FINAL SCOPING REPORT FOR THE PROPOSED CONSTRUCTION AND OPERATION OF THE CAUSTIC SODA MAKE-UP PLANT IN CHLOORKOP, KEMPTON PARK, EKURHULENI METROPOLITAN GAUTENG PROVINCE

AFRICAN CHEMICALS
impossible is potential

BATACH HOLDINGS

Report Prepared for:

AFRICAN CHEMICALS
impossible is potential

Report Prepared by:

BATACH HOLDINGS

Reviewed by: BATACH HOLDINGS PTY Ltd

Lucky Msimanga *(EAP)*

Lead: Environmental Assessment Practitioner

Email: Lucky@batach.co.za

Authors:

Lucky Msimanga

Dr Thomas Gyedu-Ababio

Herbert Nemato

Final Scoping Report (FSR) for the Proposed Construction and Operation of the Caustic Soda Make-Up Plant in Chloorkop, Kempton Park, Ekurhuleni Metropolitan – Gauteng Province

Caustic Soda in solid flakes & lye form

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Document Control

ENVIRONMENTAL AUTHORISATION APPLICATION: DRAFT SCOPING REPORT FOR THE PROPOSED CONSTRUCTION AND OPERATION OF THE CAUSTIC SODA MAKE-UP PLANT IN EKURHULENI METROPOLITAN, CHLOORKOP, KEMPTON PARK – GAUTENG PROVINCE

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Executive Summary

AFRICAN Chemicals (AC) proposes to construct and operate a Caustic-Make-up plant. The proposal entails construction and operation of a caustic soda (known as sodium hydroxide) make-up plant. The proposed construction and operation will be situated at ERF 198 of Chloorkop-IR. The proposed development aims to operate autonomously with its own two entrances, security access, weighbridge, warehouse, production facility tank farm and staff quarters. The proposed caustic make-up plant involves the dissolution, storage and loading of approximately **5000 tones** (LMT) of caustic soda per month at a 45-50% weight of desired caustic solution concentration on the site which measures 1,875867 hectares in extent. African Chemicals wishes to import dry caustic, which will be distributed to the newly proposed facility in Johannesburg (Chloorkop), City of Ekurhuleni metropolitan in Gauteng Province, where it will be dissolved into lye form releasing excessive heat and thereafter loaded to customer tanker trucks. The dissolution, storage and loading of all this form part of the **Caustic Make-up Plant**.

AFRICAN Chemicals (AC) founded in 2014 and after two years of preparation and structuring it was incorporated in 2016. AFRICAN Chemicals (AC) is an established Qualifying Small Enterprise - as defined in the Broad Based Black Economic Empowerment Codes of Good Practice of 2016 - in the cleaning and industrial chemicals manufacturing sector. The applicant is a South African based bulk chemicals production, marketing and distribution, which is focused on supplying products and services to the African market.

BATACH HOLDINGS (BATACH) South Africa (Pty) Ltd has been appointed by African Chemicals (AC) as an independent Environmental Assessment Practitioner to undertake the required environmental applications on behalf of African Chemicals (AC) for the proposed project. In terms of the latest amendments of the 2014 Environmental Impact Assessment Regulations, as published on 07 April 2017, ”), an application for Environmental Authorisation via a Scoping and Environmental Impact Reporting process is required. This process consists of two phases, a Scoping Phase and an Environmental Impact Assessment Phase.

This document constitutes the Final Scoping Report (FSR), which contains the information applicable to the Scoping Phase. This report is to be distributed to relevant authorities for decision whether the proposed project can go to the EIA phase or not.

APPLICATION PROCESS

African Chemicals (Pty) Ltd ("**the applicant")** seeks to apply for Environmental Authorisation ("EA") with Gauteng Department of Agriculture and Rural Development ("GDARD"). In terms of the 2014 EIA Regulations as amended under the National Environmental Management Act 107 of 1998 ("NEMA"), as well as for an Atmospheric Emission License ("**AEL**") with the City of Ekurhuleni Metropolitan Municipality, for the establishment of the Caustic make-up plant. The proposed development needs an AEL in terms of the National Environmental Management Air Quality Act (Act 39 of 2004) ("NEM:AQA").

The key pieces of legislation applicable to the African Chemicals Caustic Make-up proposed plant are-

- National Environmental Management Act, (Act No.107 of 1998) (as amended)
- National Environmental Management Air Quality Act (Act 39 of 2004) ("NEM:AQA") NEM:AQA.
- National Environmental Management: Waste Act (Act No.59 of 2008)

The following activities triggered:
In terms of NEM:AQA, the following Listed Activities are triggered:

GN. R. 893 of the NEM: AQA 2013 Regulations: (Minimum Emission Standards)

Category 7: for Inorganic Chemicals

Subcategory 7.7: Production of Caustic Soda.

The production of caustic soda, as per subcategory 7.7 of the notice, described as facility producing caustic soda. This applies to all installations producing more than 10 tons per month (Refer to Table 1 below). The production of caustic soda at African Chemicals Plant in Chloorkop therefore requires licensing as per Section 22 of NEM: AQA. The proposed Caustic Soda Make-up Plant process is expected to produce caustic lye at estimated **5000 tonnes per** month at 45-50% weight by weight (w/w) desired caustic solution concentration.

Table 1: **Minimum Emission Standards for Category 7: Inorganic Chemicals Industry, Sub-Category 7.7: Production of Caustic Soda.**

Description:	Production of caustic soda.		
Application:	All installations producing more than 10 tonnes per month.		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 6% O_2, 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Particulate matter	NaOH	New	25

Description:	Production of caustic soda.		
Application:	All installations producing more than 10 tonnes per month.		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 6% O_2, 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
		Existing	50

An Atmospheric Emissions License (**AEL**) will thus be required for the operation of the plant. As well as in terms of the 2014 EIA Regulations as amended under the National Environmental Management Act 107 of 1998 ("NEMA") Listing Notice 2, Listed Activity under NEMA: requires an Environmental authorization ("EA") through a process of Scoping and Environmental Impact Reporting (S&EIR) process to obtain environmental authorization for the project.

IN TERMS OF NEMA THE FOLLOWING LISTED ACTIVITIES ARE TRIGGERED

Activity 4 of GN 325: 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 **more than 500 cubic meters**.

Activity 6 of GN 325: The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding—

(i) activities which are identified and included in Listing Notice 1 of 2014;
(ii) activities which are included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies;
(iii) the development of facilities or infrastructure for the treatment of effluent, polluted water, wastewater or sewage where such facilities have a daily throughput capacity of 2 000 cubic metres or less; or
(iv) where the development is directly related to aquaculture facilities or infrastructure where the wastewater discharge capacity will not exceed 50 cubic meters per day

Activity 7 of GN 325 The development and related operation of facilities or infrastructure for the bulk transportation of dangerous goods—

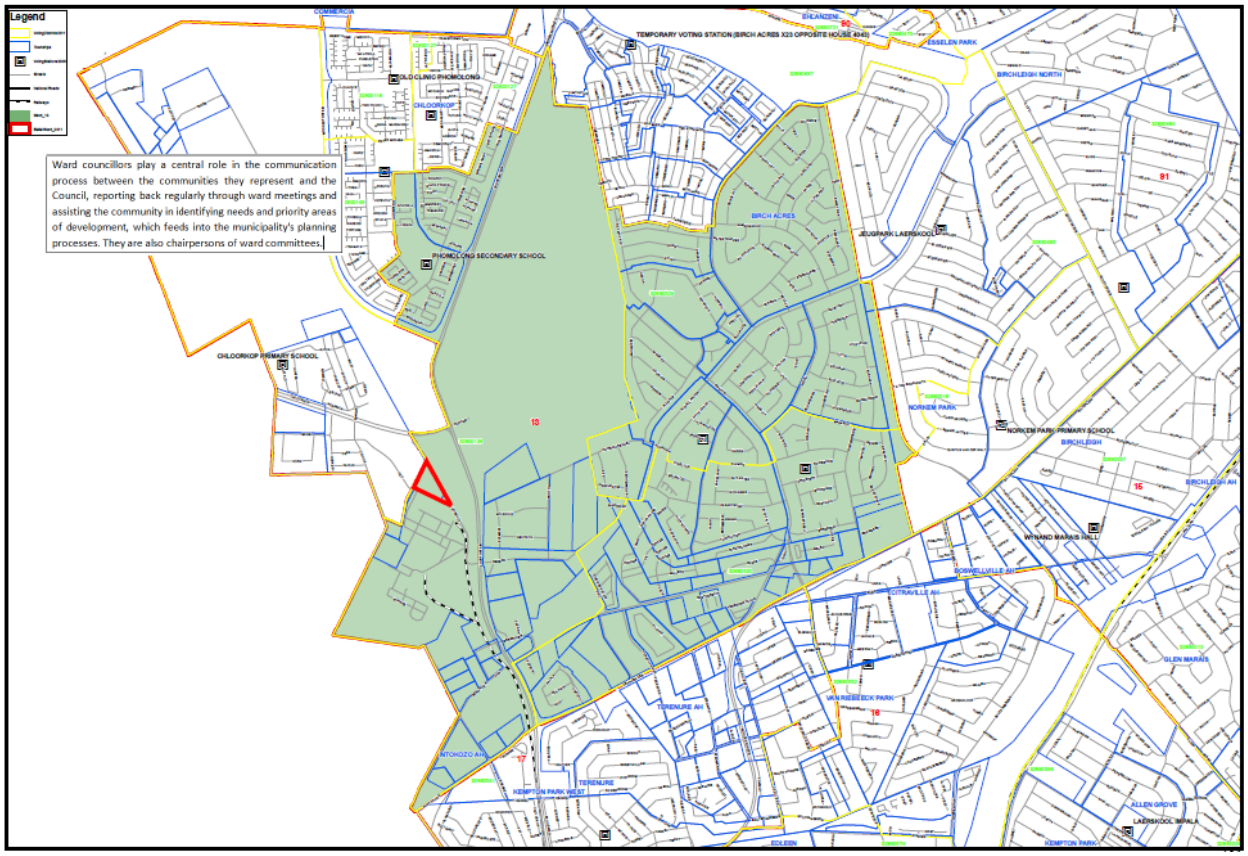
(i) in gas form, outside an industrial complex, using pipelines, exceeding 1 000 metres in length, with a throughput capacity of more than 700 tons per day
(ii) in liquid form, outside an industrial complex, using pipelines, exceeding 1 000 metres in length, with a throughput capacity of more than 50 cubic metres per day; or
(iii) In solid form, outside an industrial complex, using funiculars or conveyors with a throughput capacity of more than 50 tons per day.

