be able to use this site and the risk of contaminated stormwater reaching the estuary from the site is minimal, except possibly during a major flood (would need to be large enough to cover Long Street) or if a fuel delivery tanker had an accident on the road before reaching the site.
Potential surface / ground water	Potential contamination of surface & ground water resources will be prevented, detected and remedied via implementation a range of

pollution / contamination	avoidance and mitigation measures (in the design, construction & operation) in compliance with the Environmental Management Programme (EMPr) and SANS 10089-3 (2010). The potential for groundwater contamination will be addressed through placing the underground fuel tanks above the 1:100 year floodline of the estuary and in a watertight concrete compartment. Stormwater run-off from the re-fuelling and truck/fuel delivery areas will be intercepted and directed into catch-pits, oil-separators and sumps, before being directed to the on-site sewage treatment package system for treatment. Four sampling wells are to be placed around the periphery of the underground fuel tank area, as well as one monitoring borehole to be established between the filling station and estuary, to allow be regular sampling of the groundwater resources. A conservative design approach has been taken for the on-site wastewater treatment package plant to allow for any future increase in expected demand. This plant consists of three treatment systems (anaerobic, aerobic & sterilisation) to ensure final effluent is free of pathogens, conforming to SAB and exceeding DWA general standards. The entire system is designed to be installed above- or below-ground as all components are sealed units i.e. surface run-off or groundwater cannot enter and wastewater cannot exit the system. Some of the EMPr filling station operational measures will include: • Emergency fuel / oil Spill-kits will be strategically placed throughout the forecourt area & be marked with the contact details of spill professionals on-call to deal with large / emergency fuel / oil spills. All forecourt staff will be trained to manage / clean-up small fuel / oil spill with on-site Spill-kits. • Underground storage tanks & the delivery tankers will be fitted with emergency cut-off switches. • All Fuel dispensing and deliveries will adhere to relevant Health & Safety and Environmental protocols. Etc.
Impact on views from southern hillside	The design of the Filling Station and any associated infrastructure is to implemented in compliance with the recommendations made by the Visual Specialist so as not be visually intrusive or obstructive. The indigenous vegetation on the slope will be retained and enhanced (through further landscaping) to serve as a visual screen. Filling Station building to be a thatch-roofed structure to align with natural surroundings. Majority of development (buildings & structures) to be restricted to existing transformed / disturbed platform on property (an existing eye-sore), while the remainder of the property is to rehabilitated and greened to enhance the sense of place and natural character of the area.
Viability / need / desirability of another filling station in Great Brak / Competition with existing filling station to impact on job security & livelihoods of their permanent employees	The TOTAL Filling Station is likely to be impacted in the short term; where short- to medium-term marginal fuel sale losses may occur as the proposed filling station draws some customers away from the TOTAL. It is envisioned that this overall negligible-to-low negative effect on Great Brak TOTAL would decrease over time as the area grows, new developments arise and transient traffic along the N2 increases. Concerns related to employment security of the TOTAL permanent staff, as an indirect result of the potential loss of fuel sales, although founded, should be considered in terms of the following: • The proposed development is likely to attract mainly local residents on the Great Brak side of the N2, as well as transient traffic from the N2 traveling direction Mossel Bay towards George, to a lesser degree. • As the TOTAL Great Brak & De Dekke complex is located on opposite side

	of the N2, it attracts mainly transient traffic heading from George towards Mossel Bay i.e. a different traffic stream / customer source. • There was an average annual fuel sales growth of approximately 15.8% for the period between 2007 and 2017 for the Mossel Bay Magisterial District. This indicates that there is a need for additional filling stations in the area and any potential loss will likely be offset by this increasing demand for fuel. • Importance of N2 within the Garden Route economy indicates that there will be a constant flow of transient traffic through the area, and to both Filling Stations. In conclusion, there appears to be fuel demand which will cater for this potential competition between filling stations. Please note that the expanded/revised development proposal for the Great Brak Filling Station, now includes a recreational park, as well as a community craft & skills development centre i.e. aims to cater for a slightly different market than that which is currently provided by the De Dekke / TOTAL complex. Where the De Dekke / TOTAL complex provides for bulk convenience shopping (the SPAR), ladies bar etc., the proposed filling station's convenience store / quick-shop will only provide for a limited range of consumables items, mostly catering to the local Great Brak residents who would want to obtain fuel or basic convenience goods post-closing times of the bigger retail facilities within Great Brak, without having to cross under the N2 to visit the SPAR or THE TOTAL quick-shop. Most significantly, the proposed filling station intends to serve as community skills development hub (a need that has been identified as lacking in Great Brak & Mossel Bay areas), and an outlet for locally produced crafts and arts i.e. merchandise unique to the proposed Community Craft & Skills Development Centre. In addition, the proposed Recreational Park, with its outdoor pet- & child-friendly facilities and small amphitheatre, will provide a family- & community-orientated space which is needed in Great Brak River. These additional facilities will be unique, and are thus unlikely to compete with the existing facilities provided within the De Dekke / TOTAL complex. The abovementioned Socio-Economic study also confirmed that the proposed Great Brak Filling Station is **projected to exceed the monthly fuel pumping volume of 300 000 litres/month**, which is used as the industry standard / benchmark to determine the viability of establishing a new filling station.
Disturbance of Milkwood trees / Indigenous Vegetation -	All remnant indigenous vegetation found on the property is to be retained as far as possible. This includes the dense bush on the southern slope, the large Milkwood and Yellowwood trees at the entrance, as well as the shrubs and trees around the property boundaries and behind the Police Station. In fact, the preferred forecourt building footprint has been shifted backwards to ensure sufficient vehicle egress around the Milkwood 'islands' at the entrance. A Forestry Licence will be obtained from the Department of Agriculture, Forestry & Fisheries (DAFF) to prune / clean-up these trees. Further, all alien invasive vegetation will be removed and controlled into the future, and additional indigenous trees and gardens will be planted to serve as visual screens and noise barriers, as well as to beautify the proposed Recreational Park behind the Filling Station. The degraded

	wetland located at the base of the southern slope, will also be rehabilitated to manage stormwater, as well as serve as a natural water feature within the Recreational Park.
Land claim on the property, which was earmarked for development for land claimants / partnership with interested parties. The land claimants & historically disadvantaged must be consulted.	In their letter dated 01 Nov.2017, the Regional Land Claims Commission: Restitution confirmed that the land claimant and/or interested parties have opted for financial compensation, and thus, **the land claim on the property has been settled and withdrawn from the restitution process**. Therefore, any interdict (endorsement &/or encumbrance) registered against this property, related to restitution, is considered rescinded (overturned / cancelled / voided). With regards the claim that the municipal property has been earmarked for use / set aside for development by the historically disadvantaged community for youth & women empowerment, please note that the Mr Jaco Roux, of the Mossel Bay Municipality, has confirmed that land, by law, can only be allocated / earmarked for a particular use in the Spatial Development Framework (SDF) or sold / leased / allocated to any party via a Council Decision. The Mossel Bay SDF indicates that the property is question is designated for 'Authority / Utility' land use. Mr. Roux is not aware of any Council decisions other than the lease agreements and Re-zoning Application, undertaken with/by the current Applicant for the purposes of a Great Brak Filling Station. Through the development of the Craft & Skills Development Centre, amphitheatre etc., the developer in co-operation with local community upliftment organisations, provide a small factory/training space for local people to transfer skills, manufacture and sell their unique products e.g. jewellery, woodwork, textile/fabric printing, leather work, recycled furniture and décor etc. Products will also be distributed for sale from the Filling Station shop, as well as to Micaren Exel Filling Stations nationwide. It is believed that this centre, and the amphitheatre stage, will also serve as a tourist attraction where visitors can see local artisans in action, and experience the manufacturing and production process before purchasing the products at the factory outlet/retail area/showroom.

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

Mossel Bay Municipality	• The remainder of the **property must be rehabilitated** and made available to the public as a recreational / resting place. • The open, unlined **stormwater channels**: in Erf 451 west of the property, as well as the channel between the property northern boundary and Long Street, must be **shaped and lined with grass blocks (upgraded)**. • Measures and procedures for **pollution prevent and emergency clean-up** of spills must be included in the EMP.
CapeNature	A **Stormwater Management Plan** is required, informed by the consideration of all stormwater sources and recipients (*see Annexure E of Civil Engineering Report)*.
Dept.of Health	• Mossel Bay Municipality must provide all potable water to the development; • All refuse removal & disposal must be incorporated into the municipal waste stream; • No ground or surface water pollution allowed; • The owner/operator of the filling station must have an environmental management plan (EMP) in place to combat any pollution that might occur; • Any spillage or pollution must be cleaned immediately by the

	owner/operator and the environment rehabilitated; • The owner/operator of the filling station must inform this office and the Municipal Health Services of the Eden District Municipality (Mossel May office) of any pollution that may occur; • All tanks installed must be completely leak proof to prevent the pollution of the environment; • Monitoring wells / leak detectors must be installed to detect any possible leaks; • If a leak is detected the owner/operator must repair the leak without delay and rehabilitate the environment; • All possible steps must be taken to prevent overfilling of tanks and vehicles; • The necessary public ablution facilities must be provided, and these must be kept in a clean & hygienic state of all times; • The proposed convenience store must have a Certificate of Acceptability (COA) from the Eden District Municipal Health Services (Mossel Bay Office)

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

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

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

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

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

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

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

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

SECTION D: NEED AND DESIRABILITY

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

1. Is the development permitted in terms of the property's existing land use rights?	~~*YES*~~	***NO***	*Please explain*
Rezoning of property from '**Authority / Utility Zone**' to '**Business Zone V**' to allow for the proposed fuelling station.			
2. Will the development be in line with the following?			
*(a) Provincial Spatial Development Framework ("**PSDF**").*	***YES***	~~*NO*~~	*Please explain*
The proposed development compliments the PSDF spatial goals that aim to take the Western Cape on a path towards: (i) Greater productivity, competitiveness and opportunities within the spatial economy; (ii) More inclusive development in the urban areas; (iii) Strengthening resilience and sustainable development. However it is important to note some of the key policies laid down by the PSDF have a bearing on the development proposal: ***Policy E3: Revitalise and Strengthen Urban Space-Economies as the Engine of Growth:*** *Existing economic assets (e.g. CBD's, township centres, modal interchanges, vacant and under-utilised strategically located public land parcels, fishing harbours, public squares and markets, etc.) should be targeted to levers the regeneration and revitalisation of urban economies. Incentives should be put in place to attract economic activities close to dormitory residential areas, facilitate brownfields development (e.g. mixed use development & densification in appropriate locations).* ***Policy S3: Ensure Compact, Balanced & Strategically Aligned Activities & Land Uses:*** *This policy reflects the main aim of the policy through targeting economic assists (e.g. modal Interchanges & underutilised strategically located land parcels) should be used as a lever to regenerate and revitalise urban settlements. Promoting functional integration and mix land use to increase liability of urban areas. Thus the policy specifies the importance to increase density of settlements and number of units in new housing projects; continue to deliver public investment to meet the needs in settlement developments; integrate packages of land, infrastructure and services as critical to promote densification and efficiency associated with agglomeration.* *Prioritise the identification of Integration Zones within the proposed urban, rural and coastal regions, where opportunities exist for public intervention to promote more inclusive, efficient and sustainable forms of urban development.* ***Policy S5: Ensure Sustainable, Integrated and Inclusive Housing Planning and Implementation:*** *The policy reflects the need to provide households with the residential environments, mobility and access to opportunities that support productive activities and reduce levels of exclusion from opportunity, increase residential densities of settlements and dwelling units in new projects that provide accommodation, prioritise investment in community facilities, public infrastructure and public space, rather than an exclusive focus on housing or top structures.* *It is important to note that the densification objective stated in this policy is to:* *- achieve more economical provision of infrastructure;* *- convenient public transport services;* *- better support of public facilities.* *Planning Implication: On a local level the proposed development can be regarded as urban integration and infill based on the mixture of land uses in close proximity to the surrounding area. The proposed development will contribute to the fuel service, convenience, and community needs. It is located within the urban edge of Great Brak River with the Mossel Bay Municipality and facilitates brownfield development which promotes densification and intensification of the Great Brak area. The proposed development is surrounded with a range of recreational, retail and social facilities, and business associated uses all within walking distance. It can therefore be regarded that the proposal is consistent with the policies and objectives as prescribed in the PSDF* One of the objectives of the PSDF is the need to minimise the use / consumption of scarce			

environmental resources, such as water, fuel, building materials, mineral resource, electricity and land. To give this effect and to reduce the impacts of climate change development must integrate the use of energy and/or resource efficient technologies. Indeed, with consideration of the fact the Western Cape is a water stressed area, the need to implement water-saving technology and devices is critical.

The proposed Filling Station development proposal include several resource saving technologies"

- *The installation of a **50kW grid-connected solar PV system**, where electricity generated from the PV generator synchronizes and operates in parallel to the municipal grid.*
- *Only reliable, approved and **energy efficient light installations** will be used, i.e. compact fluorescent lights (CFL) and LEDs. Area lighting, low-level, low-glare luminaires will be used. No mercury vapour, high-pressure sodium or incandescent lights will be used. Lighting for access road, parking and open spaces will be controlled by day/night switches or timers etc.*
- *In an effort to minimize the water requirements of the proposed Great Brak Filling Station, the developers have decided to **utilise rainwater run-off** generated on its premises for selected uses such as irrigation, fire-fighting, flushing of urinals and toilets, hosing down of driveway paving, car wash facility etc.*
- *The sewage generated by the development will be treated via an **on-site waste-water package plant (Biomite)** and the **treated effluent used for irrigation and fire-fighting purposes**.*
- ***Stormwater will be managed on-site**: with run-off from the forecourt treated within the on-site waste-water package plant (after being filtered through oil & litter separators/traps/sumps); stormwater will be directed to degraded wetland for rehabilitation purposes and to existing and upgraded stormwater channel adjacent to proposed boundaries.*
- *The operations and maintenance strategies for the filling station will have strict requirements / conditions to **minimize the risks of fuel loss or spills**, which will be included in the EMPr.*

Measures should also be put in place to **minimise waste and wastage** during both construction and operational phases of the development.

The Filling Station development will have a site refuse management system will ensure the separate storage and collection service of glass, plastic and paper for recycling purposes. Refuse removal will be handled as per agreements with the Municipality and other recycling service providers and recorded in a Service Level Agreement/s.

*(b) Urban edge / edge of **built environment** for the area.*	***YES***	~~*NO*~~	*Please explain*
Development property located **within the urban edge** of the town of Great Brak River, directly adjacent to the main access routes: Long Street & the N2 highway.			
*(c) Integrated Development Plan and Spatial Development Framework of the Local Municipality (e.g., would the approval of this application compromise the integrity of the existing approved and credible municipal **IDP and SDF**?).*	***YES***	~~*NO*~~	*Please explain*

IDP: The IDP highlights the need for job creation and social services. This proposed development will result in the upgrading of a portion of Long Street, stormwater system and streetscape, as well as the creation of job opportunities for in this area. One of objectives in the IDP is "to facilitate economic and tourism development to the benefit of the town and residents". Some key focus areas in this objective lie in tourism and economic development. The provision of the proposed restaurant, recreational and picnic area, craft and skills development centre will not only uplift local tourism, but also benefit local businesses and provide means of employment creation and skills enhancement, which will in turn improve living standards as people can consume higher levels of goods and services.

SDF: The SDF aims to achieve a sustainable land use pattern that conserves the environment, supports rural tourism and agricultural economic growth, and employment creation. Additionally, it seeks to promote inclusionary, efficient and urban growth that provides access to opportunity existing and future residents. The proposed development will lead to increase in convenience to the local community and transient market (domestic and international travellers). The establishment of the proposed development will assist in creating employment opportunities, as well as promote economic growth in the local and regional area. Furthermore, the provision of the proposed restaurant, recreational and picnic area, craft and skills development centre, will assist in enhancing and promoting local tourism while establishing a tourism landmark in Great Brak River.

*(d) An Environmental Management Framework ("**EMF**") adopted by this Department. (e.g., Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)*	~~*YES*~~	~~*NO*~~	*Please explain*
Not relevant – no EMF exists for Mossel Bay area.			
*(e) Any **other** Plans (e.g., Integrated Waste Management Plan (for waste*	*YES*	*NO*	*Please explain*

management activities), etc.)).			

***Draft* Great Brak River Estuarine Management Plan (Jan., 2018).** The Mossel Bay Local Municipality is the Responsible Management Authority (RMA) for the development & implementation of the Great Brak EMP, as per the National Estuarine Management Protocol (NEMP, 2013). Key objectives for the Great Brak River estuary, include:

Biodiversity Conversation: Adequate protection is provided for **estuarine biota** to ensure persistence of populations, species, habitats and ecosystem processes. **Alien vegetation must be monitored and controlled**. Conservation of biodiversity will require **restoration and maintenance of ecosystem health** through the provision of environmental flows, as well as **rehabilitation of habitats** that have been damaged or modified, e.g. removal of invasive alien vegetation, and effective management of the mouth of the estuary and water quality in the estuary. Biodiversity conservation will also be facilitated if **public awareness is improved**, which in turn will require the provision of educational material and signage.

The proposed will not impact on estuarine biota as it is effectively cut-off from the EFZ by Long Street (Clark, 2017). All alien vegetation will be controlled and indigenous vegetation and wetland / drainage features will be retained, rehabilitated and enhanced with planting and landscaping effort and proper stormwater management. The entire development has been designed to be environmentally conscious and self-sustainable, providing a family and community orientated space. One of the purposes of the Amphitheatre and Recreational Park is to serve as an outdoor classroom for awareness-raising etc.

Improve Ecosystem Health: Freshwater resources and land in the Great Brak River catchment are effectively managed so as **not to compromise the quality or quantity of freshwater** reaching the estuary **or exacerbate flood risk** around the estuary. Freshwater flow reaching the estuary is increased to improve water quality and allow the mouth of the system to function more naturally.

There is no formal sewage reticulation within Great Brak and thus the poor water quality of the estuary can be attributed to leaking septic / conservancy tanks currently used its community. As an alternative to installing these conventional sewage storage facilities, the proposed development is to treat and recycle all wastewater generated on-site (for fire-fighting & irrigation use). All rainwater will be stored and used for flushing toilets / urinals. These water re-use technologies will be reduce of the quantity of potable water used by the development and will be designed to ensure no contamination of surface or groundwater resources.

Water Quality Management: Nutrient inputs to the estuary are reduced by reducing or **treating waste water inputs** to the estuary, catchment management and improving agricultural practices.

All wastewater generated by the proposed development will be treated within the on-site Biomite wastewater treatment package plant and the treated effluent re-used for fire-fighting and irrigation.

Mouth Management: Recognising that the natural flow regime of the Great Brak system has been modified to the extent that natural mouth functioning is not possible and that management is required to **mitigate flood risk**, the estuary mouth is managed in a manner to maintain natural ecosystem functioning, desirable aesthetic qualities of the estuary (particularly tidal flows around The Island) and the recreational value and potential of the estuary, especially during peak season.

The proposed development will potentially enhance the ecological functionality of the property, as well as the aesthetic quality of the area, through the proposed environmentally-sensitive design and technologies, as well as rehabilitation and landscaping efforts. In addition, the floor-levels of all buildings will be raised above the 1:100 year floodline of the estuary with infill material, as a flood-rick adverse measure. The underground fuel tanks, as well as the on-site waste-water treatment package plant will also be positioned above the 1:100 year floodline.

Visitor Management: Residents and visitors are aware of the importance and economic value of the estuary, are knowledgeable regarding regulations applicable to the system, and understand the rationale for management measures and interventions. Economic benefits are enhanced through the **promotion of ecotourism**. The estuary is managed to **maximize the value of ecosystem goods and services** delivered in the long term, ensuring an equitable balance among local, regional and national benefits.

The proposed development will implement rehabilitation, management and mitigation measures to ensure maintenance, and potentially improvement, of ecological functionality of property, while provide facilities to promote ecotourism and awareness-raising in the area.

Development Planning: A clear zonation plan is in place for the system to prevent further

encroachment of development onto the estuary and to preserve and **maintain the sense of place**, cultural heritage and conservation value of the system. Accessibility to the estuary for recreational users is improved through the implementation of facilities (e.g. parking area, boardwalks) and amenities. **Ecotourism growth** will require attractive visitor facilities that draw people to the area and will also depend on future developments being sensitive to biodiversity and the sense of place.