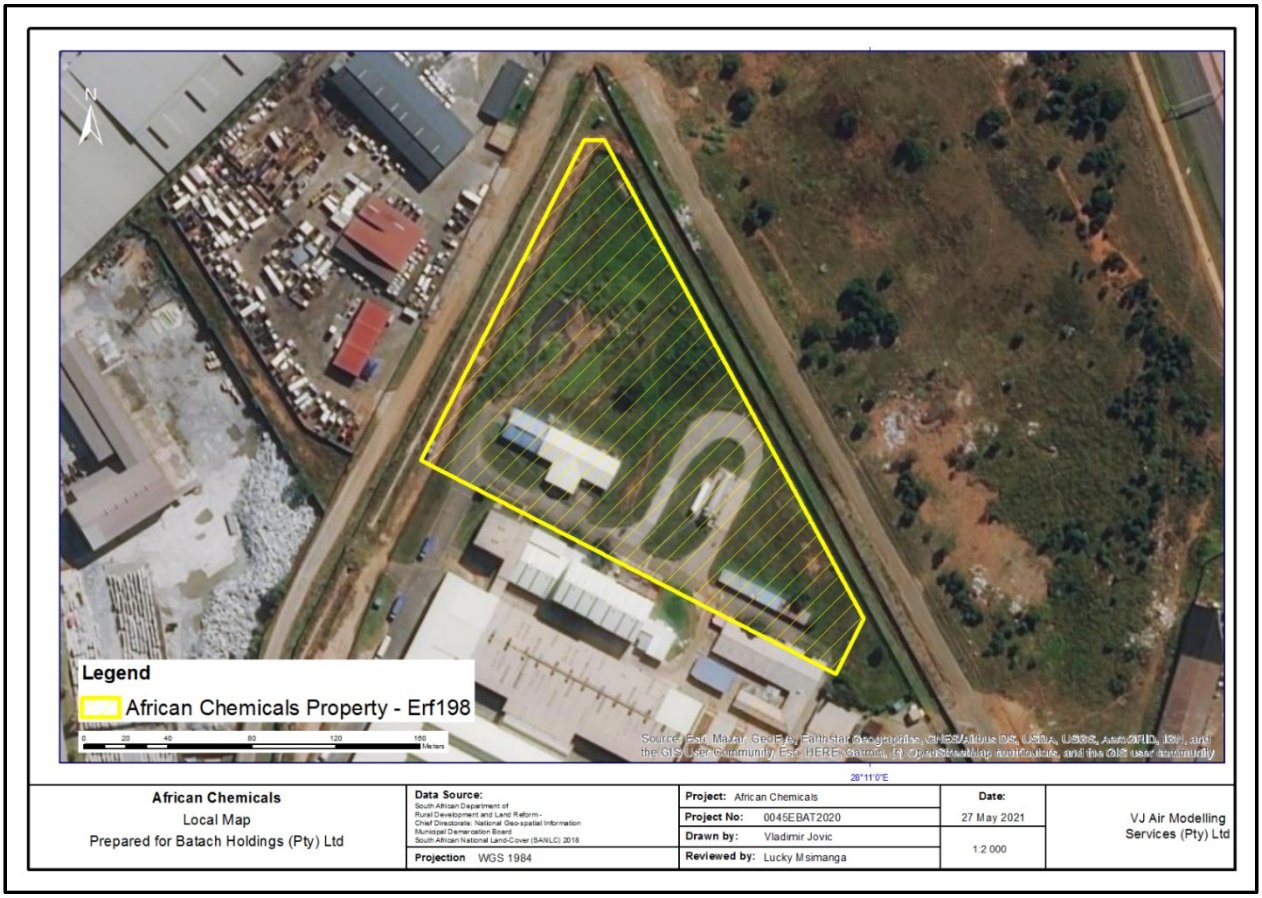
Activity 56 of GN 327 The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre—

(iv) where the existing reserve is wider than 13,5 meters; or
(v) where no reserve exists, where the existing road is wider than 8 metres excluding where widening or lengthening occur inside urban areas.

LOCATION OF THE PROJECT

The proposed construction and operation of caustic make-up plant will be situated at ERF No 198, Chloorkop-IR, within the City of Ekurhuleni metropolitan in Gauteng Province. The closest town is Kempton Park, which is the economic node of Ekurhuleni metropolitan and hosts an array of established companies and industries engaged in a range of manufacturing related activities. The proposed site falls within Ward 13, a well-serviced area with a number of primary and secondary roads, including Zuurfontein Avenue and Allandale Road



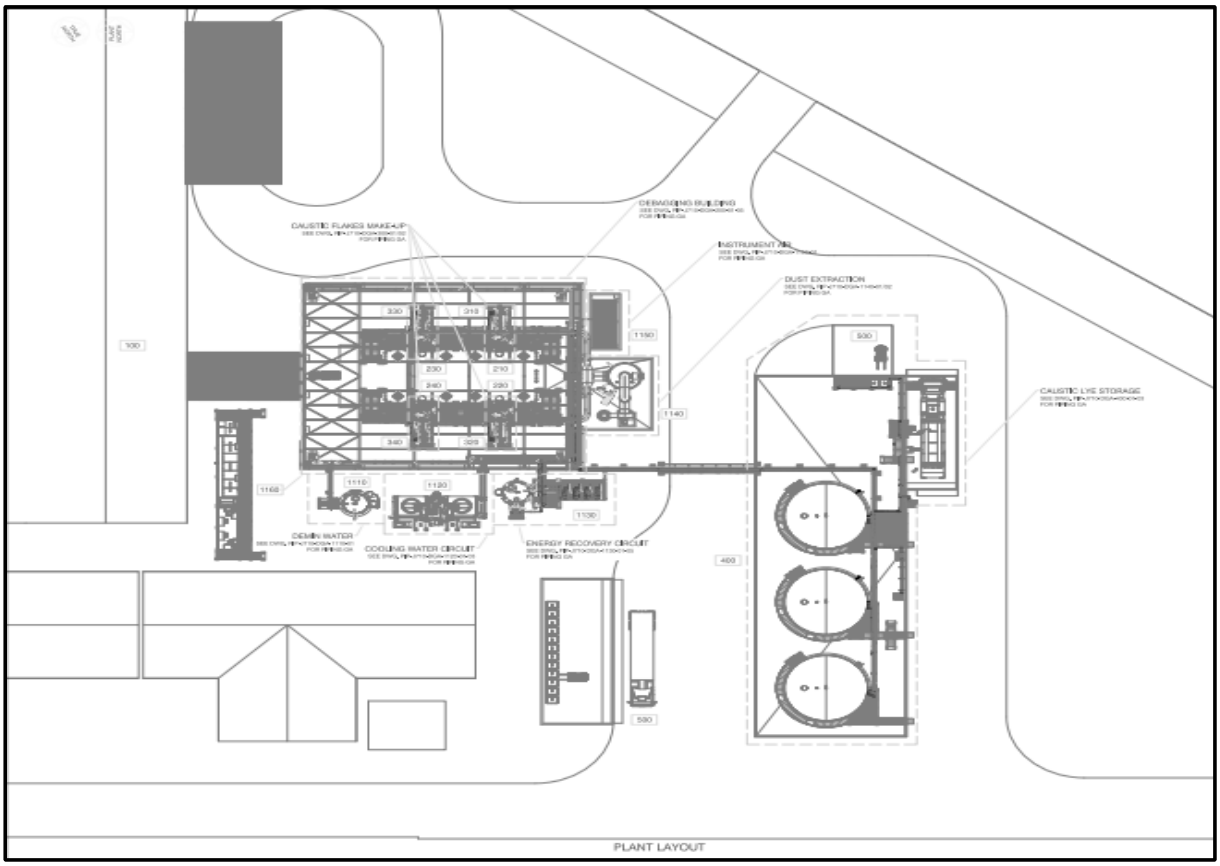


PROPOSED SITE

The proposed site is currently zoned as an industrial type-1 (one), which is severely disturbed due to similar industrial activities on the same site. A chlorine producing industry is also located adjacent to the proposed site on the industrial zone

There are no watercourses or other sensitive environmental features located on, or within close proximity to the proposed site. The nearest watercourse is located approximately 2km from the proposed site. This location was

therefore chosen as the proposed site due to its degraded state and its proximity to the similar industrial activity and upgraded roads. Thus, this location is preferred.



DESIGN / LAYOUT ALTERNATIVE:

There is no feasible design/layout alternative for this project that will be assessed due to the following reasons: The applicant has extensive knowledge and experience in the operation of caustic and other chemicals. The layout of the site is designed in a manner to allow the most efficient and safest way of operation and transportation of material and product to and from the plant. Please refer to the proposed Site Plan layout attached in Annexure 2.

TECHNOLOGY ALTERNATIVE:

As far as reasonably possible, the best technology will be utilized to limit and / or prevent impact on the environment. The two debagging systems will operate alternatingly to allow for continuous debagging of the caustic flakes and feed to the dissolution tanks, i.e. while one is in operation the other is being prepared to continue debagging once the

first debagging sequence is done. The ease of capturing particulate matter from the process to prevent it from being dispersed into the atmosphere has been highly considered. This particulate matter will be recycled into the process. Emissions originating from the plant are very low and the plant is designed to be zero-effluent, compared to the limits set for the relevant listed activity. An air emission monitoring program and dust monitoring program will be implemented to verify compliance to the air emission standards in terms of the NEM: AQA.

NO GO ALTERNATIVE:

The "no-go" alternative will be considered throughout the assessment of the proposed project. If the project is not authorized, no caustic will be produced at the site. No new job opportunities will be created, which will negatively affect the economy of the area.

BASELINE SCOPING ASSESSMENTS

A baseline site assessment was undertaken in order to identify and assess any potential impacts associated with establishing the proposed caustic make-up plant. This was followed by numerous discussions with specialists, the technology partner and MHI specialist. Desktop studies regarding environmental features located in close proximity to the site has also been done

PUBLIC PARTICIPATION

The Public Participation Process ("PPP") was conducted according to the 2014 EIA Regulations as amended. Comments, responses and proof of notifications sent during the PPP are included in Section for Public Participation and Annexures of this Final Scoping Report (refer to attached document in Annexures).

PROFILE OF THE RECEIVING ENVIRONMENT

The Final Scoping Report provides a general description of the status quo of the receiving environment in the project area. It serves to set the scene and provide context to the area within which the Scoping exercise was conducted. This section also includes the main issues / impacts associated with each aspect and how the proposed development will affect the biophysical and social environment.

The desktop analysis of the receiving environment was assessed and discussed in terms of the following:

- Land use and surrounding area
- Climate
- Air quality
- Geohydrology and Hydrology
- Geotechnical analysis
- Socio-economic
- Heritage and cultural aspects.

- Traffic Analysis
- Major Hazards Installations (MHI)
- Health and Safety

A summary of the various environmental and social aspects assessed is summarized in the table below:

Receiving Environment	**Description**
Land use and surrounding area	In terms of land use, the project area is characterized by intense past land-use modifications from industrial development, agriculture, mining, tourism, low density and high density residential areas, landfilling and recreational activities. The primary area is bordered by mixed-use industrial developments, as well as residential areas and open areas The developable land has a surface area of approximately 18,000 square meters, although the area to be developed will be less (based on the required coverage factor). The terrain across the primary area is generally flat with a gradual slope towards the north from an elevation of approximately 1672 meters above mean sea level (mamsl) on the southern boundary to approximately 1668 mamsl on the northern boundary
Climate	Air temperature is important, both for determining the effect of plume buoyancy (the larger the temperature difference between the plume and the ambient air, the higher a pollution plume is able to rise) and determining the development of the mixing and inversion layers. Air temperature provides an indication of the extent of insolation, and therefore of the rate of development and dissipation of mixing dispersion layers
Air quality	Dust from bare areas that have been cleared for construction purposes Emissions from construction vehicles and equipment The surrounding existing air quality impacts such as:- • Gaseous and particulate emissions from household fuel burning; • Gaseous and particulate emissions from mining and tailings recovery operations; • Gaseous and particulate emissions from various industrial operations; • Miscellaneous fugitive dust sources including vehicle entrainment on roads and windblown dust from open areas; • Gaseous and particulate emissions from landfill operations; • Gaseous and particulate emissions from vehicles; and • Gaseous and particulate emissions from biomass burning/veld fires (e.g. wild fires).
Geohydrology and Hydrology	hardened surfaces will cause changes in the surface flow quantity and quality Materials such as oils and grease from on-site machinery exposed to the soil could infiltrate the ground resulting in ground water contamination

Geotechnical	Geological and Excavation for Caustic make up Plant foundation can lead to erosion, The geotechnical analysis will be undertaken to determine the stability of the site
Socio-economic	Socio-economic is so important to determine the benefits of such project and consider the positive impacts to the environment and local communities
Heritage and cultural aspects.	Heritage and Palaeontological assessment is important to determine the historical value of the site.
Traffic Analysis	Traffic impact to determine the maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic and control conditions

ENVIRONMENTAL IMPACTS

The main environmental impacts to be assessed during the EIA phase included:

Aspect Potential Impact	**Potential Impact**
CONSTRUCTION PHASE	
Geology	Excavation for Caustic make up Plant foundation can lead to erosion
Soils	Soil erosion, compaction and contamination
Surface and groundwater	Creation of impermeable / hardened surfaces will cause changes in the surface flow quantity and quality Materials such as oils and grease from on-site machinery exposed to the soil could infiltrate the ground resulting in ground water contamination
Heritage and cultural	Damage to heritage resources through construction activities (chance find though very minimal)
Air quality	Dust from bare areas that have been cleared for construction purposes Emissions from construction vehicles and equipment
Social	Influx of people potentially seeking employment Safety and security at the site Consideration of local labour and suppliers in the area (positive impact)
OPERATIONAL PHASE	
Soils	Soil contamination Soil erosion may occur due to change in land use. Additional hard surface increases run-off resulting in higher velocities and higher erosion potential. The other way in which erosion may occur is converting previous overland

	flow into concentrated discharge points
Surface and groundwater	Creation of impermeable / hardened surfaces will cause changes in the surface flow quantity and quality Materials such as oils and grease from on-site machinery exposed to the soil could infiltrate the ground resulting in ground water contamination
Air Quality	Potential odours emanating from the pilot plant Exhaust emissions from maintenance vehicles

RECOMMENDATIONS AND CONCLUSION

It is Batach Holdings professional opinion that the proposed development does not present any fatal flaws in terms of negative impacts to the environment and therefore will not have any significant detrimental impacts to render the project unfeasible.

LIST OF ABBREVIATIONS

AC –	African Chemicals
AEL	Atmospheric Emissions Licence
AQIA	Air Quality Impact Assessment
BA	Basic Assessment
BATACH	Batach Holdings Pty Ltd South Africa
BBBEE	Broad Based Black Economic Empowerment
CAPEX	Capital Expenditure
CV	Curriculum Vitae
DAFF	Department of Agriculture, Forestry and Fisheries
DEA	Department of Environmental Affairs
DEIAR	Draft Environmental Impact Assessment Report
DSR:	Draft Scoping Report
Dti	Department of Trade and Industry
DWS	Department of Water and Sanitation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EHS	Environmental, Health and Safety
EMF	Environmental Management Framework
EMPr	Environmental Management Programme
EMS	Environmental Management System
FEIAR	Final Environmental Impact Assessment Report
FSR	Final Scoping Report
GDARD	Gauteng Department of Agriculture and Rural Development
GN	Government Notice
HVAC	Heating, Ventilation and Air Conditioning
I&AP	Interested and Affected Party
IBC	Intermediate Bulk Containers
ICT	Information Communication Technology
IDP	Integrated Development Plan
IDZ	Industrial Development Zone
IFAC	International Guidelines on Environmental Management Accounting
ISO	International Standards Organisation
IWWMP –	Integrated Water Waste Management Plan
LED	Light Emitting Diode
MBC	Membrane Cell Caustic Soda Solution
MCC	Motor Container Centre