The development property is already high transformed and removed from the estuary by Long Street, and will thus not create any further encroachment or compromise of the estuary or its sense-of-place, cultural heritage or conservation value. The proposed upgrade to the entrance on Long Street will be contained within the existing road reserve and allow continued / unhindered egress along Long Street, into the proposed development site and the Police Station. The Craft & Skills Development Centre, as well as Recreational Park will promote eco-tourism growth and increase appeal of the area. The proposed rehabilitation & greening of the remainder of the property will likely enhance the existing 'sense of place' at the entrance to Great Brak River.

Research & Monitoring: **Monitoring and research into ecosystem health** and human utilisation of the estuary is undertaken to ensure adequate information is available to track changes in the health of the system and **to inform best management of the system**. All tiers of the National Estuary Monitoring Protocol must be implemented. Enhance monitoring, management and enforcement of all discharges of wastewater into the Great Brak estuary.

Strict pollution prevention and detection measures will be implemented to avoid contamination of surface and ground water resources. In addition, four monitoring wells will be installed around the underground fuel storage tanks, as well as a monitoring borehole on estuary-side of the forecourt, for regular monitoring of groundwater for hydro-carbons, as well as pathogens / pollutants associated with treated effluent (to be used for irrigation & fire-fighting). The proposed development will further upgrade and rehabilitate the on-site degraded wetland and stormwater management on and beyond the development site.

3. Is the land use (associated with the project being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (in other words, is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	***YES***	~~*NO*~~	*Please explain*

See above point 2(c).

4. Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur on the proposed site at this point in time?	***YES***	~~*NO*~~	*Please explain*

The site is currently used as a building / road material stockpile site, as well as an over-night / servicing yard for municipal refuse and sewerage trucks, passenger busses, and construction-related plant / heavy vehicles. It is thus an unsightly land-use located at the entrance to the Great Brak town, requiring urgent change in land-use, rehabilitation and upgrade. The Municipality are currently undertaking a rejuvenation project to clean-up and upgrade this entrance to the town: re-surfacing of Long Street and erection of a 'welcome emblem' beside Long Street. The proposed aesthetic design and eco-tourism strategy of the filling station development, as well as the proposed rehabilitation and upgrade interventions on and beyond the property, will align well with the Municipality's efforts.

The proposed upgrade / widening of Long Street (to install dedicated turning lanes into the property) will not impact on the proposed positioning of the abovementioned municipal emblem i.e. the emblem will be placed 5.5m from the current road edge, while the proposed upgrade of the entrance will entail a widening of approx. 3m at that point from the current road edge, tapering down on either side.

5. Does the community/area need the project and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g., development is a National Priority, but within a specific local context it could be inappropriate.)	***YES***	~~*NO*~~	*Please explain*

The Mossel Bay Municipal IDP states that the development **needs of the community in Ward 14 include aspects such as job creation, skills development, formalisation of informal traders**, etc. These aspects are related and motivated by the Filling Station development, as it is to create several job opportunities during both construction and operation, and create dedicated platforms and opportunities for members of the local Great Brak and greater Mossel Bay municipal community gain

and showcase their skills through the development of the Community Craft & Skills Development Centre and amphitheatre. These facilities aim to activate and support co-operation with local community upliftment organisations by provide a small factory/training space for local people to transfer skills, manufacture and sell their unique products e.g. jewellery, woodwork, textile/fabric printing, leather work, recycled furniture and décor etc., and showcase their skills. Products will also be distributed for sale from the Filling Station shop, as well as to Micaren Exel Filling Stations nationwide. It is believed that this centre, and the amphitheatre stage, will also serve as a tourist attraction where visitors can see local artisans in action, and experience the manufacturing and production process before purchasing the products at the factory outlet/retail area/showroom.

Indeed, during discussion with the Municipality regarding the options for the remainder of the property, they confirmed that **need to rehabilitate, upgrade and maintain the property**, as well as provide the local community and tourist alike with a **safe resting space**, which will be catered for in the creation of the proposed Recreational Park.

*6. Are the necessary **services** available together with adequate unallocated municipal capacity (at the time of application), or must additional capacity be created to cater for the project? (Confirmation by the relevant municipality in this regard must be attached to the BAR as **Appendix E**.)*	***YES***	***NO***	*Please explain*

See Annexure E4 for municipal confirmation of service availability and requirements.

NO – the town of Great Brak River currently has **no formal municipal sewage reticulation system**, attributing to the poor water quality of the estuary from leaking septic / conservancy tanks currently used by its community. As an alternative to installing these conventional sewage storage facilities, the proposed development is to treat and recycle all wastewater generated on-site (for fire-fighting & irrigation use). All rainwater will be stored and used for flushing toilets / urinals. These water re-use technologies will reduce of the quantity of potable water used by the development and will be designed to ensure no contamination of surface or groundwater resources. The Municipality, in their email dated 4 Oct.2017 confirmed the above, and their acceptance of the proposed Bio-mite sewage treatment package plant.

YES – In their email dated 4 Oct.2017, the Municipality confirmed availability of **potable water** connection located on Long Street to the development.

YES – In their email dated 6 Oct.2017, the Municipality confirmed have the capacity to **render waste collection and disposal services** and that this waste would be disposed of at the Regional Waste disposal facility.

YES – During Nov.2017 the Municipality confirmed that there is an **electrical connection** (Mini-substation), located just outside the western boundary fence of the Police Station erf which had the capacity at that time to supply electricity to the development. The developer would be required to install an approx. 70m underground cable from this mini-sub to the property at their own cost. Application will be made to Mossel Bay Municipality for this electrical supply point of 315 KVA/400 Volt, the Municipality will only reserve the available capacity for this project once the bulk services contribution is paid. The developer is to install a 50kW grid-connected solar PV system to augment this municipal electrical supply.

Figure 28: Position of electrical mini-sub., indicated by yellow circle, adjacent to the Police Station erf .

YES – Existing **stormwater management channels** are located to the west (between the Police Station erf & residential erven), to the north between the property and Long Street and east between the property and N2. The Municipality has confirmed that the channels to the west and south will need to be shaped and upgraded with grass-blocks by the developer.

YES – The **existing entrance / access off Long Street** is to be used and upgraded, with dedicated left– and right- turning lanes. This upgrade will entail the widening of Long Street at the entrance point with asphalt by ± 3.5m and ±170m long.

*7. Is this project provided for in the **infrastructure planning** of the municipality and if*	***YES***	~~*NO*~~	*Please explain*

*not, what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant municipality in this regard must be attached to the BAR as **Appendix E**.)*			
According to this SDF, the application area is earmarked as "**existing urban development**". The SDF further supports densification of the existing urban areas of Mossel Bay.			
*8. Is this project part of a **national programme** to address an issue of national concern or importance?*	~~YES~~	**NO**	*Please explain*
The development is private and not associated with a project of the state.			
9. Do location factors favour this land use (associated with the development proposal and associated listed activity(ies) applied for) at this place? (This relates to the contextualisation of the proposed land use on the proposed site within its broader context.)	**YES**	~~NO~~	*Please explain*
The proposed development site is located within a built-up area of Great Brak River, close to the town's CBD and on the busy main road into the town (Long Street). The site itself is already disturbed / transformed to a large extent and does not fulfil any significant ecological function.			
10. Will the development proposal or the land use associated with the development proposal applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?	**YES**	**NO**	*Please explain*
It is submitted that the preferred development proposal is likely to have an overall **positive impact** on both the natural and built environments, in that bulk of the development footprint (buildings, roads, paved areas, service infrastructure etc.) is to be restricted to the existing transformed area of the property, and that the remainder property is to rehabilitated and upgraded to create an eco-sensitive family- and pet- friendly recreational area and community-related ecotourism space that will benefit the natural environment and community alike. Potential **negative impacts**, associated with the pollution, as well as noise and visual impacts, will be mitigated through the implementation of specialist recommendations and the EMPr, as well as design measures and operational controls.			
11. Will the development impact on people's health and well-being (e.g., in terms of noise, odours, visual character and 'sense of place', etc.)?	**YES**	~~NO~~	*Please explain*
It is again submitted that the preferred development proposal is likely to have an overall **positive impact** on people's health and well-being: • The **'sense of place'** of the property is to be improved through the rehabilitation, re-vegetation and landscaping efforts; • Potential **noise impacts** will be minimal considering the existing noise levels created by Long Street and the N2 Highway. Potential noise impacts of the proposed amphitheatre and children's playground on the neighbouring residential erven will be mitigated through the creation of a vegetated berm to be installed along the western property boundary, which will be planted with a screen of large indigenous trees. Performances / presentations by musicians and educators will be controlled and restricted to day-time trading hours associated with the Restaurant. • Potential **visual impacts** will be mitigated by the development being positioned in the middle of the property, set-back from Long Street. In addition, the following recommendations provided by the Visual specialist will be implemented: - The existing vegetation within the site boundary and surrounding the site should be retained wherever practical and further indigenous trees and garden planted. - The colour of the proposed advertising pylon and filling station forecourt & main building should be dark mid grey of blue grey, while lighting should be downward and not upward (e.g. strips of neon tubing etc.). • Potential **odour impacts** associated with the fuel tanks will be mitigated by installation of vapour vents to capture fuel fumes.			
12. Will the proposed development or the land use associated with the proposed development applied for, result in unacceptable opportunity costs?	~~YES~~	**NO**	*Please explain*
*13. What will the **cumulative impacts** (positive and negative) of the proposed land use associated with the development proposal and associated listed activity(ies) applied for, be?*			

Negative:

Freshwater / Ecological: Due to the fact that the site is contained between the N2 Highway, residential development and Long Street, with limited and highly modified aquatic features within the proposed development area, the potential negative cumulative impacts to aquatic ecosystems in the area can be expected to be **very low**. By containing and mitigating the potential flow and quality impacts on surface water runoff within the site, the likely impacts of the proposed development can be adequately mitigated. The two key mitigation measures that would need be implemented within the site to ensure minimal ecological impacts arising from the proposed activity are the placement of the developed area such that it will have minimal impact on the thicket areas within the site; and that an effective pollution and erosion control, and stormwater management system is implemented within the site, with the preferred Alternative 1 Layout being the alternative with the least impact from a freshwater perspective.

Socio-Economic: **Low negative** cumulative impacts associated with safety & security during the construction phase, due to the increased movement into the property, which could lead to increase in social disturbances and conflicts in the area, including an increase in crime around the site (for e.g.: burglaries, trespassing on adjacent properties, littering, loitering, etc.). The adjacent to the Police Station (shares the same entrance) will likely serve as a deterrent to potential criminal activity, while further mitigation measures to reduce on this negative impact could include:

- Set up a recruitment office in the study area and adhere to strict labour recruitment practices that would reduce the desire of potential job seekers to loiter around the properties in hope to find temporary employment.
- Negotiate terms and conditions that would guide construction activities on the properties as well as the behaviour and conduct of the construction crew.
- Manage workers to ensure that they are only on site during reasonable work hours.

Positive:

Botanical / Ecological / Freshwater: The opportunity to rehabilitate, enhance and upgrade degraded aquatic habitats, remnant vegetation and existing stormwater management features on and adjacent to the site, as well as control the spread of invasive plants of the property as a whole, is likely to have **medium positive cumulative impacts** on both the aquatic and terrestrial ecosystems on and surrounding the property.

Socio-Economic: **Medium positive** cumulative impacts related to increase in production & GDP; employment and skills transfer; during both Construction & Operational phases created by multiplier effects, specifically through production and consumption induced effect. Mitigation measures to further enhance these positive impacts would be to encourage the EPC contractor, and later the filling station operators, to increase the local procurement practices and employment of people from local communities, as well as ensure knowledge sharing & on-the-job-training, as far as feasible to maximise the benefits to the local economies.

High positive cumulative impact on rates & taxes during construction & operation phases: The investment from the proposed development will generate revenue for the Mossel Bay Local Municipality through a combination of personal income tax, VAT, companies' tax, bulk infrastructure levies, etc. Government earnings will be distributed by the national government to cover public spending, which includes amongst others, the provision and maintenance of transport infrastructure, health and education services, as well as other public goods.

*14. Is the development the **best practicable environmental option** for this land/site?*	***YES***	~~*NO*~~	*Please explain*

The preferred Great Brak Filling Station proposal is the result a several past development proposals which have been changed and refined in response to the sensitivities and potential of the development property, site and surrounding context, as well as concerns raised by stakeholders and the general public.

Based on the findings and recommendations of the various specialists, as well as initial input from

stakeholders, the constraints and opportunities (*see Appendix J attached*) of the initial filling station proposal (filling station on 4000m² lease area only) were compiled and presented to the developer and landowner (the Mossel Bay Municipality) during 2017 & 2018. The development and rehabilitation potential of the entire property, as well as the needs of the Great Brak community, were considered in the expanded development proposal (and second lease agreement signed Jan.2019), which included the Community Craft & Skills Development Centre and the Recreational Park (with associated Restaurant, picnic area, amphitheatre & children's playground).

The development has been designed in make use of the most disturbed/transformed portion of the property, with the intention to retain and rehabilitate the remainder of the property for the benefit of the environment and the community.

The preferred Great Brak Filling Station (Alternative 1) proposal is thus considered to be the best practicable development option for the site.

15. What will the benefits be to society in general and to the local communities?	*Please explain*

The proposed Filling Station and its associated Restaurant, Recreational and Picnic Park, and Craft & Skills Development Centre will not only uplift local tourism, but also benefit local businesses and provide means of employment creation and skills enhancement, which will in turn improve living standards as people can consume higher levels of goods and services.

It is the establishment of the Community Craft & Skills Development Centre in-particular which will serve to benefit and empower the local community, as will not only support local entrepreneurs, but also assist in local job training & creation. The developer intends to enter into a joint venture with the Wonderful SA Foundation, which is a100% local, non-profit organisation dedicated to the upliftment of Great Brak River and surrounds. Their vision includes providing provision of pathways to education, life skills, employment training and recreation for young people and their families. The intention is to, in co-operation with Wonderful SA Foundation and other potential partners, to establish a small factory/ training centre where local people can manufacture products (e.g. woodwork, textile printing, leatherwork, jewellery etc.) and receive training in skills. The craft and skills development centre will serve to attract to domestic and international visitors, whereby they can see local artisans working. Furthermore, it would assist in providing skills training, employment provision and improved standard of living to those whom utilise the centre. It is important to note that the craft centre component of the development was included on recommendation of the local Municipality to meet an identified community need.

Local estate agents have indicated that property values in the area (residential and commercial) have improved, rather than been negatively influenced, by the expansion and upliftment efforts currently occurring within Great Brak River. The proposed development, and the additional investment it brings to the area, is likely further benefit the whole community.

Besides the additional value generated by the local construction businesses, through sub-contracting agreements and employment of free-lancers, the sectors that are expected to benefit the most from the production and consumption induced effects of both the construction and operational phases of the development are tertiary services, such as trade, accommodation, transport services, personal services, real estate, and insurance. This positive impact would be further enhanced should the developer insist on local procurement practices (for goods & services) and employment of people from local communities, in order to maximise the benefits to the local economies.

Healthy competition among the existing, and proposed new filling station, will ultimately benefit the consumers without adversely impacting on the long-term sustainability of the existing stations.

*16. Any **other** need and desirability considerations related to the proposed development?*	*Please explain*

Besides meeting the identified community needs, there is a need to change / improve the existing land use of the municipal property, located at the entrance to Great Brak River, as part of the Municipalities efforts to upgrade and beautify Great Brak River.

The development is to make use of and upgrade the existing transformed areas, while clean-up,

rehabilitate and green the remainder of the property. This will improve the current eye-sore / mis-used property, which has become a proper dumping ground and vehicle maintenance ground.

*17. Describe how the **general objectives of Integrated Environmental Management** as set out in Section 23 of the NEMA have been taken into account:*

(1) The purpose of this Chapter is to promote the application of appropriate environmental management tools in order to ensure the integrated environmental management of activities,

(2) The general objective of integrated environmental management is to:
(a) promote the integration of the principles of environmental management set out in section 2 into the making of all decisions which may have a significant effect on the environment:
(b) identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimizing negative impacts, maximizing benefits and promoting compliance with the principles of environmental management set out in section 2;

This environmental process has followed the guidelines to identify, predict and evaluate the actual and potential impacts associated with this development, so that the most appropriate and practical mitigation options have been identified and recommended.

(c) ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them;

This has been done by means of specialist investigations and professional input to determine baseline and predict the actual impacts associated with the proposal. The preferred alternative has been identified as the one having the least negative impacts, avoidance of sensitive areas and making use of existing disturbed / transformed areas.

(d) ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment;

This process follows the requirements of the 2014 EIA Regulations (as amended) and the NEMA Amendment Laws Act (Act 25 of 2014) for conducting a Public Participation Process. Consideration of the 2014 EIA Regulations has been applied.

(e) ensure the consideration of environmental attributes in management and

An Environmental Management Programme (EMPr) has been included to ensure that the construction, operation and any potential decommissioning of the facility in the future is managed in line with environmental requirements and Best Practice Principles.

(f) decision-making which may have a significant effect on the environment; and identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management set out in section 2.

This process is being undertaken in terms of Section 2 of NEMA.

(3) The Director-General must coordinate the activities of organs of state referred to in section 24(1) and assist them in giving effect to the objectives of this section and such assistance may include training, the publication of manuals and guidelines and the co-ordination of procedures.

All relevant guidelines and procedures have been used to produce this document and provide relevant information in order for sufficient co-governance to be implemented.

*18 Describe how the **principles of environmental management** as set out in Section 2 of the NEMA have been taken into account:*

Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.

The applicant entered into an initial long-term lease with the landowner, the Mossel Bay Municipality, to make use of a 4000m² portion of the property for purposes of developing a Filling Station only. With consideration of the specialist study findings and recommendations, as well as the identified constraints and opportunities / development potential and management needs, which pertain to the entire property (& not just the 4000m² lease area), the Municipality was approached by the

applicant to enter into a second lease agreement to allow for the development and rehabilitation / management of the remainder of the property. With consideration of the community needs as identified in the IDP and by the Municipality themselves, the development proposal was expanded to include a Community Craft & Skills Development Centre to serve the local community of Great Brak River. This facility, as well as the proposed Recreational Park, is intended to increase eco-tourism potential and appeal / attractiveness of the property.

It is the intention of the applicant to restore the majority of the development property from its currently disturbed state to a more natural state (maintaining remnant Milkwood Thicket, planting of further indigenous landscaped gardens, control of alien invasive species, and rehabilitation / management of the existing aquatic features on and surrounding the property). As part of the initial site clearing / construction activities the developer undertakes to remove all dumped waste and alien vegetation located on the property.

Development must be socially, environmentally and economically sustainable.

The use of just over a half of the development property for the proposed development (restricted to the existing transformed portion), whilst restoring the remainder to a more natural state ensures that this property is more environmentally sustainable. In addition, the intentional development of facilities to cater to the identified needs of the community and context will ensure that the development will be socially and economically sustainable.

Sustainable development requires the consideration of all relevant factors including the following:

• That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

The preferred alternative has been developed by taking into consideration the specialist studies and associated mitigation measures and recommendations, avoiding identified sensitive areas (remnant vegetation, vegetated steep slope & degraded wetland) and ensuring that impacts are kept as low as possible. The intention to restore the majority of the property from its current degraded state to a more natural state supports the sustainability of the proposal.

• that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

Management actions / measures to ensure the avoidance and minimization of pollution and degradation have been included in the EMPr for implementation during construction (e.g. management of cement & construction waste, avoidance of erosion & siltation etc.) and operation (e.g. protocols to monitor for and avoid petro-carbon contamination of the environment; optimal use of water & energy resources; waste minimization, re-use, recycling & responsible disposal etc.). The preferred alternative has aligned to utilise disturbed areas as far as possible and avoided sensitive areas identified by specialists.

• that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;

The preferred alternative has be designed to make use of the existing the disturbed portions of the property, while aligning with (through architectural design, colours, lighting etc.), as well as restoring / rehabilitating the remnant natural and cultural features and sense-of-place.

• that waste is avoided, or where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner;

Waste management must be practiced as per the EMPr and Best Practice Principles within an urban area i.e. Measures will be put in place to minimise waste and wastage during both construction and operational phases of the development. The Filling Station development will have a site refuse management system will ensure the separate storage and collection service of glass, plastic and paper for recycling purposes. Refuse removal will be handled as per agreements with the Municipality and other recycling service providers and recorded in a Service Level Agreement/s, and waste that cannot be re-used or recycled, will be disposed of via registered / licensed waste management streams. Wastewater (contaminated stormwater, sewage & greywater) generated by the development will be treated within the on-site Bio-Mite Treatment Package Plant, and treated effluent re-used for irrigation and fire-fighting purposes. Rainwater & clean stormwater will be captured & stored and used to flush toilets and urinals.