MES	Minimum Emission Standard
MHI	Major Hazard Installation
NEMA	National Environmental Management Act 107 of 1998
NEM:AQA	National Environmental Management: Air Quality Act 39 of 2004
NEM:BA	National Environmental Management: Biodiversity Act 10 of 2004
NEM:CMA	National Environmental Management: Coastal Management Act 24 of 2008
NEM:WA	National Environmental Management: Waste Act 59 of 2008
NHRA	National Heritage Resources Act 25 of 1999
NWA	National Water Act 36 of 1998
OHSA	Occupational Health and Safety Act 85 of 1993
OPEX	Operational Expenditure
PLC	Programmable Logic Controller
QSE	Qualifying Small Enterprise
S&EIR	Scoping and Environmental Impact Report
SDF	Spatial Development Framework
SEZ	Special Economic Zone
SG	Surveyor General
SMME	Small, Medium and Micro-sized Enterprise
WML	Waste Management Licence
WUL	Water Use Licence

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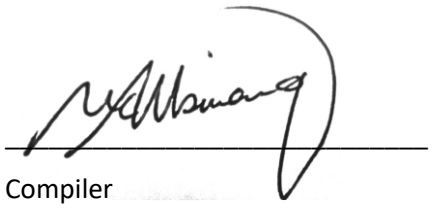

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Contents

1. Introduction

BATACH HOLDINGS (BATACH) (Pty) Ltd has been appointed by African Chemicals (AC) as an independent Environmental Assessment Practitioner to undertake the required environmental applications on behalf of African Chemicals (Pty) Ltd (AC). This Final Scoping Report forms part of the Scoping and Environmental Impact Assessment ("S&EIA") process currently underway in accordance with the 2014 EIA Regulations as amended. The purpose of the S&EIA process is to assess all impacts which may occur as a result of the activities associated with the proposed project and provide mitigation and management measures to be implemented throughout all phases of the project to prevent and/or reduce the impacts. The S&EIA process is also followed to obtain **EA** and an **AEL** to ensure legal compliance before establishing the permanent Caustic Make-up plant.

The Applicant

African Chemicals (Pty) Ltd (AC) is a South African based bulk chemicals production, marketing and distribution company focused on supplying products and services to the African industrial market. The company founded in 2014 and after two years of preparation and structuring it was incorporated in 2016.

It was born from years of market analysis of the global and domestic chemicals markets. Through this activity, it was concluded that there is a significant opportunity to not only close the supply deficit of several products but also for Africans to produce chemicals and market them within the continent in the interest of enhanced economic conditions in Africa (AC, 2020). As a Level I BBBEE, the applicant had to find creative ways to participate in a market which has no Black Industrialist players. African Chemicals is an established Qualifying Small Enterprise - as defined in the Broad Based Black Economic Empowerment Codes of Good Practice of 2016 - in the cleaning and industrial chemicals manufacturing sector.

AFRICAN Chemicals (AC) proposes to construct and operate a Caustic-Make-up plant. The plant **is** expected to produce caustic lye at an estimated **5000 tones** LMT per month. The proposed construction and operation will be situated at ERF No 198, Chloorkop-IR, within the City of Ekurhuleni metropolitan in Gauteng Province. The proposed development aims to operate **autonomously with its own proposed two entrances, security access, weighbridge, warehouse, production facility, tank farm, staff and technology**. African Chemicals (AC) wishes to import dry caustic, transport it to the newly proposed facility in Johannesburg, Chloorkop where it can be dissolved, into lye form and loaded into customer tanker trucks or Intermediate Bulk Containers (IBC). The dissolution, storage and loading

will all form part of the **Caustic Make-up Plant**. . The aim of this operation is designed to be fully automated and the make-up tank will be fed through weigh feeders, which will ensure consistent product quality.

African Chemicals (Pty) Ltd seeks to apply for Environmental Authorisation ("EA") with Gauteng Department of Agriculture and Rural Development ("GDARD"). In terms of the 2014 EIA Regulations as amended under the National Environmental Management Act 107 of 1998 ("NEMA"), as well as for an Atmospheric Emission License ("AEL") with the City of Ekurhuleni Metropolitan Municipality, for the establishment of the Caustic make-up plant. The proposed development needs an AEL in terms of the National Environmental Management Air Quality Act (Act 39 of 2004) ("NEM:AQA").

The key pieces of legislation applicable to the African Chemicals Caustic Make-up proposed plant are-

- National Environmental Management Act, (Act No.107 of 1998) (as amended)
- National Environmental Management Air Quality Act (Act 39 of 2004) ("NEM:AQA") NEM:AQA.
- National Environmental Management: Waste Act (Act No.59 of 2008)

In terms of the latest amendments to the 2014 Environmental Impact Assessment (EIA) Regulations, as published on 07 April 2017, an application for Environmental Authorization via a Scoping and Environmental Impact Reporting (S&EIR) process is required. The S&EIR process consists of two phases, **a Scoping Phase and an EIA Phase**. This document constitutes a Final Scoping Report (FSR) that contains the information applicable to the Scoping Phase. After the Draft Scoping report (DSR) that was distributed to relevant authorities and key stakeholders, and made available to the general public for review and comments. All comments received are incorporated in this FSR, along with the responses, and hereby submitted to the Gauteng Department of Agriculture and Rural Development (GDARD) for a decision as to whether the application may proceed to the EIA Phase or not.

This report includes the following:

- Introduction, the objectives of the scoping process and the legislated requirements for the content of a Scoping Report (**Chapters 1 -3**).
- Details regarding the Environmental Assessment Practitioner (**Chapter 3**).
- Project Location, Motivation and Production Inputs (**Chapters 4-5**).
- The legislative context **(Chapter 6).**
- Project need and desirability **(Chapter 7).**

- Alternatives **(Chapter 8).**
- The environmental attributes of the project site **(Chapter 9).**
- **Socio-economic and identified issues (Chapters 9.2).**
- Issues **(Chapter 13)**
- The assessment methodology and preliminary assessment **(Chapters 10)**
- A Plan of Study for the Environmental Impact Assessment Phase (**Chapter 11**).
- **The public participation process (Chapter 12)**
- Other requirements (Chapter 14)
- EAP affirmation (**Chapter 15)**
- Conclusions and recommendations **(Chapter 16).**

1.1. The need for Environmental Impact Assessment

In terms of the National Environmental Management Act (No. 107 of 1998) and the Amendments to the 2014 EIA Regulations, as published by the Department of Environmental Affairs (DEA) in Government Notice (GN) 326 on 07 April 2017. The Scoping of listed activities have been identified which require environmental authorization from the competent authority as follows: -

- GN 326 specifies the EIA procedures to be followed.
- GN 327 provides Listing Notice 1 – activities that require a Basic Assessment (BA) process.
- **GN 325 provides Listing Notice 2 – activities that require an S&EIR process.**
- GN 324 provides Listing Notice 3 – activities in identified geographical areas that require a BA process.

The proposed Caustic Make-up Plant **is** expected to produce caustic lye at estimated **5000 tones** per month at 45-50% weight by weight (w/w) desired caustic solution concentration. The caustic flakes will be delivered in 1000 kg or 1250 kg bulk bags and will be stored in a warehouse. African Chemicals has decided to import the product in solid form, transport it by road to Johannesburg, and dissolve it back into lye form before placing the product into the market.

The process triggers the following listed activities:

1.2 Listed Activities: GN 325 Listing Notice 2

This Listing Notice called the Environmental Impact Assessment Regulations Listing Notice 2 of 2014, which took effect on 08 December 2014. The following NEMA listed activities are included in the current application (refer to table below)

Activity 4 of GN 325: 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 more than 500 cubic metres.

Activity 6 of GN 325: The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding—

(v) activities which are identified and included in Listing Notice 1 of 2014;

(vi) activities which are included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies;

(vii) the development of facilities or infrastructure for the treatment of effluent, polluted water, wastewater or sewage where such facilities have a daily throughput capacity of 2 000 cubic metres or less; or

(viii) where the development is directly related to aquaculture facilities or infrastructure where the wastewater discharge capacity will not exceed 50 cubic meters per day

Activity 7 of GN 325 The development and related operation of facilities or infrastructure for the bulk transportation of dangerous goods—

(i) in gas form, outside an industrial complex, using pipelines, exceeding 1 000 metres in length, with a throughput capacity of more than 700 tons per day

(ii) in liquid form, outside an industrial complex, using pipelines, exceeding 1 000 metres in length, with a throughput capacity of more than 50 cubic metres per day; or

In solid form, outside an industrial complex, using funiculars or conveyors with a throughput capacity of more than 50 tons per day.

Activity 56 of GN 327 The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre—

(vi) where the existing reserve is wider than 13,5 meters; or

(vii) where no reserve exists, where the existing road is wider than 8 metres excluding where widening or lengthening occur inside urban areas.

GN. R. 893 of the NEM: AQA 2013 Regulations: (Minimum Emission Standards)

Category 7: for Inorganic Chemicals

Subcategory 7.7: Production of Caustic Soda.

2. Objectives

The objectives of the scoping process are specified in Appendix 2 of the Amendments to the 2014 EIA Regulations, as published by the Department of Environmental Affairs (DEA) in Government Notice (GN) 326 on 07 April 2017. Table 2-1 lists the scoping objectives from GN 326 and provides a reference to the applicable chapter of this document where each objective is addressed.

Table 2-1

Item	Description of Scoping Objectives	Reference
1.	The objective of the scoping process is to, through a consultative process-	Chapter 2: Objectives Chapter 12: **Public Participation Process**
(a)	Identify the relevant policies and legislation relevant to the activities	Chapter 6: Legislative Context
(b)	Motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred Location.	Chapter 7: Project Need and Desirability
(c)	Identify and confirm the preferred activity and technology alternative through an identification of impacts and risks and ranking process of such impacts and risks.	Chapter 5: Project Description Chapter 8: Alternatives
(d)	Identify and confirm the preferred site, through a detailed site selection process, which includes an identification of impacts and risks inclusive of identification of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment.	Chapter 4: Project Location Chapter 9: Environmental Attributes
(e)	Identify the key issues to be addressed in the assessment phase.	Chapter 13.: Issues
(f)	Agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to	Chapter 10: Assessment Methodology

Item	Description of Scoping Objectives	Reference
	determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site.	Chapter 15: Plan of Study for EIA
(g)	Identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored	Chapter 11: Preliminary Assessment

Source: Appendix 2 of GN 326 (DEA, 07 April 2017)

2.1. Phases

The lifecycle of the project will mainly involve three phases that will take place: -

1. ***Application Phase:*** This involves completion of information in an application form for submission to the environmental authority, namely the provincial Gauteng Department of Agriculture and Rural Development (GDARD) and subsequent relevant authorities

2. ***Scoping Phase:*** This stage involves the identification of environmental issues and concerns that are associated with the project. These issues then need to be investigated in the impact assessment. Issues and concerns are identified through consultation with the authorities, interested and affected parties (I&APs) and specialists. In addition, the project team will also identify issues based on their experience on similar projects undertaken. This will culminate into a Draft Scoping Report for comments and all Issues and concerns will be incorporated into a Final Scoping Report which will be ready for submission to the competent authority for decision to the next phase

3. ***Environmental Impact Assessment Phase:*** This is the stage where issues and concerns are investigated to determine their significance. In general, this involves the undertaking of a number of specialist studies – a specialist study is undertaken for each issue that needs further investigation. Both the significance of environmental impacts and measures to avoid or minimise

these (i.e. mitigation measures) are investigated in the EIA. There will be an ongoing public participation, in order to feedback findings to I&APs. The EIA culminates in the submission of an EIA **Report (**including a **Draft Environmental Management Plan Report (EMPr)** to the competent authority for decision-making

The purpose of scoping serves three (3) key important issues: -

- To determine the scope of work for the EIA, namely the issues and alternatives that need to be investigated and assessed.
- To initiate a public participation process to inform I&AP's about the project and to obtain their input on issues and concerns that they may have about the project.
- To identify, based on existing information, whether potential environmental impacts can be avoided or minimised through making changes to the project design.

There are **three other studies** that will be required which will form part of the EIA process as well. From an EIA perspective, these will serve as specialist studies. They are as follows:

- **The MHI study:** Given the nature of the project, it will be necessary to undertake a risk assessment as required by the Major Hazard Installation (MHI) Regulations as promulgated under the Occupational Health & Safety Act (Act 85 of 1993) preceded by the Emergency plan.
- **The EMPr –** The EMPr is developed in compliance with section 24N of the NEMA, 1998 as amended and contains those requirements prescribed in the EIA regulations, 2014, as amended including section 23 and Appendix 4 of GN No R. 326 of 7 April 2017. The EMPr is to be read in conjunction with the EIA report (EIAR) providing details of the affected environment.
- **EIS –** a document that takes into account the environmental impact of a proposed activity.

2.2. Report Content

The legislated requirements for the content of a Scoping Report are specified in Appendix 2 of the Amendments to the 2014 EIA Regulations (GN 326, 07 April 2017).

Table 3-1 lists the content requirements from GN 326 and provides a reference to the applicable chapter of this document where the specified information is provided.

Table 2-2 Legislated Requirements for the Content of a Scoping Report

	Content Requirements (Appendix 2 of GN 326, 07 April 2017)	**Reference in this Document**
2(1)	A scoping report must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process, and must include—	Chapter 2.2 : Report Content
(a)	details of — (i) The EAP who prepared the report. (ii) The expertise of the EAP, including a curriculum vitae.	Chapter 3: The Environmental Assessment Practitioner
(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.	Chapter 4: Project Location
(c)	A plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is— (i) a linear activity, a description and coordinates of the corridor in	Figure 1-1: Locality Map Figure 5-1: Chapter 4 Project Layout

	Content Requirements (Appendix 2 of GN 326, 07 April 2017)	Reference in this Document
	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.	Plan
(d)	A description of the scope of the proposed activity, including— (i) All listed and specified activities triggered. (ii) A description of the activities to be undertaken, including associated structures and infrastructure.	Chapter 1.1 & 1.2: Project Description Applicable to NEMA Listed Activities
(e)	A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process.	Chapter 6: Legislative Context
(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	Chapter 7: Project Need and Desirability
(g)	A full description of the process followed to reach the proposed preferred activity, site and location of the development footprint within the site, including - (i) details of all the alternatives considered; (ii) details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;	Chapter 8: Alternatives Chapter 12: Public Participation Process Chapter 13: Issues Chapter 9: Environmental Attributes

	Content Requirements (Appendix 2 of GN 326, 07 April 2017)	Reference in this Document
	(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; (iv) the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects	
	(v) the impacts and risks which have informed the identification of Each alternative, including the nature, significance, consequence, extent, duration and probability of such identified impacts, including the degree to which these impacts— (aa) can be reversed. (bb) may cause irreplaceable loss of resources. (cc) can be avoided, managed or mitigated. (vi) the methodology used in identifying and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives. (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. (viii) the possible mitigation measures that could be applied and level of residual risk. (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.	Chapter 10: Assessment Methodology Chapter 9: Alternatives Chapter 10: Preliminary Assessment

	Content Requirements (Appendix 2 of GN 326, 07 April 2017)	Reference in this Document
	(xi) a concluding statement indicating the preferred alternatives, including preferred location of the activity.	
(h)	(A plan of study for undertaking the environmental impact assessment process to be undertaken, including— (i) A description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity. (ii) A description of the aspects to be assessed as part of the environmental impact assessment process. (iii) Aspects to be assessed by specialists. (iv) A description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists. (v) A description of the proposed method of assessing duration and significance. (vi) An indication of the stages at which the competent authority will be consulted. (vii) Particulars of the public participation process that will be conducted during the environmental impact assessment process. (viii) A description of the tasks that will be undertaken as part of the environmental impact assessment process. (ix) Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.	Chapter 11: Plan of Study for EIA

	Content Requirements (Appendix 2 of GN 326, 07 April 2017)	Reference in this Document
(I)	An undertaking under oath or affirmation by the EAP in relation to— (i) The correctness of the information provided in the report. (ii) The inclusion of comments and inputs from stakeholders and interested and affected parties. (iii) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties.	Chapter 13: EAP Affirmation
(J)	An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment.	Chapter 13: EAP Affirmation
(K)	Where applicable, any specific information required by the competent authority.	Chapter 14: Other Requirements
(L)	any other matter required in terms of section 24(4)(a) and (b) of the Act	Chapter 14: Other Requirements
	(2) Where a government notice gazetted by the Minister provides for any protocol or minimum information requirement to be applied to a scoping report, the requirements as indicated in such notice will apply.	Chapter 14: Other Requirements

3. The Environmental Assessment Practitioner

In accordance with Item 2. (1) (a) in Appendix 2 of GN 326, this chapter provides details of:

(i) The Environmental Assessment Practitioner (EAP) who prepared this report.

(ii) The expertise of the EAP.

3.1 Batach Holdings Pty Ltd South Africa

Batach Holdings (South Africa) was established in South Africa in 2014 and was incorporated in 2016 and has expanded over the years with the Batach Holdings. The company now employs approximately 14 professional staff operating in four (4) provinces in South Africa. Batach Holdings offers expertise in a wide range of environmental management, Health and Safety, Project and Programme management as well as rigorous built environment disciplines whilst implementing quality assurance standards in accordance with (ISO) 9001.

Batach Holdings independence is ensured by the fact that it is strictly an organisation, not holding equity in any project, its ownership is primarily by staff. Batach Environment senior technical staff also maintain independent accreditation with the relevant professional accreditation bodies. This permits its consultants to provide clients with conflict-free and objectively support on crucial issues.

Batach Holdings fee for completing this report is based on its normal professional daily rates plus reimbursement of incidental expenses. The payment of that professional fee is not contingent upon the outcome of the report. Batach Holdings, Gauteng's Environmental Team has been practicing in Gauteng since inception and has a distinguished track record of managing a diverse range of large and complex projects.