• that the use and exploitation of non-renewable natural resources is responsible and equitable, and

takes into account the consequences of the depletion of the resource;

The following energy & resource saving / efficient measures will be undertaken:

- The installation of a 50kW grid-connected solar PV system, where electricity generated from the PV generator synchronizes and operates in parallel to the municipal grid.
- Only reliable, approved and energy efficient light installations will be used, i.e. compact fluorescent lights (CFL) and LEDs. Area lighting, low-level, low-glare luminaires will be used. No mercury vapour, high-pressure sodium or incandescent lights will be used. Lighting for access road, parking and open spaces will be controlled by day/night switches or timers etc.
- In an effort to minimize the water requirements of the proposed Great Brak Filling Station, the developers have decided to utilise rainwater run-off generated on its premises for selected uses such as irrigation, fire-fighting, flushing of urinals and toilets, hosing down of driveway paving, car wash facility etc.
- The sewage generated by the development will be treated via an on-site waste-water package plant (Biomite) and the treated effluent used for irrigation and fire-fighting purposes.
- Stormwater will be managed on-site: with run-off from the forecourt treated within the on-site waste-water package plant (after being filtered through oil & litter separators/traps/sumps); stormwater will be directed to degraded wetland for rehabilitation purposes and to existing and upgraded stormwater channel adjacent to proposed boundaries.
- The operations and maintenance strategies for the filling station will have strict requirements / conditions to minimize the risks of fuel loss or spills, which will be included in the EMPr.

• that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;

The current environmental state of the property is deemed to be degraded and the remainder of the property will benefit positively by means of restoration. The abovementioned resource saving measures will avoid the exploitation of resources.

• that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and

The specialist studies and the impact predictions for the development are based on current knowledge and expertise, and have been guided by a rick-adverse and cautious approach.

• that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.

The preferred alternative is based on specialist and stakeholder / public input and is aimed at avoiding significant impacts on the environment and people's rights, wherever possible.

Environmental management must be integrated. Acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option.

The preferred alternative has been determined to be the best practicable environmental option based on specialist and stakeholder input, existing land uses and context.

Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons.

The positive impacts on the local community and tourism, as well as the restoration of the majority of the property, initiates improvements that will benefit neighbouring properties and the environment of Great Brak River.

Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.

The proposed development as a whole will be accessible to the all, with the activities / programmes supported as part of the proposed Craft & Skills Development Centre and Recreational Park, providing an intentional link to the economic, social and recreational needs of the community and context.

Responsibility for the environmental health and safety consequences of a policy, programme,

project, product, process, service or activity exists throughout its life cycle.

The consideration for the environment must be considered by the Applicant for the duration of the life span of the development. This will be achieved by means of implementation of the EMPr covering construction, operation and decommissioning in terms of best practice. This includes the ongoing rehabilitation and maintenance of indigenous vegetation / habitat on the development property, removal of alien vegetation within the cadastral boundaries and protection of threatened and protected species. The Applicant intends to removal all dumped waste material and alien vegetation from the property and adjacent Erf 451.

The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.

This process meets the requirements for participation by interested and affected parties and stakeholders. Specific attention has been given to the needs of the Great Brak River community through the expanded development proposal.

Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognizing all forms of knowledge, including traditional and ordinary knowledge.

The DEA&DP will take into account the inputs from all interested and affected parties obtained during this environmental process.

Community wellbeing and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.

The low levels of household income in the study area indicates a need for job opportunities, education and training programmes (to obtain better skills for better job opportunities). The Great Brak Filling Station development proposal is to cater for all of these needs. Employment opportunities will be created during both construction and operation phases, however it is the proposed skills training and transfer activities related to the Community Craft & Skills Development Centre which will enhance community well-being and empowerment. Indeed, the use of the proposed amphitheatre and rehabilitated Recreational Park area as an environmental education / awareness-raising hub must be highlighted, as is its potential to show-case the talent and skills of local entrepreneurs, artists and musicians.

The social, economic & environmental impacts of activities, including disadvantages & benefits, must be considered, assessed & evaluated and decisions must be appropriate in the light of such consideration and assessment.

This Basic Assessment Report (BAR) has been developed to ensure that all relevant information can be considered, assessed and evaluated in order for stakeholders to provide comment and DEA&DP to make their decision.

The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected.

The Occupational Health & Safety Act is applicable to construction and operation of the facility.

Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law.

All correspondence with, and information provided to the competent authority, is available to anyone who requests it. The decision by DEA&DP will consider all relevant information and the reasons for any decision will be communicated to all interested and affected parties.

There must be intergovernmental co-ordination and harmonisation of policies, legislation and actions relating to the environment.

This environmental process has ensured involvement of all relevant state departments and organs of state, and availability of their comments & responses, so that intergovernmental input and decision-making can be co-ordinated.

Actual or potential conflicts of interest between organs of state should be resolved through conflict resolution procedures.

Not currently applicable, but will be addressed if it becomes necessary.

Global and international responsibilities relating to the environment must be discharged in the national interest.

The assessment criteria and the specialist input utilised global mechanisms and best practice when determining the impacts and their significance.

The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage.

The proposed restoration / rehabilitation of the property for use as a community development hub, as well as a safe resting / recreational space, will serve to improve the immediate environment.

The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or multiplier pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.

Should this Application be successful, the Holder of any Authorisation/s will be required to comply with conditions to ensure that the environment is not adversely affected, and where possible, improved. Penalties associated with contraventions of these conditions will be applicable.

The vital role of women and youth in environment management and development must be recognised and their full participation therein must be promoted.

This must be ensured as part of the employment contracts associated with both construction and operation of the development.

Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.

The preferred alternative is to be restricted to the transformed areas of property, while avoiding the sensitive areas identified. The degraded wetland within the site is to be rehabilitated and used as part of the stormwater management system on the property.

Development footprints within areas with flooding risk (below the 1:100 year floodline of the nearby estuary / 3.5m contour line above mean sea level) are to be raised above the 4m contour with gravel infill (0.5m above current floodline level to avoid future climate change influence on floodlines). The property is essentially cut off from the estuarine floodplain by Long Street, along its northern boundary.

The proposed stormwater, pollution and control measures will ensure that no impacts will reach the estuarine environment. This measures, coupled with the intention to retain existing indigenous vegetation and plant further screens and gardens will further serve to limit potential flooding / erosion impacts.

SECTION E: DETAILS OF ALL THE ALTERNATIVES CONSIDERED

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

The EIA Regulations, 2014 (as amended) defines "alternatives" as " in relation to a proposed activity, means different means of fulfilling the general purpose and requirements of the activity, which may include alternatives to the—
(a) property on which or location where the activity is proposed to be undertaken;
(b) type of activity to be undertaken;
(c) design or layout of the activity;
(d) technology to be used in the activity; or
(e) operational aspects of the activity;
(f) and includes the option of not implementing the activity;"

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

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

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

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

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

1. DETAILS OF THE IDENTIFIED AND CONSIDERED ALTERNATIVES AND INDICATE THOSE ALTERNATIVES THAT WERE FOUND TO BE FEASIBLE AND REASONABLE

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

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

There are no other alternative property / locations available for consideration: The Applicant has entered into long term lease agreements with the landowner, the Mossel Bay Municipality for the property in question: Erf 4788 (previously Portion 4 of Farm 135 Klipfontein), Great Brak River.

In terms of site alternatives, only the northern portion of the property (below the 4.5m contour) is developable, as the southern portion is a vegetated steep slope / hillside. This 'development site' can itself be separated into 'front / northern' and 'back/ southern' portions, with the northern portion characterised by a flat, highly transformed / disturbed platform, created from years of dumping and use as a road-material stockpile site / vehicle maintenance yard. The 1:100 year floodline of the estuary aligns across the approx. middle of this platform, NE to SW. The southern portion, extends west-east below the slope, and the back of the Police Station erf and disturbed platform, and is vegetated with grasses interspersed by individual and clumps of indigenous and alien trees and plants. A degraded wetland in located in the approx. middle of this southern portion.

Ideally, the bulk of the filling station development building footprint and underground fuel storage tanks, should be restricted to the transformed / disturbed platform, above the 1:100 year floodline, to avoid impacting the remnant vegetation, wetland and slope to the south.

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

Please refer to explanation is (c) below – Essentially the two 'activity' alternatives considered entail:

- **Just the Filling Station** (with convenience shop, ablusions & offices), and associated 4 x 46m³ underground fuel tanks, forecourt with 4-filling points, 1-truck filling / fuel delivery point, parking, vehicle egress, advertising pylon, upgrade to Long Street, civil service infrastructure (wastewater treatment package plant, rainwater tanks etc.) – *Alternative 3.1 & 3.2 Layouts* – ***Eliminated.***
- The **'expanded Filling Station proposal'** - the abovementioned Filling Station facility, as well as a Restaurant with in- and out-door seating; a Community Craft & Skills Development Centre; and a Recreational Park – *Alternative 1 (preferred) & Alternative 2 Layouts.*

The latter, 'expanded activity proposal' (Alternative 1 & 2) serves to maximise and cater to the multiple positive community and environmental (rehabilitation & management of property) impacts / recommendations / opportunities of the property and context, as identified by the specialists, applicant and Municipality. The initial proposal of just the Filling Station (Alternative 3.1 & 3.2) is no longer applicable, given the approved second lease agreement with the landowner for the remainder of the property and considerable need and positive impacts associated with the expanded proposal.

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

LAYOUT CONSIDERATIONS:

The proximity of the Great Brak River Estuary (opposite / northern side of Long Street), the fact that the northern portion of the property falls below the 1:100 year floodline of this estuary and that the entire development site falls within the Estuarine Function Zone (EFZ, below the 5m contour line), represents the main environmental sensitivity / concern for this property i.e. the filling station (within its associated 4000m² lease area) should be placed as far above the 1:100 year floodline as possible, while avoiding other constraints of the property (e.g. the 10m building lines on northern & eastern boundaries, 4.5m contour line along base of southern slope, remnant vegetation etc.). This aspect, coupled with the need to make use of as much of the existing transformed platform as possible, without jeopardising the visibility of the filling station to potential customers, determined the position of preferred filling station footprint in the approx. centre of property, directly opposite the back of the adjacent Police Station erf. This footprint was later shifted slightly further back (some 15m) to avoid, and allow for sufficient vehicle egress around, the 'Milkwood tree island' located in the entrance to the property.

As an alternative to this preferred filing station layout, an 'Alternative 2' layout was considered above the 1:100 year floodline, but below the 4.5m contour line (edge of stability of the steep southern slope of the property). This alternative site position is entirely off the disturbed platform, would require the clearing of a large area of vegetation and potentially minor stabilisation of the base of this southern slope.

During 2017, the specialist studies considered &/ assessed just the abovementioned Filling Station proposal and its alternative (noted as Alt.1 & 2 at the time, but now considered as Alt.3.1 & 3.2). The findings of these specialist studies pertained to the entire property, with recommendations for mitigation and management measures extending beyond the existing lease agreement (only 4000m²) with the Municipality. Based on these recommendations and the identified constraints and opportunities / potential of the remainder of the property (*see Appendix J for summary)*, the applicant developed an expanded proposal during late 2017, which spoke directly to the identified community needs (community craft trading & skills development space, as well as a safe resting / recreational space for families and tourists) of the Great Brak and the rehabilitation / management needs of the property. This expanded proposal was presented to the landowner, the Mossel Bay Municipality in early 2018, with the request to extend the existing lease agreement, or initiate a second lease agreement, which would allow for the use and management of the remainder of the property by the applicant. While this expanded proposal was presented before the municipal

council during the course of 2018, the various specialists & technical team re-assessed this 'expanded proposal', which now includes the following:

Alternative 1 Layout (Preferred) – Filling Station located on southern portion of existing disturbed platform, with more than half of the filling station main building, as well as the underground fuel tanks and truck re-fuelling / delivery area, located above the 1:100 year floodline. The expanded proposal includes the addition of:

- **A Restaurant** – within the Filling Station building, with outdoor seating extending behind the building.
- **Outdoor Picnic & Recreational area** – behind the Filling Station building and behind police station erf. This 'recreational park', will include:
  - family picnic area;
  - children & pet play areas (large jungle-gym & lawn areas);
  - artistic features;
  - natural wetland feature (rehabilitated degraded wetland);
  - raised wooden walkways (so not to impact on tree root systems or wetland area);
  - amphitheatre – creating a platform for local performing artists and as an outdoor education classroom; and
  - raised berm & vegetation screen (adjacent to western boundary, between police station erf & slope – to reduce potential noise & visual impacts on neighbouring residential erven).
- **Craft & Skills Development Centre,** located on north-eastern corner of transformed platform / development site - at the front of the property adjacent to Long Street. The Applicant has committed to partnering with the community and other role-players to uplift the local community by investing in and supporting local entrepreneurs in the Great Brak and Mossel Bay area. It is hoped that this initiative will make a meaningful contribution to local job creation. The Applicant wishes to establish a partnership with the Wonderful SA Foundation (100% local, non-profit organisation) and the Great Brak River Youth Café project, as well as the Mossel Bay Municipality and Western Cape Government, which have also shown their support of these two projects / organisations. In co-operation with Wonderful SA Foundation and the Great Brak River Youth Café project, Micaren Exel plans to build a skills development centre on site where a small factory/training space is provided for local people to transfer skills, manufacture and sell their unique products e.g. woodwork, textile/fabric printing, leather work, recycled furniture and décor etc. Products will also be distributed for sale to Micaren Exel Filling Stations nationwide. It is believed that this centre will also serve as a tourist attraction where visitors can see local artisans in action, and experience the manufacturing and production process before purchasing the products at the factory outlet/retail area/ showroom.
- The remainder of the filling station building footprint and that of the Community Craft & Skills Development Centre buildings on the north-eastern corner of the development site, which fall below the 1:100 year floodline, are to be raised above the 1:100 year floodline with infill material (G4 gravel), to mitigate potential flooding risk.
- The outdoor deck & seating of the restaurant, as well as the small Amphitheatre, are to be located behind the main Filling Station building; while the picnic area, boardwalk and children's playground is to extend behind the Police Station erf. Access to the Recreational Park will be through the filling station main building and around the eastern parking area.

Alternative 2 Layout (not desirable) – Filling Station located in vegetated area, above the 1:100 year floodline and below the 4.5m contour line i.e. further south, at base of vegetated slope.

- The entire extent of the filling station main building, as well as underground fuel tanks, have been placed above the 1:100 year floodline, with only a small portion of the forecourt structure extending below it. This filling station infrastructure still falls within 200m from the highwater mark of the estuary.
- The Community Craft & Skills Development Centre buildings remain on the north-eastern corner of the site and will be raised above the 1:100 year floodline will infill G4 gravel.
- The outdoor deck & seating of the restaurant will still be located directly behind the main building, instead of being shifted to the western side where it will impact on the degraded wetland.
- Facilities associated with the Recreational Park: small Amphitheatre, picnic area, boardwalk and

children's playground, will all be restricted behind the Police Station erf, and accessed from in front of the filling station main building.
- Proposed advertising pylon, rainwater tanks, bio-mite wastewater treatment package plant, effluent conservancy tank etc. to be positioned similar to that of the preferred Alternative 1 layout.

This alternative layout is not considered desirable, for the following reasons:

- The filling station footprint and associated parking would require the clearance of a large area of vegetation, just below the sensitive, steep, southern slope;
- The position of the filling station would be so far back on the property (against the slope) that it will not be suitably visible to potential customers traveling on the N2 or Long Street;
- The Recreational Park would be considerably smaller, with its facilities cramped behind the Police Station erf;

The distance between the Craft & Skill Development Centre (ideally positioned at the front / north of the property) and the filling station and recreational park facilities would be impractical and inconvenient for those using and visiting the centre alike.

Alternative 3.1 & 3.2 Layouts (eliminated) – These alternatives represent the original filling station proposal and its alternative where only the Filling Station was considered i.e. NO restaurant, recreational park or community craft & skills centre. These Alternatives 3.1 & 3.2 are not considered desirable or applicable, given the approved second lease agreement with the landowner to considered the remainder of the property (and expanded proposal), and as they will not meet the community needs as identified, nor the rehabilitation and management needs & opportunities of the remainder of the property, as recommended by the various specialists and Municipality.

DESIGN ALTERNATIVES:

Initial building / structure architectural designs for the Filling Station and Forecourt buildings involved and grey building with flat, dark blue roof structures, with the forecourt attached to the main building in the middle. This design was changed with the development of the expanded proposal to consider pitched, thatched-roofed Filling Station and Craft & Skills Development Centre buildings, with grey / clay-brown walls. The forecourt structure would also be detached from the filling station main building. This change was introduced and measure for these buildings to better blend into the natural environment and proposed rehabilitated, green spaces of the property (including the Recreational Park).

Figure 29: Initial architectural design versus revised design of Filling Station proposal.

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

Water saving technologies:

Instead of relying solely on the municipal potable water supply / connection and in an effort to minimize the water requirements of the proposed Great Brak Filling Station, the following water-saving and re-use technologies will be implemented:

- rainwater and clean stormwater run-off generated on its premises will be captured and stored for selected uses such as irrigation, fire-fighting, flushing of urinals and toilets, hosing down of driveway paving, car wash facility etc.
- other water-saving measures will include the use of dual flush toilets; low-flow faucets; geyser and pipe insulation etc.

There is no formal sewage reticulation within Great Brak, and thus as an alternative to installing the conventional sewage septic tank / conservancy tank facilities as currently used by the Great Brak community, the proposed development is to treat and recycle all wastewater generated on-site (for fire-fighting & irrigation use). All sewage and waste-water (e.g. stormwater run-off from the forecourt area of filling station) will be directed to and treated in the on-site Bio-Mite treatment package plant, with treated effluent stored in conservancy tanks.

Stormwater will be managed on-site: run-off from the forecourt will be treated within the on-site waste-water package plant (after being filtered through oil & litter separators/traps/sumps), and clean stormwater will be directed to degraded wetland for rehabilitation purposes and to existing and upgraded stormwater channel adjacent to proposed boundaries.

Energy-saving technologies:

- Instead of relying solely on the municipal electrical connection the development will include the installation of installation of a 50kW grid-connected solar PV system, where electricity generated from the PV generator synchronizes and operates in parallel to the municipal grid.
- Only reliable, approved and energy efficient light installations will be used, i.e. compact fluorescent lights (CFL) and LEDs. Area lighting, low-level, low-glare luminaires will be used. No mercury vapour, high-pressure sodium or incandescent lights will be used. Lighting for access road, parking and open spaces will be controlled by day/night switches or timers etc.

The operations and maintenance strategies for the filling station will have strict requirements / conditions to **minimize the risks of fuel loss or spills**, which will be included in the EMPr.

Measures should also be put in place to **minimise waste and wastage** during both construction and operational phases of the development: During construction: The Geotechnical specialist indicated that the existing fill material (± upper 1m) found on the disturbed platform is of variable quality (G7-G5, i.e. marginal to good) and may be suitable for use as a filling material under structures, and/or as a selected subgrade layer for the construction of the forecourt and parking areas, instead of being removed from site for disposal.

During construction and operation the development will have a site refuse management system to ensure separate storage and collection service of **glass, plastic and paper for recycling purposes**. Refuse removal will be handled as per agreements with the Municipality and other recycling service providers and recorded in a Service Level Agreement/s.

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

Management of Waste: The removal of all general / domestic waste to landfill has far-reaching environmental and health impacts which should he avoided and/or minimised where possible. To this end, the following measures and integrated waste management approach is recommended:
The Filling Station development operators must implement a waste management strategy based on the National Waste Strategy and include the following as part of their operational guidelines:

All general / domestic waste generated by the facility during operation will be handled by Mossel Bay Municipality as per Services Agreement between the Municipality and the Developer. A central storage facility will be provided on site for the temporary storage of this waste before removal by the Municipality. Recycling bins for the re-purposing / recycling of glass, paper and plastic, should be placed within this depot for removal for recycling service providers. A recycling initiative should form part of the management responsibilities of the operator, where employees and visitors to the site are encouraged to separate recyclable items at source (separate bins throughout site), and hence

minimise the amount of general waste removed by the Municipality for disposal at the registered Landfill site.

Water Use: As an alternative to the use of potable water for flushing of toilets & urinals; car-washing, spraying down hard-surfaces; and maintaining gardens & landscaping, the following measures must be implemented to minimise the use of potable water during operation:

- Rainwater harvesting & storage (with solar pumps) for abovementioned use i.e. no potable water should be used for outdoor use.
- Only water wise, indigenous vegetation should be used in gardens and landscaping.
- Treated effluent from the on-site treatment package plant will be used for irrigation and fire-fighting purposes.

*(f) The option of **not implementing** the activity (the 'No-Go' Option):*

The No-Go alternative would result in the proposed development not proceeding on the municipal property. The current unsightly / uncontrolled landuse as a road aggregate stockpile site, parking and maintenance yard for large vehicles and dumping ground for waste (construction, household, garden & human) will continue. Invasion by alien plants will also continue.

In addition, with the No-Go Alternative, there will be no job creation, no additional capital income to the municipality, and no socio economic benefits to the community.

Should the preferred alternative not be implemented, the positive impacts associated with it (job creation, additional investment in local economy, increase in tourism, capital income to the municipality, socio-economic and training benefits to the community etc.) will not be realised. The site will remain in its semi-transformed state: very poor ecological condition, with the presence of numerous alien species and a large amount of degradation from litter, fires and uncontrolled human access. It addition, the proposed rehabilitation and management of the remnant aquatic (wetland & stormwater channel) and terrestrial ecosystems within and adjacent to the development property will unlikely be implemented by the Municipality, nor will the removal of dumped waste and alien vegetation. Under the no-go alternative, the degradation of the site is likely to continue, resulting in the further erosion of the ecological integrity of the site and Great Brak River character / sense of place.

The no-go alternative would have negative long-term consequences for the property.

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

None

*(h) Provide a **summary** of all alternatives investigated and the outcome of each investigation:*

Site / Layout & Activity Alternatives:

Alternative 1 (*Preferred)*: Expanded Filling Station proposal, with filling station footprint positioned on southern extent of transformed platform, with eastern portion of building and underground fuel tanks above the 1:100 year floodline, and western portion of main building and forecourt below the 1:100 year floodline.

Expanded proposal includes:

- Restaurant, with outside seating deck behind (south) of filling station main building;
- Recreational Park, behind filling station building and Police Station erf, with small amphitheatre, children's playground, rehabilitated wetland feature, boardwalks (to avoid tree roots & wetland), artistic features and vegetated berm along western boundary;
- Community Craft & Skills Development Centre, on north-eastern corner of disturbed platform.

Portion of Filling Station building, forecourt and the Craft & Skill Development Centre buildings to be raised with gravel infill above 1: 100 year floodline / 3.5m contour line to 4m contour line (0.5m above existing floodline level to avoid future climate change influences).

Alternative 2 *(not desirable):* Expanded Filling Station proposal, with filling station footprint positioned backwards onto vegetated area between the 1:100 year floodline (above) and the 4.5m contour line of the southern slope.

Expanded proposal includes:

- Restaurant, with outside seating deck behind (south) of filling station main building to avoid impact on wetland;
- Recreational Park, with facilities restricted / confined to behind Police Station erf;
- Community Craft & Skills Development Centre, on north-eastern corner of disturbed platform, raised with gravel infill above 1: 100 year floodline / 3.5m contour line to 4m contour line (0.5m above existing floodline level to avoid future climate change influences).

Alternative 3.1 *(not desirable & eliminated):* Just Filling Station facility positioned as per Alt.1 above – NO other facilities as per expanded proposal. Unlikely that clearance of 300m² of indigenous vegetation will be triggered, as bulk of development to be restricted to / contained on the existing transformed platform.

Alternative 3.2 *(not desirable & eliminated):* Just Filling Station facility positioned as per Alt.2 above – NO other facilities as per expanded proposal.

Advertising Pylon (on north-western corner of property) and Service infrastructure (resource efficient) applicable to all abovementioned alternatives:

- Upgrade to access off Long Street, to create dedicated left and right turning / slip lanes;
- On-site Bio-Mite wastewater treatment package plant, with treated effluent stored in 100lt conservancy tank for irrigation & fire-fighting use;
- Rainwater & stormwater capture and storage system, for use in irrigation, flushing toilets, outdoor washing of cars & surfaces etc.;
- Solar PV panels on forecourt roof to supplement municipal electrical supply from nearby mini-substation (70m cable underground cable require to connect to property);
- Municipal potable water connection from bulk water main along northern / eastern boundary;
- Refuse separation / collection yard on eastern side of filling station main building;
- Paved egress and parking on disturbed platform with parking in front and on eastern side of main filling station building.

Technological alternative:

- Energy- and water- saving technologies instead of conventional.
- On-site wastewater treatment package plant instead of conventional septic tank / conservancy tank sewage storage systems.
- Use of existing fill material on platform for construction purposes, as well as waste separation for recycling purposes instead of disposal to landfill, will ensure waste minimisation.

Operational alternatives:

Water Use: As an alternative to the use of potable water for flushing of toilets & urinals; car-washing, spraying down hard-surfaces; and maintaining gardens & landscaping, the following measures must be implemented to minimise the use of potable water during operation:

- Rainwater harvesting & storage (with solar pumps) for abovementioned use i.e. no potable water should be used for outdoor use.
- Only water wise, indigenous vegetation should be used in gardens and landscaping.
- Treated effluent from the on-site treatment package plant will be used for irrigation and fire-fighting purposes.

Waste minimisation: Waste separation for recycling purposes instead of disposal to landfill.

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

No further site alternatives, activity or technological alternatives were considered, due to the considerable measures already taken by the developer to select the best environmentally-, economic- and socio-cultural development proposal. The proposed selection of the preferred development site and proposal is the result of multiple revisions and additions, based on the recommendations of the various specialist studies and Municipality, as well as review of the community and environmental needs of the context.

2. PREFERRED ALTERNATIVE

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

Alternative 1 is the preferred option for the following reasons:

- Positioned to **make use of as much of the disturbed / transformed area** of the property as possible, while **avoiding remnant vegetation, degraded wetland and sensitive slope** behind (4.5m contour), as well as providing sufficient vehicle egress (15m) around the **Milkwood trees at the entrance** (island opposite Police station entrance);
- Positioned as much of the Filling Station footprint and associated underground fuel tanks **above the 1:100 year floodline**, while avoiding the remnant vegetation & slope behind. The intention is to **raise the portion of the footprint** below the floodline with infill to above the floodline;
- Allow for **sufficient parking, egress and truck turning area** around the filling station, while making use of the existing transformed area of the site as possible;
- **Make use and upgrade existing access servitude / right-of-way with Police Station**;
- **Avoid building lines and water servitudes;**
- To position the Filling Station as close to Long Street / front of the property (while avoiding existing site constraints) so that it **clearly visible to potential clients** from Long Street and N2 Highway, while not being visually intrusive (that's why maintenance of existing trees and planting trees as screens important).

Alt.2 was considered as an alternative to try avoid the 1:100 year floodline entirely, as well as the 4.5m contour against the slope. This alternative is not considered desirable due to increased impacts on the remnant vegetation, degraded wetland and sensitive slope in this area i.e. not making use of the existing disturbed areas of the site. In addition, this position would make the Filling Station almost invisible from the N2 and Long Street to potential clients. Also, it would mean restricting the Recreational Park: playground, amphitheatre etc. behind the Police Station – not ideal. Also, the distance between the Alt2 Filling Station footprint that the community stalls would be impractical.

The preferred development proposal has been designed to avoid and/or mitigate all built and environmental constraints / sensitivities of the property, while maximising the development potential / opportunities of the site and positive impacts associated with meeting the community and environmental needs of the context.

Potential negative impacts related to the proximity of the estuary (flood risk, pollution avoidance & control etc.) have been adequately mitigated through design, layout, technological, management, operational and monitoring measures.

The impact on competing Filling Station/s is considered to be short term, neutral to negative (negligible to low), considering multiple aspects of the context, not least of which being:

- Different transient traffic stream from the N2 - the proposed filling station will draw traffic travelling east (Mossel to George), whereas the Total Great Brak draws from the opposite direction;
- Fuel sales increased on average by 15.8% within the Mossel Bay Magisterial District & the

importance of N2 within the Garden Route indicates that there will be a constant flow of transient traffic in both directions.
- The expanded proposal (Recreational Park & Craft & Skills Development Centre) is unique for the area and will thus provide different facilities and attract tourists and locals for different reasons.

SECTION F: ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE ALTERNATIVES

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

1. DESCRIBE THE ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE PROPOSED DEVELOPMENT AND ITS ALTERNATIVES, FOCUSING ON THE FOLLOWING:

(a) Geographical, geological and physical aspects:

Only the northern portion of the property (below the 4.5m contour) is flat / stable enough to be developable, as the southern portion (above the 4.5m contour) is a vegetated steep slope / hillside. This 'development site' can itself be separated into 'front / northern' and 'back/ southern' portions, with the northern portion characterised by a flat, highly transformed / disturbed platform, created from years of dumping and use as a road-aggregate stockpile site and vehicle maintenance yard. The 1:100 year floodline of the estuary aligns across the approx. middle of this platform, NE to SW. The southern portion, extends west-east below the slope, and behind the back of the Police Station erf and disturbed platform, and is vegetated with grasses interspersed by individual and clumps of indigenous and alien trees and plants. A degraded wetland in located in the approx. middle of this southern portion.

Due to these physical conditions, the filling station development building footprint, including underground fuel storage tanks, parking etc. should be restricted as far as possible to the transformed / disturbed platform, above the 1:100 year floodline, to avoid impacting the remnant vegetation, wetland and slope to the south.

The proximity of the Great Brak River Estuary (opposite / northern side of Long Street), the fact that the northern portion of the property falls below the 1:100 year floodline of this estuary and that the entire development site falls within the Estuarine Function Zone (EFZ, below the 5m contour line), represents the main environmental sensitivity / concern for this property i.e. the filling station (within its associated 4000m² lease area) should be placed as far above the 1:100 year floodline as possible, while avoiding other constraints of the property (e.g. the 10m building lines on northern & eastern boundaries, 4.5m contour line along base of southern slope, remnant vegetation etc.). This aspect, coupled with the need to make use of as much of the existing transformed platform as possible, without jeopardising the visibility of the filling station to potential customers, determined the position of preferred filling station footprint in the approx. centre of property, directly opposite the back of the adjacent Police Station erf. This footprint was later shifted slightly further back (some 15m) to avoid, and allow for sufficient vehicle egress around, the 'Milkwood tree island' located in the entrance to the property.

As an alternative to this preferred filing station layout, an 'Alternative 2' layout was considered above the 1:100 year floodline, but below the 4.5m contour line (edge of stability of the steep southern slope of the property). This alternative site position is entirely off the disturbed platform, would require the clearing of a large area of vegetation and potentially minor stabilisation of the base of this southern slope.

(b) Ecological aspects:

Will the proposed development and its alternatives have an impact on CBAs or ESAs? *If yes, please explain:* *Also include a description of how the proposed development will influence the quantitative values (hectares/percentage) of the categories on the CBA/ESA map.*	***YES***	~~*NO*~~

The entire 'development site' on the property (below the 4.5m contour) falls within an areas mapped with fragmented Estuary CBA and Restore ESA. All the development alternatives fall within and influence these areas of CBA / ESA. The preferred Alternative 1 (and Alt.3.1) will however have a lower impact on the remnant vegetation, wetland and slope on the property, when compared to Alt.2. (& Alt.3.2)

Will the proposed development and its alternatives have an impact on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)?	***YES***	~~*NO*~~
If yes, please explain:		

The *Preferred* Alternative 1 will have an overall POSITIVE impact, as it is to avoid / retain the majority of the remnant vegetation on the property (especially trees), as well as rehabilitate this vegetation, degraded wetland (on the site) and stormwater channels (beyond the site). Only a small percentage of already disturbed vegetation will be impacted on as part of the installation of the Advertising Pylon at the entrance (disturbed *Searsia* bush); Palisade fencing along portions of the property boundary; installation of children's playground; amphitheatre and raised boardwalk around wetland and large trees.

The Alternative 2 layout will require the clearance of a large area of intact Dune Thicket vegetation and trees, between the disturbed platform and the base of the southern slope, in order to be positioned above the 1:100 year floodline of the estuary. In addition, the recreational park facilities will then need to be 'squoshed' into a smaller area behind the Police Station erf, which will hamper movement around the wetland and protected trees in this area.

The removal and control of all alien invasive species, and the positive impacts associated with this, applies to all alternatives.

Will the proposed development and its alternatives have an impact on any populations of threatened plant or animal species, and/or on any habitat that may contain a unique signature of plant or animal species?	~~*YES*~~	***NO***
If yes, please explain:		

Describe the manner in which any other biological aspects will be impacted:

Clark (2017) confirmed that the development property it is effectively isolated from the rest of the EFZ and the Great Brak Estuary by Long Street and is thus **no longer functionally linked with the estuary** (Clark, 2017). Estuarine biota are unlikely to be able to use this site and the risk of contaminated stormwater reaching the estuary from the site is minimal, except possibly during a major flood (would need to be large enough to cover Long Street) or if a fuel delivery tanker had an accident on the road before reaching the site. Pollution control measures will be implemented on the site to ensure that no contamination of surface stormwater or groundwater takes place. These measures will be defined in the Environmental Management Programme (EMPr) for implementation during design, construction & operation and the development.

The preferred Filling Station development footprint has been strategically placed on the existing transformed area of the property, with the intention to retain, rehabilitate and enhance the vegetation and aquatic features on the remainder of the property.

Will the proposed development also trigger section 63 of the NEM: ICMA?	***YES***	~~*NO*~~

If yes, describe the following:
(i) the extent to which the applicant has in the past complied with similar authorisations;
(ii) whether coastal public property, the coastal protection zone or coastal access land will be affected, and if so, the extent to which the proposed development proposal or listed activity is consistent with the purpose for establishing and protecting those areas;
(iii) the estuarine management plans, coastal management programmes, coastal management lines and coastal management objectives applicable in the area;
(iv) the likely socio-economic impact if the listed activity is authorised or is not authorised;
(v) the likely impact of coastal environmental processes on the proposed development;
(vi) whether the development proposal or listed activity—
(a) is situated within coastal public property and is inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations;
(b) is situated within the coastal protection zone and is inconsistent with the purpose for which a coastal protection zone is established as set out in section 17 of NEM: ICMA;
(c) is situated within coastal access land and is inconsistent with the purpose for which coastal access land is designated as set out in section 18 of NEM: ICMA;

(d) is likely to cause irreversible or long-lasting adverse effects to any aspect of the coastal environment that cannot satisfactorily be mitigated;
(e) is likely to be significantly damaged or prejudiced by dynamic coastal processes;
(f) would substantially prejudice the achievement of any coastal management objective; or
(g) would be contrary to the interests of the whole community;
(vii) whether the very nature of the proposed activity or development requires it to be located within coastal public property, the coastal protection zone or coastal access land;
(viii) whether the proposed development will provide important services to the public when using coastal public property, the coastal protection zone, coastal access land or a coastal protected area; and
(ix) the objects of NEM: ICMA, where applicable.

(i) Applicant has not triggered the need for such authorisation in the past;

(ii) **Coastal Protection Zone (CPZ)**: In the case of the Great Brak River estuary, the land surrounding the estuary is mostly zoned for urban development, and thus a default CPZ of 100m applies. However, it is recommended that in the case of the Great Brak River estuary, where existing development has already encroached significantly into the **Estuarine Functional Zone (EFZ)** where a high potential flood risk exists, a Coastal Management Line (CML) be established at the 5m contour. Any future development seawards of a CML should be subject to an Environmental Impact Assessment (EIA) and would have to be compatible with the vision and objectives defined within the local Great Brak Estuary Management Plan (2018). Although the entire development site is located below the 5m contour, it is effectively isolated from the rest of the EFZ and the Great Brak Estuary by Long Street and is thus **no longer functionally linked with the estuary** (Clark, 2017). Estuarine biota are unlikely to be able to use this site and the risk of contaminated stormwater reaching the estuary from the site is minimal, except possibly during a major flood (would need to be large enough to cover Long Street) or if a fuel delivery tanker had an accident on the road before reaching the site. Pollution control measures will be implemented on the site to ensure that no contamination of surface stormwater or groundwater takes place. These measures will be defined in the Environmental Management Programme (EMPr) for implementation during design, construction & operation and the development.

(iii) The Great Brak Estuary Management Plan recommends that a development setback line for the Great Brak River estuary be established that corresponds with the **estuarine functional zone** for this estuary (5m topographical contour) as defined in the 2011 National Biodiversity Assessment: Estuary Component (van Niekerk & Turpie 2012) in order to protect ecological functioning and integrity of the estuary, limit disturbance to estuarine flora and fauna, and will assist in retaining the wilderness character of the estuary and enhance its ecotourism appeal. The preferred Filling Station development footprint has been strategically placed on the existing transformed area of the property, with the intention to retain, rehabilitate and enhance the vegetation and aquatic features on the remainder of the property. The design of the filling station, its associated community and recreational facilities and the proposed rehabilitation of the property, are likely to improve the sense of place / character of the property, enhancing its eco-tourism attractiveness.

(iv) The preferred development proposal has multiple positive socio-economic impacts / benefits, which include increased investment in the area, employment opportunities during construction & operation, upliftment of local tourism, which will not only benefit local businesses but also provide the means of employment creation which will in turn improve living standards as people can consume higher levels of goods and services. Indeed, the proposed development, rehabilitation and management of the property stands to benefit the village of Great Brak by gaining a visually attractive and useful amenity that also provides a visual statement at its main entrance. Should the development not be authorised, the property will likely remain unsightly, misused and mismanaged – a popular dumping ground, road aggregate stockpile site and maintenance / parking yard for large utility, construction and passenger vehicles.

(v) Clark (2017) confirmed that the development site is effectively separated from the estuary by Long Street. However, as a flood-risk mitigation measure the floor levels of all buildings to be built below the 1:100 year floodline / 3.5m will be raised above this level (to above 4m contour). In addition, stormwater and seepage will be managed to mitigate and water-logging etc.

(vi) (a) property / development site does not fall within coastal public property.

(b) The northern portion of the property falls within the coastal protection zone. The development within this area is consistent with the purpose of the CPZ as set out in section 17 of the ICMA.
(c) The property / development is not located within coastal access land.
(d) The development will NOT cause irreversible or long-lasting impacts on the coastal environment, as all impacts can be adequately avoided or mitigated.
(e) The property / development is unlikely to be significantly damaged or prejudiced by dynamic coastal processes as it far removed from the estuary mouth and is essentially separated from the estuary by Long Street. Sufficient mitigation measures will be implemented to avoid / minimise flood-risk.
(f) The development will not prejudice any coastal management objective.
(g) The development will not be contrary to the interests of the community. In fact, the development will be to the benefit of the community.
(vii) N/A
(viii) The develop is to serve as a valued-added public amenity, providing convenience, recreational, recreational and social upliftment facilities and services to the community and visitors of Great Brak River.
(ix) See (ii) and (iii) above.

(h) Social and Economic aspects:

What is the expected capital value of the project on completion?	R13 551 250	
What is the expected yearly income or contribution to the economy that will be generated by or as a result of the project?	R11,19 million (GDP Contribution)	
Will the project contribute to service infrastructure?	***YES***	~~*NO*~~
Is the project a public amenity?	***YES***	~~*NO*~~
How many new employment opportunities will be created during the development phase?	66	
What is the expected value of the employment opportunities during the development phase?	R5,28 million	
What percentage of this will accrue to previously disadvantaged individuals?	98%	

How will this be ensured and monitored (please explain):

Adherence to mitigation measures proposed within the *Socio-Economic Impact Assessment Report attached as Annexure G7:*

- Sub-contract to local construction companies where possible.
- Establish a local skills desk in the study area to determine the potential skills that could be sourced in the area.
- Knowledge sharing and on-the-job- training should be viewed as a prerequisite, where feasible, for all service contractors/service providers working on the development and employing local labour.

How many permanent new employment opportunities will be created during the operational phase of the project?	38 per annum
What is the expected current value of the employment opportunities during the first 10 years?	R2,71 million per annum
What percentage of this will accrue to previously disadvantaged individuals?	99%

How will this be ensured and monitored (please explain):

Adherence to mitigation measures proposed within the *Socio-Economic Impact Assessment Report attached as Annexure G7:*

- Where possible, local labour should be considered for employment.
- If possible, goods and services should be procured from local small businesses, this will stimulate indirect job creation.

Any other information related to the manner in which the socio-economic aspects will be impacted:

See Section B(4) above and Socio-Economic Impact Assessment Report attached as Annexure G7.

(i) Heritage and Cultural aspects:

The preferred alternative has be designed to make use of the existing the disturbed portions of the property, while aligning with (through architectural design, colours, lighting etc.), as well as restoring / rehabilitating the remnant natural and cultural features and sense-of-place.