3.2 Details of the EAP

The EAP for this application is Mr Lucky Msimanga, Lead Environmental Scientist at Batach Environment. Pertinent information relating to the expertise of the EAP is summarised below:

The EAP holds:

- Master's Degree in Environmental Science (2009) from the University of Sydney (Australia).
- Honours in Natural Science – University of Durban Westville (UKZN) (1999)
- Project and Programme Management (University of Pretoria)
- EIA (Water Law, Legal Principles, Biodiversity, Environmental Planning) Potchefstroom University - 2016

- 11 years of experience in the field of environmental management.
- 14 combined years of experience in Contracts, Project and Programme Management
- Specialises in environmental assessments, environmental auditing and integrated environmental licencing for the industrial, waste management and mining sectors.
- A registered professional member of IAIAsa International
- For further details, refer to the EAP curriculum vitae (CV)

Contact details for the EAP are provided below:

Name: Lucky Msimanga
Contacts: +27 61 356 8423
Email: Lucky@batach.co.za
Fax: 086 679 6758

4. Project Location

In accordance with Items 2.(1)(b) and 2.(1)(c) in Appendix 2 of GN 326, this chapter provides details of the location of the proposed project, including:

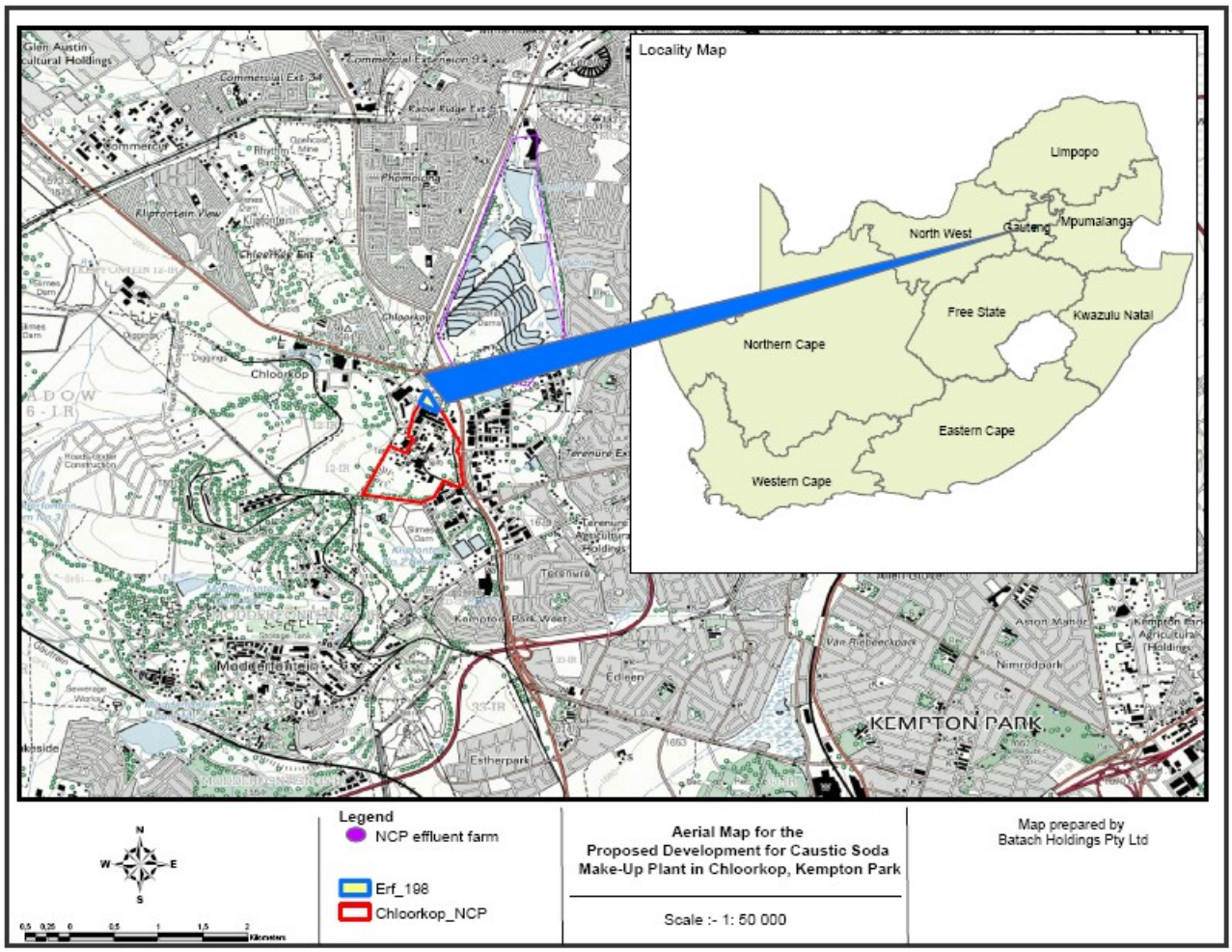
(i) The 21-digit Surveyor General (SG) code of Each cadastral land parcel (**Table 4.1)**

(ii) The physical address and property name (refer to the box below).

(iii) Geographical coordinates for the site (**Table 4-2**).

(iv) A plan which locates the proposed activities applied for at an appropriate scale (**Figure 4-1, Figure4-2** and Figure 6-4).

Fig 4.1: Orientation Map:

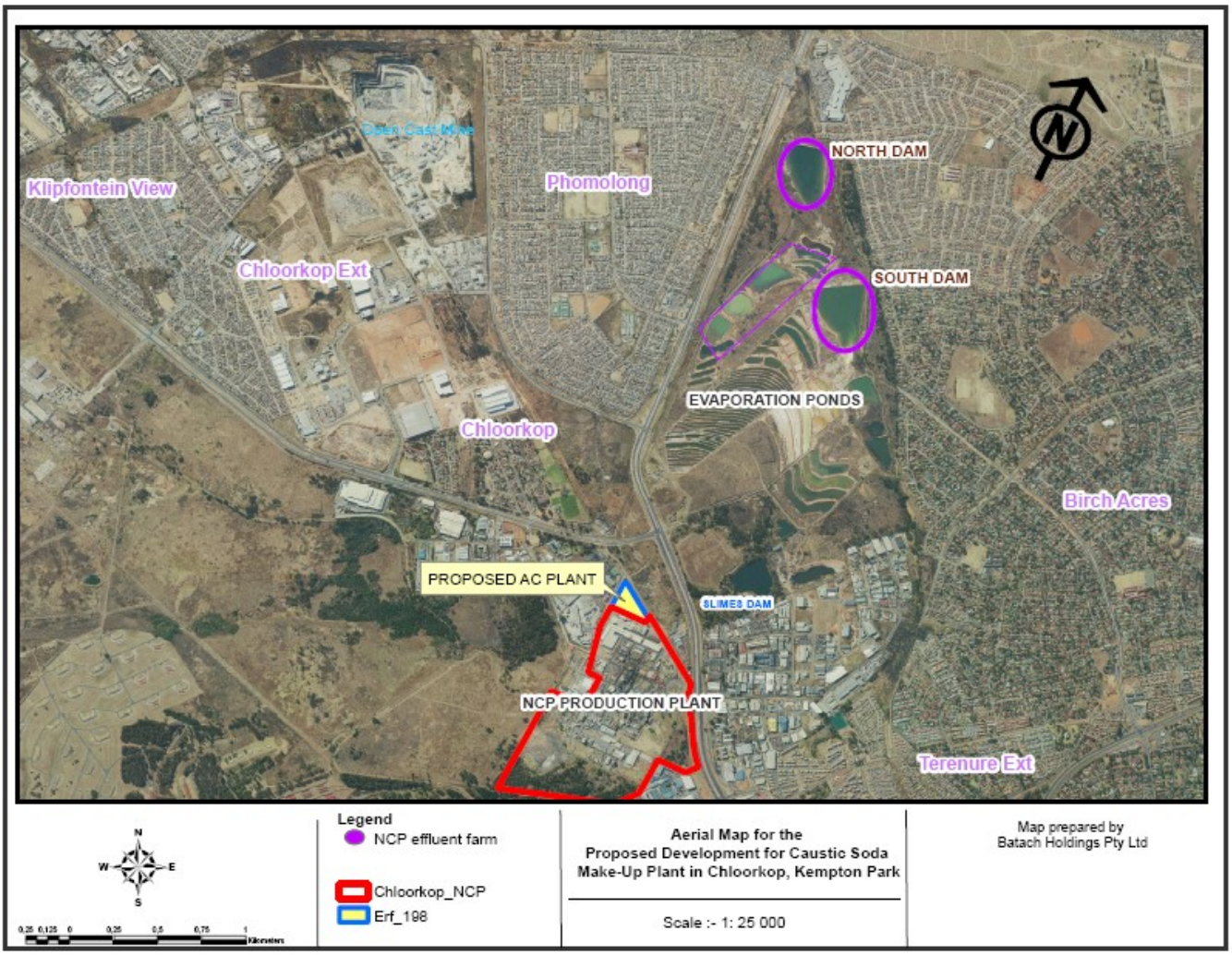


The proposed ERF **198, Chloorkop-IR** for the proposed make-up plant has a development footprint of **18758.67 square meters (m^2)**. It is located on the north eastern boundary tip of the NCP Chlorchem Properties, Chloorkop, South Africa. Access to the site is via a well-maintained public tar road (Ossewa Street) that turns off from the motorway M39 (Zuurfontein Road)