The development is likely to exceed 5000m² in size and change the character of the existing disturbed, vacant site. No significant buildings, ruins, grave sites or any other heritage-related activities and objects are evident within the immediate landscape.

2. WASTE AND EMISSIONS

(a) Waste (including effluent) management

Will the development proposal produce waste (including rubble) during the development phase?	***YES***	~~*NO*~~
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type?	*± 30m³*	
Building waste is expected to be generated during construction. This will include paper, plastic, rubble etc. A percentage of the existing fill material on the disturbed platform will be used as infill / compaction material, as well as sub-layers for paving etc.		

Will the development proposal produce waste during its operational phase?	***YES***	~~*NO*~~
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type?	*±200m³ per annum*	

Will the development proposal require waste to be treated / disposed of on site?	***YES***	***NO***
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of?	*m³*	
Wastewater (sewage & greywater) generated by the development, as well as contaminated stormwater run-off captured off the forecourt surfaces, will be treated in the on-site Bio-Mite wastewater treatment package plant (daily throughput capacity of 21m³) – Three chambers = 21 + 25 + 100 = 146 Kℓ (m³). The treated effluent will then be stored in 100lt conservancy tank for irrigation and fire-fighting use.		
If no, where and how will the waste be treated / disposed of? Please explain. *Indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of?*	*TBC (m³)*	
• Construction waste / rubble will be disposed of by the Construction Contractor at the new regional landfill site in Mossel Bay. • General / Domestic waste, generated during operation, will be disposed of by the Mossel Bay Municipality at the new regional landfill site in Mossel Bay. • Recyclable domestic waste (glass, paper & plastic), generated & separated during operation, to be picked up by Recycling Service Provider for recycling.		
Has the municipality or relevant authority confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal? *If yes, provide written confirmation from the municipality or relevant authority.*	***YES***	~~*NO*~~
Will the development proposal produce waste that will be treated and/or disposed of at another facility other than into a municipal waste stream?	~~*YES*~~	***NO***
If yes, has this facility confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal? *Provide written confirmation from the facility.*	~~*YES*~~	~~*NO*~~

~~Does the facility have an operating license? (If yes, please attach a copy of the licence.)~~	~~YES~~	~~NO~~
~~Facility name:~~		
~~Contact person:~~		
~~Cell:~~	~~Postal address:~~	
~~Telephone:~~	~~Postal code:~~	
~~Fax:~~	~~E-mail:~~	

Describe the measures that will be taken to reduce, reuse or recycle waste:

Management of Waste: All general / domestic waste generated by the facility during operation will be handled by Mossel Bay Municipality as per Services Agreement between the Municipality and the Developer. A central storage facility will be provided on site for the temporary storage of this waste before removal by the Municipality. Recycling bins for the re-purposing / recycling of glass, paper and plastic, will be placed within this depot for removal for recycling service providers. A recycling initiative should form part of the management responsibilities of the operator, where employees and visitors to the site are encouraged to separate recyclable items at source (separate bins provided throughout site), and hence minimise the amount of general waste removed by the Municipality for disposal at the registered Landfill site

(b) Emissions into the atmosphere

Will the development proposal produce emissions that will be released into the atmosphere?	***YES***	***NO***
If yes, does this require approval in terms of relevant legislation?	~~YES~~	***NO***
If yes, what is the approximate volume(s) of emissions released into the atmosphere?		~~m^3~~

Describe the emissions in terms of type and concentration and how these will be avoided/managed/treated/mitigated:

The construction phase of the development is expected to generate low nuisance impacts related to dust generation and vehicle emissions, while fuel fume emissions from fuel tanks during operation will be mitigated by installation of vapour vents. These impacts can be mitigated by implementation of measures specified in the EMPr – *see Section 7 below & attached EMPr as Appendix H.*

3. WATER USE

(a) Indicate the source(s) of water for the development proposal by highlighting the appropriate box(es).

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

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

(b) If water is to be extracted from a groundwater source, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	**----**	~~m^3~~

(c) Does the development proposal require a water use permit / license from DWS? *General Authorisation for rehabilitation of wetland and stormwater channel and irrigation with treated effluent.*	***YES***	~~NO~~
If yes, please submit the necessary application to the DWS and attach proof thereof to this application as an Appendix.		

(d) Describe the measures that will be taken to reduce water demand, and measures to reuse or recycle water:

- In an effort to minimize the water requirements of the proposed Great Brak Filling Station, the developers have decided to **utilise rainwater run-off** generated on its premises for selected uses such as irrigation, fire-fighting, flushing of urinals and toilets, hosing down of driveway paving, car wash facility etc.
- The sewage generated by the development will be treated via an **on-site waste-water package plant (Biomite)** and the **treated effluent used for irrigation and fire-fighting purposes**.
- **Stormwater will be managed on-site**: with run-off from the forecourt treated within the on-site waste-water package plant (after being filtered through oil & litter separators/traps/sumps); stormwater will be directed to degraded wetland for rehabilitation purposes and to existing and upgraded stormwater channel adjacent to proposed boundaries.

4. POWER SUPPLY

(a) Describe the source of power e.g. municipality / Eskom / renewable energy source.

Municipal & renewable energy source (50kW grid-connected solar PV system on Forecourt roof).

(b) If power supply is not available, where will power be sourced?

Back-up generators and solar installation for electrical supply.

5. ENERGY EFFICIENCY

(a) Describe the design measures, if any, that have been taken to ensure that the development proposal will be energy efficient:

- Instead of relying solely on the municipal electrical connection the development will include the installation of installation of a 50kW grid-connected solar PV system, where electricity generated from the PV generator synchronizes and operates in parallel to the municipal grid.
- Only reliable, approved and energy efficient light installations will be used, i.e. compact fluorescent lights (CFL) and LEDs. Area lighting, low-level, low-glare luminaires will be used. No mercury vapour, high-pressure sodium or incandescent lights will be used. Lighting for access road, parking and open spaces will be controlled by day/night switches or timers etc.

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

See above.

6. TRANSPORT, TRAFFIC AND ACCESS

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

Drawn for TIA attached as Annexure G6:

- The existing access to Erf 4788 off Long Street (MR348) must be retained in current position.
- Shared access / 20m 'right-of-way servitude' with Police Station to be retained – proposed upgrade to access by development to benefit both the development and the Police Station.
- Due to the site's close proximity to the N2 highway, a fair amount of vehicles will be attracted for either refuelling or a visit to the convenience store. It is assumed that 8% of the N2 light vehicle traffic will be attracted to the filling station and correspondingly, 11% of the heavy vehicle traffic counted on the N2.
- The large amount of traffic, attracted by the proposed filling station, turning in to the proposed filling station's site, from the MR 348 through road, results in the requirement of both a dedicated right turn lane (for East travelling vehicles) as well as a dedicated left turn lane (for West travelling vehicles). It is recommended that both a right turn lane and a left turn lane be provided.
- The queue distance at the development's access were found to be 20 m for the worst case scenario (AM Peak hour in this case). A minimum of 20 m should be set out for queuing vehicles at the stop, wanting to enter the through road.
- The impact of the traffic attracted from the surrounding road network has little to no effect on the Level of Service (LOS) of the nearby intersections. No upgrades, other than the turning lanes at the access, is required for this development: The traffic generated by the development will have no influence on the Sandhoogte intersection, the TR 209/ MR 344 – Long Street Intersection, nor the N2 Eastern Ramps – Long Street Intersection, and no upgrades are required. While the development will have very little influence on the N2 Western Ramps – Long Street Intersection and therefore no upgrades are required here.

7. NUISANCE FACTOR (NOISE, ODOUR, ETC.)

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

During Operation:

- Potential **noise impacts** will be minimal considering the existing noise levels created by Long Street and the N2 Highway. Potential noise impacts of the proposed amphitheatre and children's playground on the neighbouring residential erven will be mitigated through the creation of a vegetated berm to be installed along the western property boundary, which will be planted with a screen of large indigenous trees. Performances / presentations by musicians and educators will be controlled and restricted to day-time trading hours associated with the Restaurant.
- Potential **odour impacts** associated with the fuel tanks will be mitigated by installation of vapour vents to capture fuel fumes.

During Construction:

Noise, vehicle emission and dust generation impacts are expected during the construction phase, however these will be temporary / have a short duration and low given the urban environment (next to a major road). These impacts can be mitigated to acceptable levels through the implementation of EMPr:

Noise: Construction activities must be confined to normal working hours (08:00 - 17:00 on workdays & 08:00 to 14:00 on Saturdays). Deviations to these times must be communicated with the ECO and neighbours. Apart from confining noise to the normal hours as detailed above, the following noise abatement (reduction of intensity and amount) measures should be implemented:

- Provide baffle and noise screens to noisy machines as necessary;
- Provide absorptive linings to the interior of engine compartments;
- Ensure machinery is properly maintained (fasten loose panels, replace defective silencers);
- Switch off machinery immediately when not in use;
- Reduce impact noise by careful handling.

The Contractor shall be responsible for compliance with the relevant legislation with respect to noise inter alia Section 25 of ECA.

Emission control in vehicles will be reduced by implementing the above mentioned noise control methods. Furthermore the following should be taken into account:

- All diesel vehicles should be correctly maintained and serviced to minimise unnecessary exhaust emissions;
- Any vehicles with smoking exhausts should be tested for emissions and repaired immediately;
- Speed limits must be adhered to;
- Vehicles and other diesel driven machinery should be switched off when not in use.

Dust: The movement of construction vehicles and removal of vegetation will create dust that could impact on the surrounding vegetation and cause inconvenience to neighbouring property owners / businesses. The following measures will be included in the EMPr for implementation to avoid / minimise this impact:

- Construction vehicles must adhere to speed limits. During dry, dusty periods haul roads / exposed areas should be kept dampened to prevent excess dust. No potable water or estuary water may be used for damping haul roads.
- Exposed stockpile materials must be adequately **protected** against wind (covered), and should be sited taking into consideration the prevailing wind conditions. Covering could include planting of short term vegetation to prevent dust such as rye grass or even covering with grass sods which can later be used for landscaping. No invasive alien vegetation may be used as a vegetative cover on stockpiles.
- Trucks bringing in materials must be **covered** to prevent dust and small particles escaping and potentially causing damage to people and property.

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

8. OTHER

SECTION G: IMPACT ASSESSMENT, IMPACT AVOIDANCE, MANAGEMENT, MITIGATION AND MONITORING MEASURES

1. METHODOLOGY USED IN DETERMINING AND RANKING ENVIRONMENTAL IMPACTS AND RISKS ASSOCIATED WITH THE ALTERNATIVES

*(a) Describe the **methodology** used in determining and ranking the nature, significance consequences, extent, duration and probability of potential environmental impacts and risks associated with the proposed development and alternatives.*

All possible impacts need to the assessed – the **direct, in-direct as well as cumulative impacts**. Impact criteria should include the following:

- **Nature of the impact:** impacts associated with the proposed Public Safety Centre development have been described in terms of whether they are negative or positive and to what extent.
- **Duration of impacts: Impact were assessed in terms of their anticipated duration:**
  - Short term (e.g. during the construction phase)
  - Medium term (e.g. during part or all of the operational phase)
  - Permanent (e.g. where the impact is for all intents and purposes irreversible)
  - Discontinuous or intermittent (e.g. where the impact may only occur during specific climatic conditions or during a particular season of the year)
- **Intensity or magnitude: The size of the impact (if positive) or its severity (if negative):**
  - Low, where the receiving environment (biophysical, social, economic, cultural etc.) is negligibly affected or where the impact is so low that the remedial action is not required;
  - Medium, where the receiving environment (biophysical, social, economic, cultural etc.) is altered, but not severely affected, and the impact can be remedied successfully; and
  - High, where the receiving environment (biophysical, social, economic, cultural etc.) would be substantially (i.e. to a very large degree) affected. If a negative impact, could lead to irreplaceable loss of a resource and/or unacceptable consequences for human wellbeing.
- **Probability: Should describe the likelihood of the impact actually occurring indicated as:**
  - Improbable, where the possibility of the impact is very low either because of design or historic experience;
  - Probable, where there is a distinct possibility that the impact will occur;
  - Highly probable, where it is most likely that the impact will occur; or
  - Definite, where the impact will occur regardless of any prevention measures.
- **Significance: The significance of impacts can be determined through a synthesis of the assessment criteria. Significance can be described as:**
  - Low, where it would have negligible effect on the receiving environment (biophysical, social, economic, cultural etc.), and on the decision;
  - Medium, where it would have a moderate effect on the receiving environment (biophysical, social, economic, cultural etc.), and should influence the decision;
  - High, where it would have, or there would be a high risk of, a large effect on the receiving environment (biophysical, social, economic, cultural etc.). These impacts should have a major influence on the decision;
  - Very high, where it would have, or there would be a high risk of, an irreversible negative impact on the receiving environment (biophysical, social, economic, cultural etc.) and irreplaceable loss of natural capital/resources or a major positive effect on human well-being. Impacts of very high significance should be a central factor in decision-making.
  - Provision should be made for with and without mitigation scenarios.
- **Confidence: The level of confidence in predicting the impact can be described as:**
  - Low, where there is little confidence in the prediction, due to inherent uncertainty about the likely response of the receiving ecosystem, or inadequate information;
  - Medium, where there is a moderate level of confidence in the prediction, or

- High, where the impact can be predicted with a high level of confidence

- **Consequence**: **What will happen if the impact occurs**
  - Insignificant, where the potential consequence of an identified impact will not cause detrimental impact to the receiving environment;
  - Significant, where the potential consequence of an identified impact will cause detrimental impact to the receiving environment.
  - Provision must be made for with and without mitigation scenarios.

The impacts should also be assessed in terms of the following aspects:

- **Status of the impact**

The specialist should determine whether the impacts are negative, positive or neutral ("cost – benefit" analysis). The impacts are to be assessed in terms of their effect on the project and the environment. For example, an impact that is positive for the proposed development may be negative for the environment. It is important that this distinction is made in the analysis.

- **Cumulative impact**

Consideration must be given to the extent of any accumulative impact that may occur due to the proposed development. Such impacts must be evaluated with an assessment of similar developments planned and already in the environment. Such impacts will be either positive or negative, and will be graded as being of negligible, low, medium or high impact.

Care must be taken to ensure that where cumulative impacts can occur that these impacts are considered and categorised as **additive** (incremental or accumulative); **interactive**, **sequential** or **synergistic**.

Based on a synthesis of the information contained in the above-described procedure, the specialists are required to assess the potential impacts in terms of the following significance criteria:

- **No significance**: The impacts do not influence the proposed development and/or environment in any way.
- **Low significance**: The impacts will have a minor influence on the proposed development and/or environment. These impacts require some attention to modification of the project design where possible, or alternative mitigation.
- **Moderate significance**: The impacts will have a moderate influence on the proposed development and/or environment. The impact can be ameliorated by a modification in the project design or implementation of effective mitigation measures.
- **High significance**: The impacts will have a major influence on the proposed development and/or environment.

In addition to the above methodology, please refer to the various specialist Statements & Reports attached in Appendix G for the study-specific methodologies undertaken to determine and ranks impacts.

Generic methodology undertaken by EAP to inform overall environmental impact assessment:

- Review of relevant biodiversity sector plan mapping, to confirm vegetation type, ecosystem threat status, CBA & ESA, Water Resources etc.
- Review of the Western Cape Provincial Spatial Development Framework (2014), as well as other relevant spatial goals, priorities, policies, management plans etc.
- Various Site Visits undertaken between 2017 – 2019;
- Various meetings held with Applicant, specialists, authorities and Municipality (*see Annexure E 3);*
- Review planning, technical & specialist reports, and other project related information.
- Review of previous public comments & input.

(b) Please describe any gaps in knowledge.

This section provides a brief overview of *specific assumptions and limitations* having an impact on this environmental application process:

- It is assumed that the information on which this report is based (specialist studies and project

information, as well as existing information) is **correct, factual and truthful.**

- The proposed development is **in line** with the statutory planning vision for the area (namely the local Spatial Development Plan), and thus it is assumed that issues such as the cumulative impact of development in terms of character of the area and its resources, have been taken into account during the strategic planning for the area.
- It is assumed that all the relevant **mitigation measures** and agreements specified in this report (including the lease agreement/s) will be implemented in order to ensure minimal negative impacts and maximum environmental benefits.
- It is assumed that due consideration will be given to the **discrepancies in the digital mapping** (development footprint layout/s against possible constraints), caused by differing software programs, and that it is understood that the ultimate/final positioning of the development footprint and all associated infrastructure will only be confirmed on-site with the Municipality, engineers, relevant authorities and specialist/s.
- The Department of Agriculture, Forestry & Fisheries (DAFF) **may consider the submission of Forestry Licence Application** necessary for allowing the destruction and pruning of protected trees and associated coastal thicket vegetation, as will be required for the development of this Facility and its associated infrastructure. The assumption is made that on review of this BAR, the DAFF will provide prompt confirmation and recommendations in this regard.
- The Breede Gouritz Catchment Management Agency (BGCMA) will consider the submission of the **General Authorisation Application** (by BlueScience Consulting) for the rehabilitation of the wetland and stormwater channels and use of treated effluent for irrigation & fire-fighting. The assumption is made that on review of this BAR, the BGCMA will provide prompt confirmation and recommendations in this regard.
- It is assumed that Stakeholders and Interested and Affected Parties notified during the initial public participation process will submit all relevant **comments within the designated 30-days** review and comment period on the DBAR, so that these can included in the FBAR, and be timeously submitted to the delegated Authority, the DEA&DP for consideration.
- Limitations and uncertainties often exist within the various techniques adopted to assess the condition of ecosystems.

Please refer to the Assumptions & Limitations indicated by the various specialist as part of their Reports, attached in Appendix G.

(c) Please describe the underlying assumptions.

It is assumed that once the developer has upgraded the stormwater channels (as recommended by the freshwater specialist & required by the Municipality), as well as upgraded the entrance off Long Street (with turning lanes), that this infrastructure will be maintained into the future by the Mossel Bay Municipality, as the landowner / relevant authority.

Recommendations made are based on professional opinion and best practise guidelines.

(d) Please describe the uncertainties.

It is uncertain whether or not the developer will be issued with a fuel retailer's licence, should Environmental Authorisation, Re-zoning and Water Use Authorisation are obtained.

(e) Describe adequacy of the assessment methods used.

It is believed that the abovementioned methodologies and assessment methods have adequately identified the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the proposed development and alternatives.

2. IDENTIFICATION, ASSESSMENT AND RANKING OF IMPACTS TO REACH THE PROPOSED ALTERNATIVES INCLUDING THE PREFERRED ALTERNATIVE WITHIN THE SITE

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

(a) List the identified impacts and risks for each alternative.

Alternative 1 (Preferred)	**Floodline** – insignificant impact of the infilling / raising of development footprint above floodplain on surrounding flood plain and neighbouring properties; - climate change influence on current floodlines and infill proposal into the future necessitates raising footprints above 4m contour line (0.5m above existing 1:100 year floodline). **Freshwater** - Loss of wetland habitat & associated terrestrial biota: Mitigated Low impact; - Impairment of water quality due to contaminated run-off from development: Mitigated Low impact. - Flow modification due to alteration to stormwater runoff from proposed filling station: Mitigated Low impact. **Groundwater –** contamination status of the site and potential contamination from spillage of fuel at surface and leakage from underground storage tanks and pipes on the hydrogeological regime, the adjacent Brak River and groundwater abstraction / use from surrounding area. **Estuarine -** Entire development site (all Layout Alternatives) fall within the Estuarine Functional Zone (EFZ) defined along 5m contour (5m above MSL), and functionally / effectively separated from eh estuary by Long Street. Therefore, the risk of contaminated stormwater (during construction or operation) reaching the estuary from the site is considered negligible and should not influence the influence the decision on which site to select nor should it affect the choice between the development and the no-go option. **Geological / Geo-technical** – risk of flooding and water-logging due to high water table below 1:100 year floodline; - deep excavations (between 1.5m and 3m deep) on adjacent properties. - Corrosive nature of groundwater - potential impacts on the stability of the slope to the south (4.5m contour line) - Seepage & stormwater from southern slope; - Erosion on site & siltation into estuarine environment. **Traffic** – impact in surrounding intersections / road network capacity; - queuing distance of vehicle entering site off Long Street **Socio-economic -** Impact on the GDP and Production; - Impact on Employment and Skills Transfer; - Impact on Household Income; - Impact on Sense of Place; - Impact on Safety and Security; - Impact on Rates and Taxes; - Impact on Surrounding Property Values; - Impact on Surrounding Filling Stations; - Impact on Improved Services to Customers; - Impact on Local Tourism Offering; - Impact on Community Upliftment; **Visual** – Visual intrusion / impact on surrounding area. **Heritage -** impact on heritage resources of cultural significance in landscape. **Noise –** impact of filling station activities, as well as those associated with the amphitheatre and children's playground to neighbouring residents.
Alternative 2: (Undesirable)	*Same as above.*

Alternative 3.1: (Eliminated)	----
Alternative 3.2: (Eliminated))	----
No-go Alternative:	- On-going disturbance & pollution associated with dumping (construction, household & garden waste), stockpiling of construction material & road aggregates, overnighting and maintenance of large vehicles (utility, construction & passenger) and invasion of alien vegetation. - Disturbance of natural & cultural 'sense-of-place' & visual character due to misuse and mismanagement of property. - No positive influence / benefits to community.

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

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

Note**: The EAP may decide to include this section as Appendix J to the BAR.* ***SEE APPENDIX J for Impact Tables

(c) Provide a summary of the site selection matrix.

Criteria	**Alternative 1 (Preferred)**	**Alternative 2**	**No-Go Alternative / Status Quo**
Site size & location to accommodate landuse	Excellent – directly off Long Street, adjacent to N2. Sufficient space for all development components / facilities, without significant impacts on remnant vegetation.	Adequate – positioning on Filling Station above the 1:100 year floodline reduces & restricts the size of area available for Recreational Park area. Higher impact on veg.	Poor - Degraded, misused, mismanaged and underutilised municipal land at entrance to Great Brak River.
Application Owned / Leased	Very Good – Two long-term leases approved	Very Good – Two long-term leases approved	Poor – not managed by landowner (Municipality)
Zonation	To be re-zoned for development	To be re-zoned for development	In-appropriate considering potential and position of property.
Landuse	Excellent - consistency with urban context. Optimal use of transformed platform while mitigating filling station position near floodline and avoiding sensitive vegetation.	Poor – positioning footprint above floodline does not allow for use of existing transformed platform. Footprint encroaches into remnant vegetation, wetland and sensitive slope.	Poor - Degraded, misused, mismanaged and underutilised municipal land at entrance to Great Brak River.
Site Access	Excellent – available with upgrade	Excellent – available with upgrade	Excellent – available without upgrade
Water & Sewerage Serviceability	Water: excellent – available without upgrade. Sewerage: Poor – need to provide own treatment facility.	Water: excellent – available without upgrade. Sewerage: Poor – need to provide own treatment facility.	Undeveloped - Not needed.
Electrical Serviceability	Excellent – connection point near property. Developer to supplement with solar.	Excellent – connection point near property. Developer to supplement with solar.	Undeveloped - Not needed.
Stormwater Serviceability	Acceptable – requires upgrade on	Acceptable – requires upgrade on	Undeveloped – Maintenance not prioritised.

	recommendation of specialists & requirement of Municipality.	recommendation of specialists & requirement of Municipality.	
Waste Management	Excellent – Capacity confirmed at regional landfill site now available.	Excellent – Capacity confirmed at regional landfill site now available.	Poor – illegal dumping uncontrolled or managed.
Environmental considerations	Excellent – use of transformed platform for building footprints, paving etc., avoidance of remnant vegetation, proposed rehabilitation of wetland & veg., upgrade of on-site stormwater systems etc.	Acceptable – Filling Station footprint encroaches into natural vegetation & near wetland & slope. Transformed platform to be used for paving & Craft Centre.	Poor – maintenance / management / rehabilitation of property by Municipality lacking & unlikely.
Heritage / Sense-of-Place / Historic / Cultural Significance	Excellent – no heritage resources to be impacted. Natural / cultural landscape character to be improved.	Acceptable – no heritage resources to be impacted.	Poor – maintenance / management / rehabilitation of property by Municipality lacking & unlikely.
Visual	Excellent – Position of Filling Station in middle of site allows sufficient visibility from adjacent roads. The visual intrusion & change in the sense of place that will result from the development will be improved. The village of Groot Brak will benefit from this development by gaining a visually attractive and useful amenity that also provided an entrance statement.	Not acceptable – Position of Filling Station above floodline limits visibility for road users, will intrude on the natural open area & proposed restaurant & convenience store will be more visually intrusive in views from residential erven on the slope to the south of the site and those on the south western boundary.	Poor – Misused, disturbed property unsightly at the entrance to the town of Great Brak River.

(d) Outcome of the site selection matrix.

The site selection of the Great Brak Filling Station development proposal (Preferred Alt.1) scored slightly higher than that of Alternative 2 and the No-go option.
All of the alternatives are permissible in terms of landownership, zonation, landuse, serviceability and access. The preferred development site / proposal has been revised and designed in response to the identified environmental, visual and socio-economic sensitivities and needs.
The No-Go / Status-Quo as a disturbed, misused, mismanaged and underutilised property is not considered to be ideal, considering the context at the entrance to the town of Great Brak River.

3. SPECIALIST INPUTS/STUDIES, FINDINGS AND RECOMMENDATIONS

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

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

Floodline Determination / Statement (Sept.2017) compiled by GorraWater (Retief Kleynhans)

- Risk of 'choking' / flooding of surrounding floodplain / neighbouring properties by raising of development footprints above 1:100 year floodline with infill – ***NEGLIGIBLE*** *for all alternatives*

Mitigation: Local stormwater must be addressed and managed through Stormwater Management Plan.

- Heightened flood risk due to higher sea levels and extreme rainfall events, resulting from Climate

Change – ***NEGLIGIBLE*** *for all alternatives.*

Mitigation: Development footprints below the 1:100 year floodline (2017 determination) should be lifted at least 500mm above the 1:100 year floodline (to 4m contour line) for human safety and avoidance of run-off contamination from fuel spills on forecourt surface area. This proposed raising will not impact on the flood line on neighbouring properties and other elements.

Freshwater Impact Assessment Report (May, 2018) & Addendum to Report (Sept.2018) compiled by BlueScience Consulting (Toni Belcher)

Impact: Loss of wetland habitat and associated biota:

The **depression wetland and drainage feature** along the western boundary of the site not deemed to be highly significant aquatic habitats and could be integrated into the stormwater management system established onsite. **Thicket habitat** considered of high sensitivity and ecological importance that should not be disturbed by the proposed development i.e. pockets of indigenous thicket associated with the foot of the slope and potentially the original drainage channel and that associated with the estuarine floodplain habitat.

Construction: The construction related activities have the potential to damage above-mentioned thicket habitat over the short term if the areas are not adequately demarcated as a no-go areas.

LOW *for Alternative 1 (Preferred) with mitigation.*

Development would be placed further away from the estuary but close to the small depression wetland and the thicket vegetation located at the foot of the steep slope to the south. The risks associated with the potential impacts on the estuarine ecosystem would be lower as the developed area would be 130m away from the top of bank of the estuary and outside of the area likely to be impacted by a 1 in 100 year flood, however **disturbance to the thicket vegetation at the foot of the slope and immediately adjacent to the developed area would be much higher**. Alternative 2 is thus likely to have a more significant impact than Alternative 1.

MEDIUM – LOW *for Alternative 2 with mitigation.*

Option 3 entails the construction of the filling station outside of the 1 in 100 year floodline with the additional facilities excluded. The option is thus similar to Option 1 & 2 but with a **smaller footprint as the additional features excluded**. This would then **exclude the opportunity for rehabilitation** of the wetland area **and control of alien vegetation** within the thicket vegetation at the foot of the slope but would have **very similar impacts**.

MEDIUM *for Alternative 3 (Eliminated) with mitigation*

Mitigation:

- Retain all indigenous trees & vegetation;
- Obtain DAFF permit if trimming of protected trees required;
- Thicket areas (southern slope & remnant pockets) should be **demarcated as a no-go zone** and no construction activities should be allowed take place within this area.
- A **development buffer of at least 10m** is recommended to protect wetland onsite.
- The depression wetland and the lower drainage feature can be incorporated into the **stormwater management system** for the site, and include that they be shaped and planted suitable indigenous sedges and rushes such as *Cyperus textilis* and *Isolepis prolifera* (rehabilitated) longer term improvement of the lower drainage feature. The advice of a suitably qualified aquatic ecologist or botanist should be sought to assist with the incorporation and rehabilitation of these aquatic features into the development of the site.
- The **alien invasive vegetation should be cleared**, with ongoing monitoring and management.

Operation: During the operation phase, there is the potential for an ongoing, low level of disturbance to the above-mentioned habitats due to the fact that the proposed filling station will be located immediately adjacent to these areas.

LOW *for Alternative 1 (Preferred) with mitigation.*

MEDIUM – LOW *for Alternative 2 with mitigation.*

MEDIUM *for Alternative 3 (Eliminated) with mitigation:*

- The thicket areas (southern slope & remnant trees) should be **retained and demarcated** / fenced off to ensure that access and trampling of these areas is limited.
- A **10m buffer area** between the developed area and the onsite aquatic features should be planted / rehabilitated with **suitable local indigenous plants**.
- No exotic and alien invasive plants for garden or landscaped areas.
- All **alien vegetation** throughout the property should be continually controlled.
- **Longer term maintenance** measures for the adjacent natural vegetation cover and aquatic features should be addressed in an approved rehabilitation and maintenance plan for the site.

Impact: Pollution & Siltation:

The surface water within the aquatic features in or adjacent to the site could be contaminated by the stormwater runoff from the developed areas.

VERY-LOW Negative *with mitigation for all Alternatives.*

Mitigation:

- During construction, necessary good **housekeeping measures** must be implemented as per EMPr to minimise the potential for contamination of surface water runoff:
  - Restrict development to low-lying, disturbed platform.
  - Restrict excavations, earthmoving and movement of vehicles to construction site – demarcation of no-go steep portions of site.
  - Install silt fences on downslope edge of site and/or excavations.
  - Minimise timeframes for earthworks as far as possible.
  - Re-vegetate, rehabilitate, brush-pack or mulch exposed areas where earthworks complete as soon as possible.
- The potential for groundwater contamination has been addressed through the design of the filling station in compliance with SABS SANS 10089-3 (2010) as well as the use of a **watertight underground compartment** into which the fuel tasks will be placed.
- It is also essential that **pollution prevention measures** should be put in place within the site to ensure that there is no risk of pollution spills or contaminated runoff entering the estuarine habitats.
- The **stormwater management plan** should ensure that the surface and subsurface flow from the developed area is contained onsite and mitigated within an onsite treatment system and then possibly discharged via the rehabilitated wetland area and/or drainage feature before discharging into the estuary.
- On site **oil and litter traps** should be included in the treatment measures for the stormwater runoff.

Impact: Alteration of Stormwater run-off:

The hardening of the surface areas within the proposed development area would increase and divert surface water runoff to the adjacent aquatic features. This could be expected to alter the character of the aquatic features on site. This however provides an opportunity to enhance the current highly modified or artificial features. Drainage at the site is in a north-easterly direction, towards the estuary however the gradient onsite is very low thus the potential for the runoff to have any significant negative impact on the estuary are low and can easily be mitigated.
The developed area would need to be infilled to minimise the risks associated with developing below the 1 in 100 year floodline. This could be expected to have a negligible impact on the flow and hydraulics of the associated aquatic ecosystems. The area in which the proposed filling station layout is proposed is however an area identified as having a high flood risk and should be adequately mitigated to ensure that no flood damage will occur in the event of extreme flood events.

LOW Negative *with mitigation for all Alternatives.*

Mitigation:

The **stormwater management plan** for the site in particular should ensure that post-development runoff from the site is adequately mitigated to minimise the impact on estuarine habitat. The depression wetland and drainage feature along the western boundary of the site could be integrated into the stormwater management system established onsite to ensure adequate mitigation. The **remainder of the site should be vegetated** to encourage infiltration or to reduce the velocity of surface water runoff as far as possible.

Groundwater Impact Assessment Report (Jan.2018) compiled by Parsons & Associates (Roger Parsons)

STATUS QUO / NO-GO Alternative: The site is located in a semi-rural area. Bitumen was previously stored on the site, but this poses little risk of contaminating the underlying aquifer. No visual or olfactory signs of contamination were observed during the digging of the trial pits (Paton, *per.comm*., 2017). Besides potential contamination by leaking sewer systems and the impact of garden irrigation and fertilization, no other obvious sources of contamination are apparent. The **aquifer is expected to be in near-pristine condition**.

Impact: Contaminating the underlying groundwater system during the operational phase on groundwater users:

Establishing a filling station could impact the underlying aquifer system if the underground storage

tanks leak or if pipes and joins were to leak. Leakage from underground storage tanks can go undetected for long periods of time, sometimes resulting in significant groundwater contamination in the near vicinity of the site. However, the absence of groundwater users in the vicinity of the filling station (and particularly downgradient of the site) and the likelihood of the resource never being develop for more than garden irrigation suggests groundwater users are not at risk if the proposed filling station were to be established. The minor classification of the aquifer supports this. Consequently the significance of any impact would be low, but with remediation the impact would be insignificant to groundwater users.

INSIGNIFICANT negative *after mitigation for all Alternatives.*

- *Mitigation:* **Industry norms** relating to the design, construction and maintenance of filling stations in general and underground storage tanks in particular should be adhered to. These are set out in the South African Bureau of Standards code SABS 089, SABS 1535 and SABS 1830.
- Regular groundwater monitoring by a qualified and competent practitioner should also be implemented. It is recommended **at least one monitoring boreholes be established** between the underground storage tanks and the Great Brak River, the exact position of which should be confirmed once the design of the filling station has been completed. The boreholes should be drilled to a **depth of about 10 m and should be sampled every six months**. The sampled groundwater should be analysed for total petroleum hydrocarbons (TPH), the BTEX compounds, polycyclic aromatic hydrocarbons (PAH), phenol and lead.

Impact: Contaminating the underlying groundwater system during the operational phase on the Great Brak River:

Undetected contamination from leaking underground storage tanks could impact the Great Brak River via contaminated groundwater discharging into the river – particularly during low tides. Alternative 1 is located 130 m from the bank of the river and Alternative 2 is 165 m distant. This difference is not considered material as it would only result in a time delay in the impact reaching the river. The implication of impacting the Great Brak River is at least of medium significance, given the importance of the estuary and the pressure that it faces (Anchor Environmental Consultants, 2012). Appropriate design and construction will reduce the risk of this happening while groundwater monitoring will allow for timeous intervention (corrective action, remediation). With remediation the significance of contamination occurring would be reduced to low / insignificant.

Mitigation: Environmentally acceptable industry design, construction and operation norms for filling stations;
Implementation of regular pressure testing and six monthly monitoring of groundwater.
Should any sign of groundwater contamination be detected, the relevant authorities are to be notified and appropriate remedial action implemented.

INSIGNIFICANT – LOW negative *after mitigation for all Alternatives.*

Impact: Fuel & oil spills contaminating the underlying groundwater system and groundwater users during the operational phase:

Periodic spills of small quantities of fuel at surface also do not pose a significant risk to the underlying groundwater system or the river. By capturing spilt fuel before it infiltrates into the subsurface and preventing it entering the stormwater systems removes the risk of contamination of both surface and groundwater systems. This would reduce the significance of the impact from low to insignificant.

Mitigation: Environmentally acceptable industry design, construction and operation norms for filling stations;
Implementation of regular pressure testing and six monthly monitoring of groundwater.
Should any sign of groundwater contamination be detected, the relevant authorities are to be notified and appropriate remedial action implemented.

INSIGNIFICANT negative *after mitigation for all Alternatives.*

Estuarine Statement (Sept.2017) compiled by Anchor Environmental (Barry Clark)

Although the proposed development site (Alternatives 1 and 2) are indeed located within the EFZ (below the 5m contour line) of the Great Brak estuary, the site is separated from the estuary by a major highway (Long street) that leads from the N2 into the town of Great Brak. The development site is thus effectively isolated from the rest of the EFZ and the Great Brak Estuary itself and is **no longer functionally linked with the estuary**. Estuarine biota are unlikely to be able to use this site and the risks of contaminated stormwater reaching the estuary from the site is minimal except possibly during a major flood (would need to be large enough to cover Long street) or if a tanker supplying the fuel

had an accident on the road before reaching the site. **Potential impacts** associated with the development of a filling station at either of the two proposed development sites (Alternative 1 and 2) on the Great Brak estuary are likely to be **negligible** and should not influence the decision on which site to select nor should it affect the choice between the development and the no-go option.

Geo-technical Report (May 2017) & Letters (2017 & 2018) compiled by Outeniqua Labs (Iain Paton)

- Proposal to **raise preferred development site above 1:100 year floodline** with suitable infill material supported.
- Site underlain by approx. 1m imported, uncontrolled fill; brown topsoil layer; **alluvial/estuarine sand & water table**. Some differential settlement/variation can be expected in alluvial deposits. The **upper 1m of soils** is uncontrolled fill (mainly gravel, some rubble & minor rubbish) that is **potentially useful as a general filling material** (assume G7) and can be stripped off, selectively stockpiled and replaced under foundations. Soil conditions were generally suitable for the **founding of light structures**, requiring only conventional compaction to minimise settlement.
- **Groundwater table** at a depth ranging from 2.2m below GL (north side) to 2.8m (south side). Excavations to a depth of 3m are classified as "Soft" in terms of SABS 1200D. Sidewalls of **deep/steep-angle excavations will collapse** once the water table is reached due to the cohesionless nature of the soil. Deep excavations for USTs may be hampered by the water table, requiring dewatering.
- **Soil** has a high conductivity due to dissolved salts and may be **corrosive** towards buried metallic fittings.
- Development should not encroach further south than the **4.5m contour line**, as this may have potential impacts on the stability of the slope to the south.
- Seepage & stormwater from southern slope - **manage stormwater via existing drainage / aquatic features on and beyond property.**

Recommendations:

- **Uniform compaction** is important to mitigate differential settlement.
- All temporary excavations below 1.5m will require effective **dewatering and lateral support**, such as steel I-Beams and timber lagging with cross bracing. Deep excavations must be designed and supervised by the engineer. The potential effect of **dewatering on neighbouring structures** should be considered by the engineers. **Excavations between 1.5m and 3m deep, should not take place within 10m of the boundaries**, as this could affect stability of adjacent properties. Any development within 60m of the national road reserve requires special authorisation from SANRAL.
- Seepage & stormwater from the southern slope should be diverted around the eastern and/ western sides of the site into existing stormwater channels.

Traffic Impact Assessment (TIA Aug.2017) compiled by SMEC Consulting Engineers (Tiaan Meyer)

- Shared access / right-of-way for Police Station & Erf 4788 off the MR348 (Long Street) must remain. Upgraded access / Right-of-Way to benefit Police Station & Filling Station.
- Due to the site's close proximity to the N2 highway, a fair amount of vehicles will be attracted for either refuelling or a visit to the convenience store. It is assumed that 8% of the N2 light vehicle traffic will be attracted to the filling station and correspondingly, 11% of the heavy vehicle traffic counted on the N2.
- The large amount of traffic, attracted by the proposed filling station, turning in to the proposed filling station's site, from the MR 348 through road**, requires both a dedicated right turn lane (for East travelling vehicles) and a dedicated left turn lane (for West travelling vehicles)**.
- The queue distance of a minimum of 20m should be set out at existing entrance for queuing vehicles at the stop, wanting to enter the through road.
- The impact of the traffic attracted from the surrounding road network has **little to no effect on the Level of Service (LOS) of the nearby intersections.** No upgrades, other than the turning lanes at the access, are required for this development.

Socio-Economic Impact Assessment (Feb.2019) compiled by Urban-Econ. (Marcel Theron)

- Given that the total fuel sales demand for the Filling Station development (318 366lt per month) exceeds the industry benchmark of 300 000 litres per month, it can be concluded that the proposed **development would be viable**.
- The construction and operation of the proposed development for either Alternative 1 or 2 will have an **overall positive impact** within the local and regional economies. Although construction and operation of the proposed development with either **Alt. Layout 1 or 2 will have the same overall positive and negative impacts and mitigation measures**, alternative 1 has been stated as

the preferred alternative by the developer.

It is important to note that in terms of the need and desirability of the proposed filling station within the development, its importance lies in the following points:

- The identified site is located within the urban-edge of Great Brak River at an already well-established intersection, thus providing vehicles easy and safe access.
- While the TOTAL filling station is within close proximity of the proposed development, it is located on the opposite side of the N2, which isn't convenient to residents of Great Brak River.
- The proposed filling station will cater to only residents within the Great Brak River area and transient traffic travelling up the N2 towards George.
- Healthy competition among the existing and proposed new filling stations will ultimately benefit the consumers without adversely impacting on the long-term sustainability of the existing stations.
- The sense of safety of filling up closer to home will appeal to many residents in the area, while provision of a convenience store & restaurant will add additional convenience to residents in the immediate area.
- The addition of a new filling station will increase consumer choice.
- Short term construction-related employment & permanent operation-related employment opportunities will be provided.
- The establishment of the proposed development will potentially draw in tourism and investment.
- The Craft and Skills development centre would provide the means to uplift the community through the creation of a space where one can learn skills, craft products, as well as sell their artisan goods. The aim is to support local entrepreneurs who don't have the capability to enhance their work capability. Additionally, the recreational area will provide the means for local musicians to showcase their music through concerts at the amphitheatre, while local artists could display their artwork.
- Support of local community upliftment NGOs and partners.