The address being No **1 Hytor Street, Chloorkop, Kempton Park, Gauteng Province** – Ekurhuleni Metro – South Africa

Chloorkop is a large industrial area that encompasses several existing and developing industrial parks – including the Chloorkop landfill, a quarry, and cement and brick plants. Surrounding this is light to medium industrial activities, such as logistics warehousing, automotive, chemical storage and manufacturing businesses

Fig 4.2: Orientation Map:



4.1 Details of the Proposed Plant

The proposal entails construction and operation of a caustic soda (known as **sodium hydroxide**) make-up plant. The proposed construction and operation will be situated at ERF 198 of Chloorkop-IR. The proposed development aims to operate autonomously with its own two entrances, security access, weighbridge, warehouse, production facility tank farm and staff quarters. The proposed caustic make-up plant involves the dissolution, storage and loading of approximately **5000 tones (LMT)** of caustic soda per month at a 45-50% weight of desired caustic solution concentration on the site which measures 1,875867 hectares in extent. African Chemicals wishes to import dry caustic, which will be distributed to the newly proposed facility in Johannesburg (Chloorkop), City of Ekurhuleni metropolitan in Gauteng Province, where it will be dissolved into lye form releasing excessive heat and thereafter loaded to customer tanker trucks. The dissolution, storage and loading of all this form part of the **Caustic Make-up Plant.**

- The proposed Caustic Make-up Plant process is expected to produce caustic lye at estimated **5000 tones** per month at 45-50% weight by weight (w/w) desired caustic solution concentration.
- In Africa, solid caustic soda is delivered from 25 kg up to 1250 kg of bags on pallets in 20-foot or 40-foot containers. Most solid caustic soda is imported from the Middle East, India and China, while liquid caustic soda is imported from Europe, the US and the Middle East. Liquid caustic soda is imported in tankers. The typical liquid caustic soda cargo size is 3,000-5,000 (Dry Metric tonnes) DMT/shipment and this is also the case in northwest Europe for exports.
- The plant will be the 5th largest source of caustic soda in Southern Africa and will service inland consumers and SADC countries.

4.2 Features

Caustic soda (also known as sodium hydroxide) is an alkali salt that is white in solid form and clear (colorless) in liquid from. The compound is highly soluble in water and predominantly processed to form a saturated solution of ~50% concentration (lye form). In solid form, it is available as pearls as well as flakes. Caustic soda is widely used in a variety of sectors. It serves as a reactant in the production of organic chemicals and used in the making of paints, glass, ceramics and fuel cell production. Caustic soda historically, used in the manufacture of soaps and detergents and is prevalent in the pulp and paper industry for separating cellulose fibers from lignin that originate in plant material. As a strong base, it is frequently used in the neutralization of acids or simply to increase the alkalinity of a mixture. Other uses include the production of mineral oils (e.g. greases), bleaching in the textiles sector and creation of pharmaceutical compounds.

It readily absorbs moisture as well as carbon dioxide in the air. Dissolving the salt in water, results in a highly exothermic reaction (i.e. a reaction that releases heat) which, poses a safety hazard unless controlled.

In Africa, solid caustic soda is delivered between 25 kg up to 1250 kg bags on pallets in 20-foot or 40-foot containers. Most solid caustic soda is imported from the Middle East, India and China, while liquid caustic soda is imported from Europe, the US and the Middle East. Liquid caustic soda is imported in tankers. The typical liquid caustic soda cargo size is 3,000-5,000 DMT/shipment and this is also the case in northwest Europe for exports (ICIS: 2015)

Caustic soda is one of African Chemicals core products which has vast experience in its technical and commercial aspects. African Chemicals specialises in supplying caustic soda in solid flake as well as in lye form (dissolved in water) which will be according to the any customer's **desired concentration and packaging.** AC has capacity to set-up a lye caustic soda production plant at any client's premises in order to sell as consignment stock which minimizes inventory on hand for customer and that will guarantee security of supply no matter what occurs in the external market.