To conclude, there is no reason why the preferred alternative (Alternative 1) should not be accepted considering that there no difference in significance when comparing the two alternatives and generally the additional filling station could have a ***positive socio-economic impact on the local community.***

Impact / Evaluation Criteria	Mitigated during Construction for both Alt. 1 & Alt. 2	Mitigated during Operation for both Alt. 1 & Alt. 2
GDP and Production	**Medium Positive**	**Medium Positive**
Employment and Skills Transfer	**Medium Positive**	**Low to Medium Positive**
Household Income	**Low to Medium Positive**	**Low to Medium Positive**
Sense of Place	**Low Negative**	**Low to Medium Positive**
Safety and Security	**Low Negative**	**Low Neutral**
Rates and Taxes	**Medium Positive**	**Medium Positive**
Surrounding Property Values	N/A	**Medium Positive**
Surrounding Filling Station	N/A	**Neutral to Low Negative**
Improved Services to Customers	N/A	**Low to Medium Positive**
Improved Local Tourism Offering	N/A	**Medium Positive**
Community Upliftment	N/A	**Medium Positive**

Impact	Mitigation during Construction	Mitigation during Operation
Impact on Production and GDP	• The developer should encourage the EPC contractor to increase the local procurement practices and employment of people from local communities as far as feasible to	• The operator of the proposed development should be encouraged to procure materials, goods and products required for the operation of the facility from local

	maximise the benefits to the local economies.	suppliers to increase the positive impact in the local economy as far as possible.
Impact on Employment	• Establish a local skills desk in the study area to determine the potential skills that could be sourced in the area. • Recruit local labour as far as feasible. • Sub-contract to local construction companies where possible. • Knowledge sharing and on-the-job-training should be viewed as a prerequisite, where feasible, for all service contractors/service providers working on the development and employing local labour.	• Where possible, local labour should be considered for employment to increase the positive impact of the local economy. • If possible, goods and services should be procured from local small businesses, this will stimulate indirect job creation.
Impact on Household Income	• Recruit local labour as far as feasible to increase the benefits to the local households • Sub-contract to local construction companies where possible • Use local suppliers where feasible for goods and services	• Where possible, the local labour supply should be considered for employment opportunities to increase the positive impact on the area's economy • When feasible local procurement of goods and services should be implemented to further increase the benefit of local communities.
Impact on Sense of Place	• Adhere to mitigation measures proposed by visual and traffic specialists	• Adhere to mitigation measures proposed by visual and traffic specialists
Impact on Safety and Security	• Set up a recruitment office in the study area and adhere to strict labour recruitment practices that would reduce the desire of potential job seekers to loiter around the properties in hope to find temporary employment. • Negotiate terms and conditions that would guide construction activities on the properties as well as the behaviour and conduct of the construction crew. • Manage workers to ensure that they are only on site during reasonable work hours. • Control the movement of workers between the site and areas of residence to minimise loitering around the proposed facility by providing scheduled transportation services between the urban areas and the construction site. • Assign a person to deal with complaints and concerns of the affected parties.	• Assign a person to deal with complaints and concerns of the affected parties. • Mitigation measures detailed for the construction phase would assist with mitigating the potential safety and security issue during the operation phase.
Impact on Rates & Taxes	None foreseen	None foreseen
Impact on Surrounding Property Values	• Adhere to mitigation measures proposed by visual and traffic specialists	• Adhere to mitigation measures proposed by visual and traffic specialists
Impact on Surrounding Filing Stations	N/A	None foreseen
Impact on Improved Services to Customers	N/A	None foreseen

Impact on Local Tourism Offering	N/A	None foreseen
Impact on Community Upliftment	N/A	None foreseen

Visual Statement (Sept.2017) & Addendum to Report (Aug.2018) compiled by Cave Klapwijk & Associates (Alan Cave)

- Visual intrusion of the proposed Filling Station is limited (**low significance**) due to elevated N2 and the site position visually screened by existing vegetation. The houses on the top of the southern slope look over and towards the NW of the site and therefore will not have the Filling Station as intrusive in their views northward over the river estuary.
- The 12m high advertising sign will have the backdrop of the southern hill & the eastern road embankment as a backdrop i.e. it will not be seen in silhouette against the horizon. The advertising pylon will be in **keeping with the scale & setting** of the surrounding area, at the main entrance to the village of Great Brak River, and will be visually compatible with the sense of place and the street scene of Long Street.
- **Sense of place will be minimally altered & potentially improved** by the introduction of the Filling Station provided that quality, un-intrusive lighting design is implemented (NO high pressure sodium or mercury vapour flood lights or any up lighting of walls or landscape features); and that the maintenance of a well-planned planting scheme that includes the retention of most of the existing trees, shrubs and grown cover will further enhance the visual quality of the site.
- The scale of the structures namely the forecourt and Filling Station main building are not out of place within the surrounding houses and given that these are placed to the back of the property from the Long Street boundary, which reduces the development's visual prominence in views toward the site.
- The **visual intrusion of the Craft & Skills Centre units** in the setting is **negligible** but they add an interesting element to the development in views downward from the higher land form to the south. North bound traffic on the N2 will barely notice them although vehicles using the off ramp will have a clear view of Skills Centre.
- The proposed **recreational park / picnic area will improve the view** of this area from the house on top of the southern slope, which has received little attention or maintenance over time. The existing houses adjacent on the western boundary of the park will look onto the area. However, the proposed screen planting, existing walls and security fencing will obscure the view of the park area. The Picnic area and park will enhance the visual quality of that area, provided that it is maintained and secured effectively.
- The Filling Station development will be **an improvement and have a positive effect** on the village of Groot Brak, as it will provide a visually attractive and useful amenity. This revised Alternative 1 will be a positive visual element that replaces the current undeveloped site and therefore this proposal is supported. Both Alternative 2 and 3 will intrude on the natural open area (indigenous vegetation & seep) and the proposed restaurant and convenience store will be more visually intrusive in views from some housed on the slope to the south of the site and those on the south western boundary. The **Alt.2 & 3 alternatives are therefore not supported**. The revised Layout, Alternative 1, is preferred from a visual point of view as it improves the sense of place without being as intrusive as the other two layouts.

Recommendations / mitigations:

- The **existing vegetation** within & surrounding site boundary **should be retained** wherever practical. **Additional planting along the northern boundary** could totally screen the Craft & Skills Centre units from Long Street and river area.
- The columnar sign should be located at the NE corner of the site and approved by SANRAL & Provincial Roads Dept. The sign should be predominantly dark in colour e.g.mid grey or blue grey (light colours such as white, yellow or cream will be visually intrusive). The sign could be lit with simple strips of neon tubing rather than being floodlit from below.
- Lighting of the forecourt and the convenience store should be downwards and not upwards. The source of the light should also be screened from view.
- The colour of the flat roofed forecourt should be grey and the pitched roof of the convenience shop should be chosen from the colours of roofs in the residential area adjacent to the west of the site. Terracotta is the most frequently used colour (no white).
- The site should be securely fenced in the areas where random access is not necessary or required.
- The stormwater drainage channel on the western boundary should be visually compatible with

the curvilinear design of landforms and pathways, and therefore should be remodelled to have gently sloping sides that visually represent a natural stream through the area.

Heritage Background Information Document (BID Aug.2018) compiled be Perception Planning (Guillaume Narainne)

The revised / expanded Filling Station development proposal would **not impact on any heritage resource of cultural significance** and that no further heritage-studies would therefore be warranted in this instance.

Recommendation:
The **Milkwood trees** located at the centre of the study area should be **preserved and incorporated** into the recreational park.

4. ENVIRONMENTAL IMPACT STATEMENT

Provide an environmental impact statement of the following:

(i) A summary of the key findings of the EIA.

The entire development site in within the Estuarine Functional Zone (below the 5m contour) of the Great Brak River / Estuary. However, it is effectively cut-off / separated from the Estuary by Long Street, thus reducing any risks of contamination reaching the estuary to negligible (Clark, 2017).

The entire site below the 4.5m contour is 'developable' from a geo-technical perspective. The in-situ fill material is suitable for use as infill / compaction as sublayers. Constraints are the high water table and corrosive nature of the groundwater (on metal). Excavations will require lateral support and de-watering and a 10m buffer from neighbouring properties for excavation deeper than 1.5m. The vegetated southern slope should be not be encroached on (i.e. Alt. 2 not desirable) and stormwater seepage must be managed.

The preferred Alternative 1 Layout / development proposal has been designed to fulfil the development potential of the site and cater to the community and environmental needs of Great Brak River, without resulting in any significant negative impacts. In fact, the preferred development proposal will have an overall positive impact on the environment, sense-of-place, Great Brak community and tourism. The preferred layout has also been designed to avoid / accommodate all site constraints (building line, servitudes, slopes) as well as identified sensitive features (stormwater drainage channels, degraded wetlands and remnant indigenous vegetation, including protected Milkwood and Yellowwood trees).

The potential positive or mitigatory impacts of moving the main filling station footprint above the 1:100 year floodline (Alternative 2 Layout), are far outweighed by the potential negative impacts it will have on the remnant vegetation (natural sense-of-place), as well as slope hillside and wetland in this area.

The Preferred Alternative 1 Layout has been positioned to make use of as much of the existing transformed platform of the property as possible, while staying as close to / above the 1:100 floodline without jeopardising its visibility to potential customers / surrounding road users. The proposal to raise the floor level of the footprints on / below the 1:100 floodline (3.5m contour) to above the floodline and to approx. the 4m contour will have negligible impact on the existing floodline levels or neighbouring properties, and will effectively mitigate any future flooding risks associated with Climate Change (Kleynhans, 2018).

From traffic perspective the existing access point off Long Street must be retained (registered 'right-of-way' servitude to Police Station) and the proposed upgrade by the development will benefit both properties. Other than the need to develop dedicated left & right turning lanes at entrance off Long Street (widening of 3.5m on either side for a max. 20m queuing distance), no other impacts on surrounding road network anticipated (SMEC, 2017).

From a visual perspective the proposed development, with its intended rehabilitation and management of the property, is likely to be an improvement on the current visual landscape. The preferred Alternative 1 layout is supported, while Alt.2 & 3 layouts are not, due to their greater encroachment on vegetation on site. Mitigation measures focus on colour and lighting of the development features, as well as the need to retain and plant indigenous vegetation to serve as screens.

From a Socio-Economic perspective, the proposed development is considered to be viable and desirable in the context of Great Brak River. It is likely to have overall positive impacts of the local

economy and well-being of its community. These impacts will be enhances should the use of local labour and procurement of local goods and services be implemented.

The proposed development is to be partially self-sustainable, in that it is to treat and re-use all wastewater (sewage & greywater) generated on the property, as well as make use of solar energy to supplement the municipal electrical supply. Pollution control, water- & energy-saving technologies are to form and integral part of the design / development, while waste minimisation and pollution control are to form an integral part of operation.

(ii) Has a map of appropriate scale been provided, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers?	***YES***	~~*NO*~~
(iii) A summary of the positive and negative impacts that the proposed development and alternatives will cause in the environment and community.		

See Section G(3) above.

5. IMPACT MANAGEMENT, MITIGATION AND MONITORING MEASURES

(a) Based on the assessment, describe the impact management, mitigation and monitoring measures as well as the impact management objectives and impact management outcomes included in the EMPr. The EMPr must be attached to this report as Appendix H.

Impact Mitigation / Management Outcome	Impact Management Actions / Measures	Responsibility / Monitoring
Maintain environmental control	• A suitably experienced Environmental Control Officer (ECO) for the construction phase of the development, before commencement of any land clearing or construction activities to ensure that the mitigation/management measures contained in the EMP are strictly implemented to ensure compliance with the provisions of the EMP. • Regular monitoring and auditing of quantifiable aspects of the Filling Station operations should be implemented in order to ensure that the facility attains the expected level of sustainability.	Developer
Reduce risk of flooding	• The floor-levels of development footprints below the 1:100 year floodline (2017 determination) should be lifted at least 500mm above the 1:100 year floodline (to 4m contour line) for human safety and avoidance of run-off contamination from fuel spills on forecourt surface area.	Developer & Contractor
Avoid petro-carbon pollution / contamination of stormwater and groundwater.	*Underground fuel tanks* must be installed above the 1:100 year floodline on the property, be placed within a sealed / watertight containment and comply with the relevant standards for design, construction and maintenance of filling stations and USTs (South African Bureau of Standards, SANS 089, SANS 1535, and SANS 1830). o Four sampling wells must be installed around underground fuel tank area and regularly monitored. o At least one monitoring boreholes be established between the underground storage tanks and the Great Brak River, the exact position of which should be confirmed once the design of the filling station has been completed. The boreholes should be drilled to a depth of about 10 m and should be sampled every six months. The sampled groundwater should be analysed for total petroleum hydrocarbons (TPH), the BTEX compounds, polycyclic aromatic hydrocarbons (PAH), phenol and lead. *Stormwater management in Forecourt:* Stormwater run-off from the forecourt dispensing area must be separated from stormwater run-off from the remainder of the facility. Uncontaminated rain run-off must be directed away from the forecourt canopy into the stormwater / rain capture / storage system or drainage channels. o Prevent rainwater entering Forecourt area: The forecourt area should be covered with a roof that has an overhand of at least 10°. The hard-surfaced forecourt floor should have minimum slope of 2%, allowing any rain or other surface water (potentially contaminated with hydrocarbon pollutants) to drain towards central inlets linked to the sewage treatment system, and regular checks must be done for leaking roofs or stormwater pipes that may be discharging water onto the forecourt or into the bunded area. o Both forecourt & fuel delivery areas must be bunded with impermeable material to prevent run-off & check regularly for leaks. Forecourt stormwater system must be fitted with separator & sump to	Engineer, Contractor, Developer & Operator

	intercept hydrocarbon pollutants (petroleum & oil). Water from sump must be directed into the on-site sewage treatment system. Oil retained in separator must be emptied once the level reached and collected by registered service provider and disposed of at a suitable facility. o Forecourt separator must be well maintained & regularly checked to ensure that it is functioning effectively; o All cleaning and washing of vehicles should be confined to the bunded forecourt area. Alternatives to hosing down of the forecourt should be considered: sweeping or vacuuming the area, using absorbent material and water-free solvent to remove grime & to keep the premises clean. *During Operation:* o Regular monitoring of fuel levels will ensure early detection of leakage; o Electronic gauges and / or probes must be regularly checked and maintained; and o Any indication of leakages must be directed to the relevant management structure immediately. The contact details of the responsible individual must be easily available to the relevant personnel. o Fuel deliveries pose the highest risk period for large scale accidental fuel spills. Extra vigilance by both staff & the delivery personnel must be observed: o During fuel deliveries the tanker driver must be present at all times; o The underground storage tanks and the delivery tanker must be fitted with emergency cut-off switches; o Vapour recovery equipment (if available) should be implemented to avoid air pollution & to minimise fuel loss; o Tankers must off-load in the forecourt containment area (bunded area) where land or storm water pollution can be minimized. Spill containment must be available nearby in the event of an accidental spill; o Tankers must be maintained and regularly serviced to ensure that no components leak or are damaged. The fuel station operator should be able to direct queries regarding the state of the tankers to the relevant company; and Adequate Health and Safety mechanisms / protocols must be in place & implemented to prevent spills, fire and health emergencies and crime incidents: *Health incidents:* o Designated staff must be trained in first aid techniques; o All new staff must be given basic first aid training as part of induction training; o First aid kits to an acceptable standard must be readily available; o Contact details for the nearest doctor and hospital must be readily available and clearly visible. *Crime incidents:* o Crime incidents: Contact details for the nearest police station must be readily available and clearly visible; o All crime incidents should be reported with the nearest police station; o Ask customers to move away from the problem area & lock all pumps as soon as possible.	

	Spills & Fire: o The owner/operator of the filling station must inform the George office of the Western Cape Dept. of Health and the Municipal Health Services of the Eden District Municipality (Mossel Bay office) of any pollution that may occur; o Emergency procedures for spills & contact details of emergency personnel must be clearly defined & easily visible to both staff and members of the public. o Properly equipped & clearly marked Spill kits & Fire-fighting equipment should be strategically place and maintained on site. o Spill prevention should be ensured by adequate bunding and/or drainage of forecourt.	
Minimise air pollution / emissions	Fuel vapours & exhaust fumes are a source of air pollution at a service station. Awareness signage must inform visitors to switch off vehicles when stopped. Fuel vapours from the facility can be managed: • Fuel nozzles should be fitted with cut off mechanisms once the back pressure reaches a certain level indicating a full tank; • Underground tank seals must be regularly checked to ensure good condition. Caps must be appropriately sealed; • Vent pipes must be fitted at the fuel storage tanks to capture fuel fumes and must be constantly monitored to ensure that they are working effectively.	
Minimise noise / nuisance	*During Construction:* • Construction activities must be confined to normal working hours (08:00 - 17:00 on workdays & 08:00 to 14:00 on Saturdays • Provide baffle and noise screens to noisy machines as necessary; • Provide absorptive linings to the interior of engine compartments; • Ensure machinery is properly maintained (fasten loose panels, replace defective silencers); • Switch off machinery immediately when not in use; • Reduce impact noise by careful handling of materials and machinery. *During Operation of Filling Station:* Every effort should be made to reduce noise nuisance from the Filling Station, especially during early mornings or late night: • Avoid loud background noise that is clearly audible away from the forecourt; • Secure drain grates to avoid noise caused by vehicles driving over them; • Avoid receiving fuel and other deliveries at night. Noise from the Recreational Park must be controlled by: • A vegetated, raised berm should be developed along the western boundary to limit noise from the children's playground and amphitheatre reaching neighbouring residential erven; • Performances / presentations by musicians and educators at the Amphitheatre must be controlled and restricted to day-time trading hours associated with the Restaurant.	
Water conservation /	• Install on-site wastewater treatment package plant & re-use treated effluent for irrigation & fire-fighting	Engineer,

minimise use of potable municipal water supply	purposes. • No potable water to be used for irrigation. Irrigation system is fitted with solar pumps. • Rainwater tanks should be installed to collect run-off roofs to flush toilets and urinals and/or irrigation use. • Select & install water saving technologies (low-flow faucets and/or aerators, dual-flush toilet systems, insulation pipes & geysers etc.) • Implement water & energy saving methodologies (irrigate with rainwater & treated effluent, water-wise landscaping etc.) • Gardens may only be landscaped and maintained with locally occurring indigenous plant species. Mulch must be added to soil to increase water-holding capacity.	Contractor, Developer & Operator
Energy conservation / reduce use of municipal electrical supply	• Install solar PV system on Forecourt roof to supplement municipal electrical supply. • Design should take building angles into account, which will allow natural cooling and heating effects to take place. Buildings should be adequately insulated so as to avoid dependence on high energy heating and cooling systems. Use of skylights in convenience centres can minimise the need for lighting during the day. • Install insulation & ventilation on heat generating equipment. • Water heating systems should save water and energy. • Lighting fixtures should be LED or compact fluorescent on all internal and external lighting, including street lighting and advertising signage. • Canopy lighting uses large quantities of electricity. Spot lighting to be used at required places (e.g.at fuel pumps); • Evaporative cooling systems should be considered over air conditioning appliances. • Install electrical usage meters to measure and monitor consumption of municipal supply. *During Operation:* • All electrical equipment should be correctly maintained and checked for efficiency to ensure optimal use of energy. • Continued maintenance & monitoring of compressed air system is recommended. This will ensure that leaks are detected promptly, thus avoiding unnecessary running of compressors & the additional electrical use; • Switch off lights and equipment when they are not required. Installation of energy efficient lighting, fridges and other equipment wherever possible is recommended;	Engineer, Contractor, Developer & Operator
Protect remnant indigenous vegetation / habitat	• Retain remnant indigenous vegetation, especially trees, as far as possible. • Demarcation of work & no-go areas during construction. • Demarcate & protect remaining trees beyond development footprint from harm. • Rescue and safely move fauna species from development site. • Clearance of vegetation for fenceline installation, must not exceed the allowable 1.5m on either side of the property boundary;	ECO, Contractor
Rehabilitate / enhance	• Control alien invasive vegetation; • Remove construction waste & debris from entire property.	Contractor, Developer,

remnant habitat	• Protect remnant indigenous & protected plants species; • Landscape / rehabilitate remnant vegetation, degraded wetland and stormwater channel (on western boundary) with only locally occurring indigenous plant species; • Environmental Induction of construction staff & awareness documentation available to future visitors.	Landscaper
Obtain necessary approvals for disturbance to protected plant species	• A **Forestry permit / licence should be obtained from DAFF** for the clearing or trimming of any protected trees, and associated coastal thicket vegetation, that would be lost or damaged due to the development, before construction commences. Pruning of Milkwood trees must be undertaken by a professional feller, under the guidance of the appointed ECO, to avoid miscommunication / misinterpretation of the implementation of the Licence.	Developer & ECO
Obtain necessary approval for rehabilitation of aquatic features & irrigation with treated effluent.	• Obtain General Authorisation for water use from BGCMA prior to construction / rehabilitation activities.	Developer
Protect remnant fauna populations	• Fence property with palisade fencing, with no electrical strands 20cm for ground, to allow continued passage of small fauna through the site. • Safe links for animals and organisms, to the riverine habitat should be secured and maintained; • Rescue and safely move fauna species from development site. • Clearance of vegetation for fenceline installation, must not exceed the allowable 1.5m on either side of the property boundary; • Excavations must be closed as soon as possible, to avoid becoming traps for small fauna, or being inundated with water during high rainfall events • Environmental Induction of construction staff & awareness documentation available to future visitors.	ECO, Contractor, Developer, HOA
Protect & record occurrence of heritage / archaeological / palaeontological resources	Should any remains including (but not limited to) graves, fossil bones, fossil shells, coins, indigenous ceramics, colonial ceramics, marine shell heaps, stone artefacts, bone remains, rock art, rock engravings or any antiquity be uncovered during earthworks, activity in the area must cease immediately & the site may not be disturbed further until the necessary approval has been obtained from Heritage Western Cape.	Contractor, ECO & Developer
Reduce visual impacts of development	• Development footprint must be limited / restricted to the existing transformed platform as far as possible. • Design building architecture to include dark / earth-colours to coincide with surrounding natural landscape. • Lighting should be downward facing and directed away from natural features. • Screening with indigenous trees along property boundaries. • Raised berm along western boundary must be planted with large indigenous trees and vegetation.	Architect, Developer, Contractor
Protect topsoil & avoid erosion / downslope siltation	• Restrict development to low-lying, disturbed platform. • Minimise timeframes for earthworks as far as possible. • Re-vegetate, rehabilitate, brush-pack or mulch exposed areas where earthworks complete as soon as	Contractor

	possible. • Topsoil excavated during construction must be stockpiled & protected (silt fences below), for use in post-construction landscaping & rehabilitation. • Silt-fences or sandbags must be installed downslope of excavations & stockpile sites to prevent erosion & siltation of downslope environments. • Restrict excavations, earthmoving and movement of vehicles to construction site – demarcation of no-go steep portions of site. • Excavations must be closed as soon as possible, to avoid being inundated with water during high rainfall events (which could lead to erosion on steep slopes); • Carry out stormwater modelling & drainage design prior to construction & implement best-practice in stormwater management. • Install rainwater capture systems. • Erosion channels that develop on slopes must be backfilled, compacted and restored. • Traffic and movement over stabilised areas shall be restricted and controlled. • Mulch, re-vegetate / rehabilitate all disturbed areas as soon as possible to encourage infiltration and stormwater control.	
Prevent general pollution of environment	• Implement cement batching & cleaning as per EMPr; • Implement integrated waste management; • Disposal of waste may only to done at registered / licenced waste disposal / treatment facilities. • All outside bins and waste storage containers must be covered, tip-proof, weatherproof and scavenger proof. • Any temporary waste disposal and storage area (where the Facility's general waste is temporarily stored for pick-up by the Municipality) must be bunded with drain connection into the on-site sewage treatment system (to prevent waste leachate from entering stormwater run-off) and fenced off (to prevent wind-blown litter). • No burning or dumping of household, garden or construction waste may take place anywhere on the property and especially not in the open space areas. • Control erosion, carry out stormwater modelling & drainage design prior to construction & implement best-practice in stormwater management.	Contractor, Engineer
To ensure an integrated waste management approach, that minimise waste impacts.	• Facility should sort all general waste for recycling & enter into service agreement with a local recycling organization for collection of these materials. • Petroleum products should be handled, stored and disposed in the correct manner. • Both the garden and biodegradable refuse must feed into the Municipal waste handling system and may not be disposed of or burnt at the site, or any nearby location. • Temporary waste storage area should be positioned for efficient waste collection and be fenced / walled to prevent animal access.	Engineer, Contractor, Developer & Operator
Improve local economy	• Recruit local labour as far as feasible to increase the benefits to the local households • Sub-contract to local construction companies where possible • Use local suppliers and small businesses where feasible for goods and services	Engineer, Contractor, Developer &

	• Knowledge sharing and on-the-job- training should be viewed as a prerequisite, where feasible, for all service contractors/service providers working on the development and employing local labour.	Operator
Reduce visual intrusion / enhance sense of place	• The **existing vegetation** within & surrounding site boundary **should be retained** wherever practical. **Additional planting along the northern boundary** to screen the Craft & Skills Centre units from Long Street and river area, and along western boundary to screen residential erven. • Non-intrusive lighting must be implemented (no pressure sodium or mercury vapour floodlights) – lighting must be downward – no upward lighting of adverting boards, built of natural features. • Building and roof colours should match / blend with natural context i.e. earth-colours, blues and greys (not whites, yellows or creams).	Engineer, Contractor, Developer & Operator
Prevent / reduce fire risk.	• Make use of treated effluent for fire-fighting purposes. • All staff must be trained & informed of fire risk (highly flammable & combustible materials i.e. fuel and thatched roofs) & the procedures fire firing & first-aid. • Contact details for local Disaster Management Services & Fire Department must be clearly visible to both staff and members of public.	Engineer, Contractor, Developer & Operator
Mitigation dust generation	• Control movement of construction vehicles and removal of vegetation - adhere to speed limits & minimisation of haul roads, dampen haul roads during dry, windy periods. No potable water or seawater may be used for damping haul roads. • Exposed stockpile materials must be adequately protected against wind (covered). • Planting of short term vegetation to prevent dust such as rye grass or even covering with grass sods which can later be used for landscaping. No invasive alien vegetation may be used as a vegetative cover on stockpiles. • Trucks bringing in materials must be covered.	Contractor

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

The CBA objectives require the maintenance of a natural or near-natural state, with no further loss of natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.
It is submitted that the preferred development proposal is to adhere to / implement this objective in that only the existing transformed / disturbed areas of the site are to be developed; the remnant natural habitats are to be retained and rehabilitated as far as possible, and the developed has been designed to be as sustainable / sensitive as possible.

The ESA2 objectives restore and/or manage / minimize impact on ecological processes and ecological infrastructure functioning (especially soil and water-related services) will be adhered to through the intended rehabilitation and management efforts included as part of the development proposal. The avoidance of the southern slope, rehabilitation of remnant natural features and design and placement of the fencing will allow for faunal movement.

(c) Describe the ability of the applicant to implement the management, mitigation and monitoring measures.

The applicant has developed several Filling Stations throughout the country, and thus has vast experience in industry best practice and the implementation of environmental management, mitigation and monitoring measures in compliance with various authorisations related to the development and operation of Filling Stations and their associated infrastructure.

The Applicant is capable of, and willing to, fulfil / implement required management, mitigation and monitoring measures given his investment in the area.

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

Financial provision will need to be made for:

- Installation and monitoring of the groundwater monitoring borehole;
- Application will need to be made to the Department of Agriculture, Forestry & Fisheries (DAFF) for a Licence to remove, trim / damage protected trees / thicket vegetation found within the construction footprint, as well as possible condition to plant back an offset number of protected trees onto the property as part of the rehabilitation efforts.
- Rehabilitation / upgrade of degrade wetland and stormwater drainage features as recommended for the specialist and required by the Municipality (stormwater channels).
- Upgrade of entrance off Long Street – installation of dedicated left & right turning lanes.
- Removal and follow-up management of alien vegetation.
- Creation of vegetated raised berm as a visual / noise screen.
- Landscaping, screening and rehabilitation with indigenous trees and vegetation.

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

- It is assumed that the Dept.of Energy & Mineral Resources will issue the Applicant with a Fuel Retailers Licence for the proposed Filling Station;
- It is assumed that re-zoning and building plan approval will be issued by the Local Authority;
- It is assumed that the DAFF will issue the required Licence / Permit for the removal and trimming of Milkwood trees.
- It is assumed that General Authorisation for water uses will be obtained from BGCMA;
- It is assumed that the upgrade to Long Street & position of the advertising Pylon will be approved & supported by the Road Authorities;
- It is assumed that SANRAL will provide approval for any structures within the 30m building line from N2 off-ramp; upgrade to Long Street at & positioning of advertising signs / pylons.

It is assumed that no further archaeological or palaeontological resources, or human graves, will be found during construction.

SECTION H: RECOMMENDATIONS OF THE EAP AND SPECIALISTS

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

(b) If the documentation attached hereto is sufficient to make a decision, please indicate below whether, in your opinion, the listed activity(ies) should or should not be authorised:		
Listed activity(ies) should be authorised:	***YES***	~~*NO*~~

Provide reasons for your opinion

- All recommendations and inputs from the specialists and technical team have been accommodated in the design of the preferred development proposal;
- Concerns and inputs provided by stakeholders during this environmental process have been responded to and accommodated in the preferred development proposal.
- The Local Authority and landowner has approved two lease agreements for the use and management of the property.
- The Municipality has confirmed the availability and provision of require civil services.

(c) Provide a description of any aspects that were conditional to the findings of the assessment by the EAP and Specialists which are to be included as conditions of authorisation.

- A suitably qualified **Environmental Control Officer (ECO)** must be appointed to oversee all activities for the duration of the construction phase, concluding at the end of rehabilitation / landscaping activities. The ECO must have a minimum of a tertiary level qualification in the natural sciences field. The ECO should have at least 3 years' experience and proven competency as an ECO. Responsibilities of the ECO with regards to environmental monitoring and reporting during construction, as well as post-construction completion statements and environmental audits, must be included in the EMPr.
- The ECO, in consultation with the Contractor, shall ensure that adequate environmental awareness training of senior site personnel takes place and that all construction workers receive an **environmental induction presentation** on the importance and implications of the EA and EMPr. This induction must include reference to the required protection of remnant vegetation and fauna, and in particular awareness about not harming or collecting species such as snakes and tortoises. Any fauna threatened by the construction activities should be removed to safety by the ECO or appropriately qualified environmental officer.
- The **floor-levels of development** footprints below the 1:100 year floodline (2017 determination) should be lifted at least **500mm above the 1:100 year floodline (to 4m contour line)** for human safety and avoidance of run-off contamination from fuel spills on forecourt surface area.
- Development should make use of the already transformed / disturbed platform of the property. The **remainder of the site should be vegetated / rehabilitated** to encourage infiltration or to reduce the velocity of surface water runoff as far as possible.
- The developer must **remove all dumped waste and alien plant vegetation** from the property.
- **Thicket areas** (southern slope & remnant pockets) should be **demarcated as a no-go zone** during construction and protected from harm during operation.
- The **4.5m contour line** (southern vegetated slope) should not be encroached on.
- A **10m buffer** from any neighbouring property must be instituted for deep excavations (1.5m or more).
- **A development buffer of at least 10m** should be instituted around the onsite wetland.
- The depression wetland and the lower drainage feature (along western boundary) should be incorporated into the **stormwater management system** for the site, **and rehabilitated** (shaped and planted suitable indigenous sedges and rushes such as *Cyperus textilis* and *Isolepis prolifera*) longer term improvement of the lower drainage feature. The advice of a suitably qualified aquatic ecologist or botanist should be sought to assist with the incorporation and rehabilitation of these aquatic features into the development of the site.
- The planting of screens and gardens and all rehabilitation efforts should make use of only **suitable local indigenous plants**. No exotic and alien invasive plants allowed for garden or landscaped areas.
- The **alien invasive vegetation should be cleared**, with ongoing monitoring and management.
- A **Forestry permit / licence should be obtained from DAFF** for the clearing or trimming of any protected trees, and associated coastal thicket vegetation, that would be lost or damaged due

to the development, before construction commences. Pruning of Milkwood trees must be undertaken by a professional feller, under the guidance of the appointed ECO, to avoid miscommunication / misinterpretation of the implementation of the Licence.

- Water Use **General Authorisation** must be obtained from the BGCMA, for the proposed rehabilitation of the wetland and stormwater channel and use of treated effluent for irrigation & Fire-fighting, prior to construction / rehabilitation activities.
- The potential for **surface and groundwater contamination must be addressed and prevented** through the design, construction, operation and maintenance of the filling station in compliance with SABS SANS standards. These must include, but not be limited to:
  - The underground fuel tanks must be placed into a sealed / **watertight containment;**
  - Four **sampling wells** must be installed around underground fuel tank area and regularly monitored.
  - At least **one monitoring boreholes** be established between the underground storage tanks and the Great Brak River, the exact position of which should be confirmed once the design of the filling station has been completed. The boreholes should be drilled to a depth of about 10 m and should be sampled every six months. The sampled groundwater should be analysed for total petroleum hydrocarbons (TPH), the BTEX compounds, polycyclic aromatic hydrocarbons (PAH), phenol and lead.
  - Stormwater run-off from the forecourt dispensing area must be separated from stormwater run-off from the remainder of the facility. Uncontaminated rain run-off must be directed away from the forecourt canopy into the stormwater / rainwater capture-storage system or drainage channels.
  - Prevent rainwater entering Forecourt area: The forecourt area should be covered with a roof that has an overhand of at least 10°. The hard-surfaced forecourt floor should have minimum slope of 2%, allowing any rain or other surface water (potentially contaminated with hydrocarbon pollutants) to drain towards central inlets linked to the sewage treatment system, and regular checks must be done for leaking roofs or stormwater pipes that may be discharging water onto the forecourt or into the bunded area.
  - Both forecourt & fuel delivery areas must be bunded with impermeable material to prevent run-off & check regularly for leaks. **Forecourt stormwater system must be fitted with separator** & sump to intercept hydrocarbon pollutants (petroleum & oil). Water from sump must be directed into the on-site sewage treatment system. Oil retained in separator must be emptied once the level reached and collected by registered service provider and disposed of at a suitable facility.
  - It is also essential that **pollution prevention measures** should be put in place within the site to ensure that there is no risk of pollution spills or contaminated runoff entering the stormwater systems and downstream estuarine habitats.
- Implement an **integrated waste management approach** that minimises waste impacts.
- During construction, necessary good **housekeeping measures** must be implemented as per EMPr to minimise the potential for contamination of surface water runoff:
  - Restrict development to low-lying, disturbed platform.
  - Restrict excavations, earthmoving and movement of vehicles to construction site – demarcation of no-go steep portions of site.
  - Install silt fences on downslope edge of site and/or excavations.
  - Minimise timeframes for earthworks as far as possible.
  - Re-vegetate, rehabilitate, brush-pack or mulch exposed areas where earthworks complete as soon as possible.
- The owner/operator of the filling station must inform the George office of the Western Cape Dept. of Health and the Municipal Health Services of the Eden District Municipality (Mossel Bay office) of any pollution that may occur;
- The proposed convenience store must have a Certificate of Acceptability (COA) from the Eden District Municipal Health Services (Mossel Bay Office);
- **Water-saving technologies** should form part of the building design, development and operation, include: Dual-flush toilets; low-flow faucets and geyser & pipe insulation.
- **Energy-saving technologies** / mechanisms must be included in building design, development & operation, include: energy saving lights, low use appliances, solar geysers and heaters. No mercury vapour, high pressure sodium or incandescent lights will be considered.
- Implement measures to **reduce air pollution / emissions** as per EMPr.
- Implement measures to **reduce noise / nuisance**: vegetated berm along western boundary and

control of 'open hours' for children's playground and use of amphitheatre must be restricted to Restaurant hours.

- Implement measures to **reduce visual intrusion** and enhance sense-of-place.
- Clearance of vegetation for the installation and maintenance of the **perimeter fenceline** must be limited to 1.5m on either side of the fenceline (i.e. 3m wide corridor). The fence around the development property should preferably be palisade fencing to allow continued passage of small fauna through the site. No electric strands within 20cm of the ground, as this prevents fauna from passing through the site.
- **Rainwater** should be captured and stored for use to flush toilets, for vehicle washing and for irrigation of gardens and landscaping.
- All efforts should be made to improve the local economy through the construction and operation of the development, in so far as the **recruitment of local labour** and use of sub-contractors, local suppliers and small businesses where feasible for goods and services. Knowledge sharing and on-the-job- training should be viewed as a prerequisite, where feasible, for all service contractors/service providers working on the development and employing local labour

(d) If you are of the opinion that the activity should be authorised, please provide any conditions, including mitigation measures that should in your view be considered for inclusion in an environmental authorisation.

There are no environmental fatal flaws identified as part of this environmental assessment and thus there is no reason for Environmental Authorisation to be refused. The implementation of the abovementioned recommendations and mitigation measures, as well as the measures included in the EMPr as principles of 'best practice' and 'duty of care to the environment', will ensure that identified potential negative impacts are avoided or minimised, the potential positive impacts are enhanced, and the status quo improved.

(e) Please indicate the recommended periods in terms of the following periods that should be specified in the environmental authorisation:

i.	*the period within which commencement must occur;*	*5 years*
ii.	*the period for which the environmental authorisation is granted and the date on which the development proposal will have been concluded, where the environmental authorisation does not include operational aspects;*	*Not applicable as EA includes operational aspects*
iii.	*the period for which the portion of the environmental authorisation that deals with non-operational aspects is granted; and*	*7 years*
iv.	*the period for which the portion of the environmental authorisation that deals with operational aspects is granted.*	*30 years* *After 30 years underground fuel storage tanks general require refurbishment or re-placement.*

SECTION I: APPENDICES

The following appendices must be attached to this report:

APPENDIX			***Confirm that Appendix is attached***
Appendix A:	***Locality map***		✓
Appendix B:	***Site development plan(s)***		✓
	A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;		✓
Appendix C:	***Photographs***		✓
Appendix D:	***Biodiversity overlay map***		✓
Appendix E:	***Permit(s) / license(s) from any other Organ of State, including service letters from the municipality.***		✓
	Appendix E1:	***Copy of comment from HWC.***	✓
Appendix F:	***Public participation information: including a copy of the register of I&APs, the comments and responses report, proof of notices, advertisements and any other public participation information as is required in Section C above.***		✓
Appendix G:	***Specialist Report(s)***		✓
Appendix H :	***EMPr***		✓
Appendix I:	***Additional information related to listed waste management activities (if applicable)***		N/A
Appendix J:	***If applicable, description of the impact assessment process followed to reach the proposed preferred alternative within the site.*** Development Constraints & Opportunities (Oct. 2017)		✓
Appendix K:	***Any Other (if applicable).***		✓

SECTION J: DECLARATIONS

1. THE APPLICANT

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

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

- *am aware of and understand the content of this report;*
- *am fully aware of my responsibilities in terms of the NEMA, the EIA Regulations in terms of the NEMA (Government Notice No. R. 326, refers) (as amended) and any relevant specific environmental management Act and that failure to fulfil these requirements may constitute an offence in terms of relevant environmental legislation;*
- *have provided the EAP and Specialist, Review EAP (if applicable), and Review Specialist (if applicable), and the Competent Authority with access to all information at my disposal that is relevant to the application;*
- *will be responsible for complying with conditions that may be attached to any decision(s) issued by the Competent Authority;*
- *will be responsible for the costs incurred in complying with the conditions that may be attached to any decision(s) issued by the Competent Authority;*

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

Signature of the Applicant:	
Name of Organisation:	
Date:	

2. THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I Choose an item. on behalf of Cape EAPrac*, as the appointed EAP hereby declare/affirm:*

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

Signature of the EAP:	
Name of Company:	Cape Environmental Assessment Practitioners (Cape EAPrac)
Date:	

3. THE REVIEW ENVIRONMENTAL ASSESSMENT PRACTITIONER

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

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

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

4. THE SPECIALIST

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

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

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

Signature of the Specialist:	
Name of Company:	
Date:	

5. THE REVIEW SPECIALIST

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

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

Signature of Review Specialist:	
Name of Company:	
Date:	

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