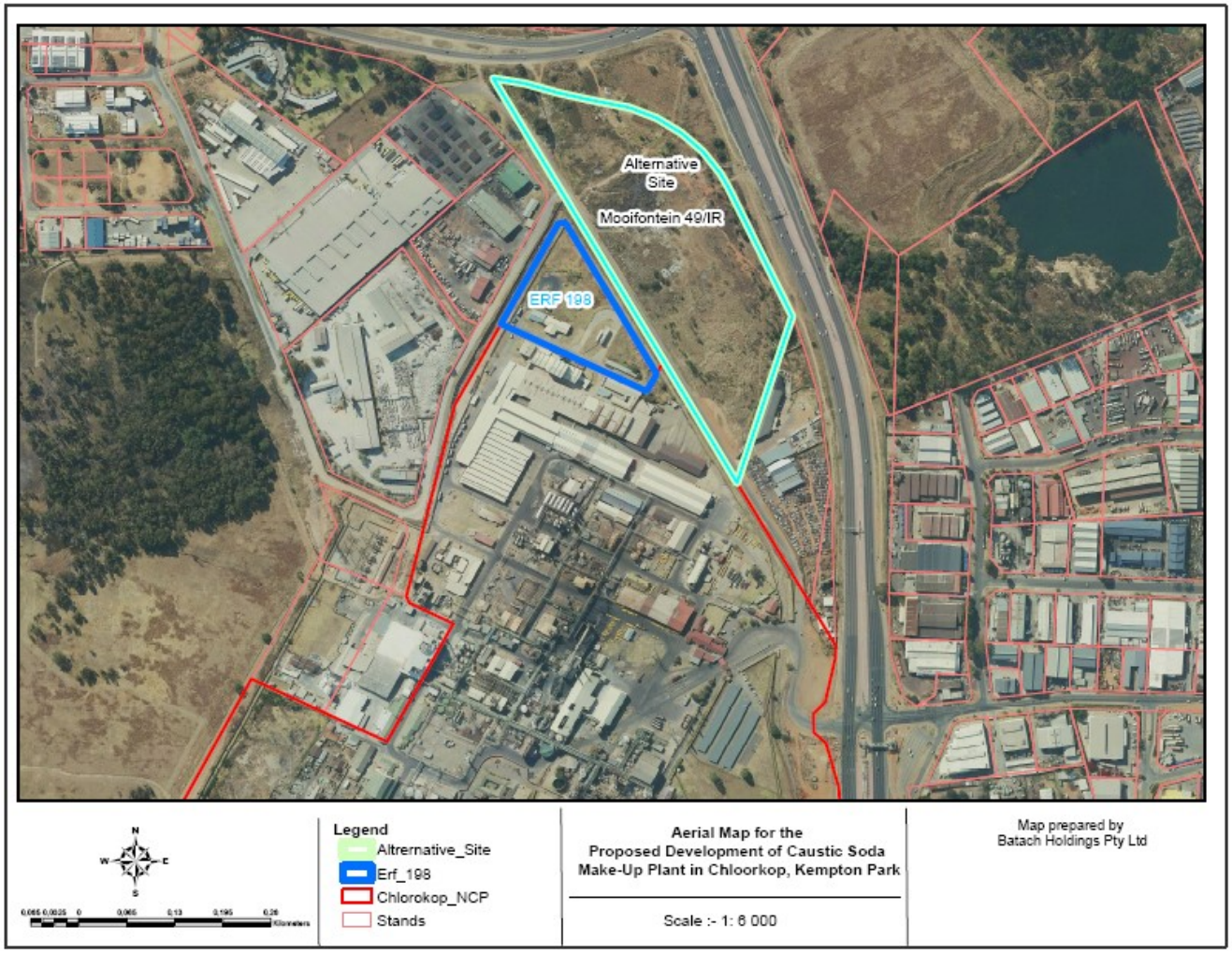


Fig 4-1

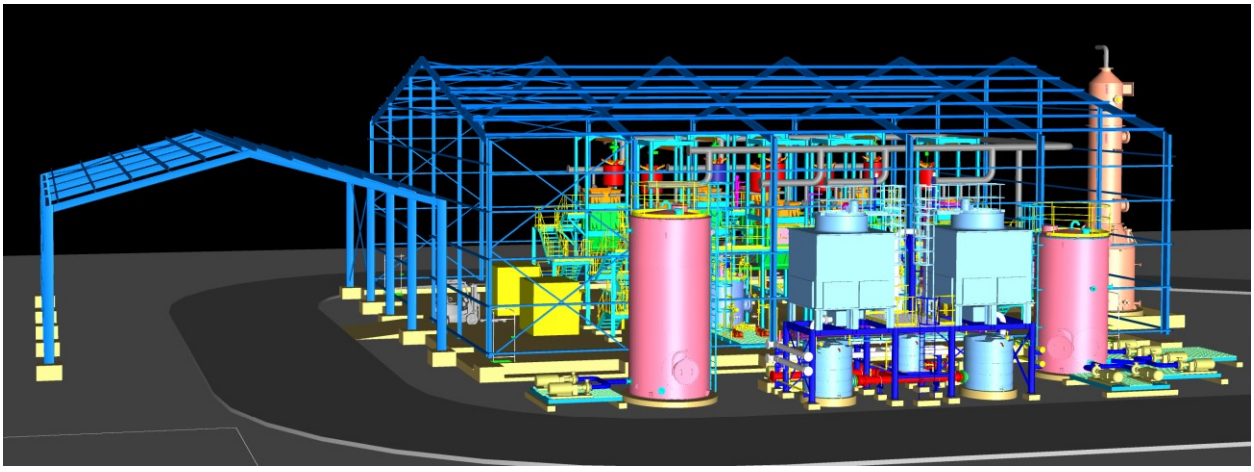


Fig 4-1-1 - 3-D Model – Warehouse

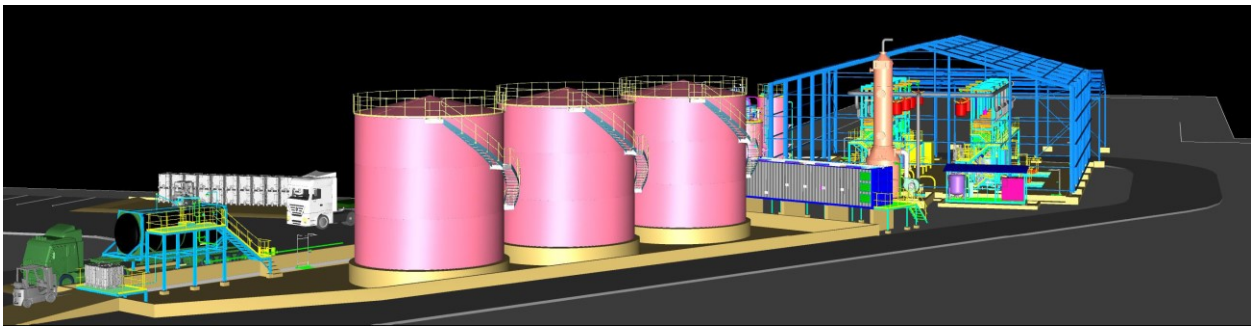


Fig 4-1-2 - 3-D Model – Tank farm

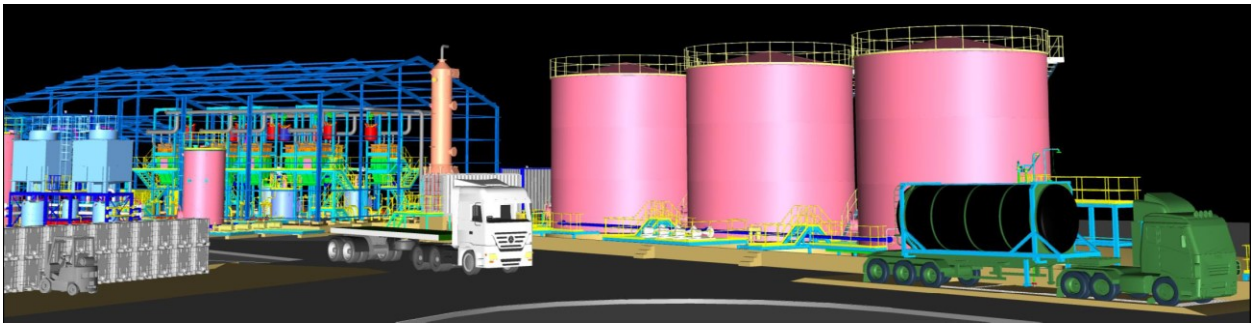


Fig 4-1-2 - 3-D Model – Tank farm

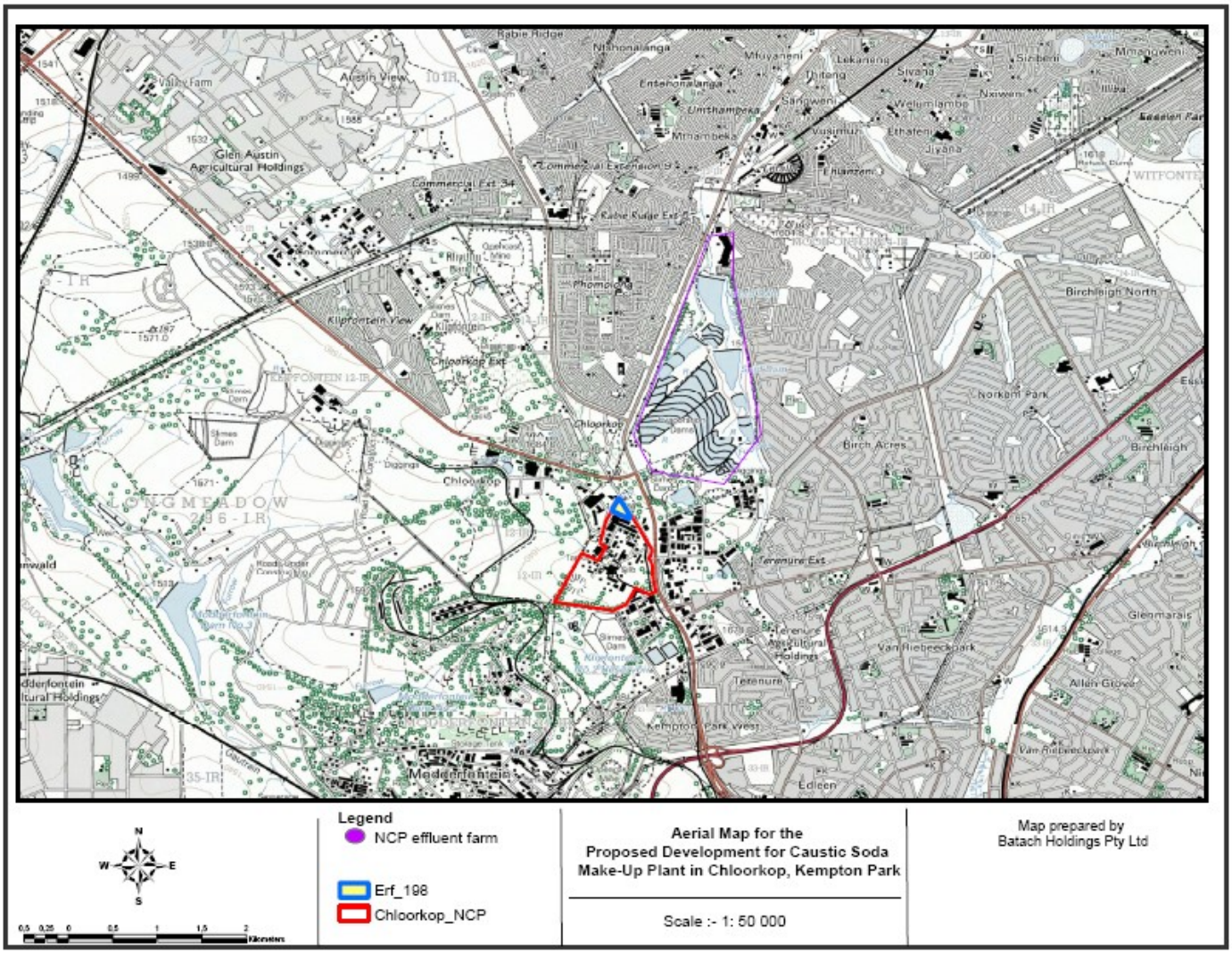
Country	**South Africa**
Province:	Gauteng
Municipality:	Ekurhuleni Metropolitan
Town:	Kempton Park
Suburb:	Chloorkop
Zone:	Industrial 1
GIS key	K5700000000019800000
Erven	198
Venus Code	K570000000001980000000000000
GIS KEY	K5700000000019800000
Property Description	ERF 198

code

Table 4-1: Surveyor general

MAP (with correct scale) 1: 50 000

FIGURE 4-2



5. Project Description

In accordance with Item 2(1) (d) (ii) in Appendix 2 of GN 326, this chapter provides a description of the proposed activities, including associated structures & infrastructure.

- The proposal entails construction and operation of a caustic soda (known as sodium hydroxide) make-up plant.
- The proposed Caustic Make-up plant will entail the plant new proposed infrastructure - weighbridge, warehouse, production facility, tank farm and 2 (two) proposed entrances to the site. The plant is designed to be fully automated and the make-up tank will be fed through weigh feeders which will ensure consistent product quality.
- The proposed caustic make-up plant involves the dissolution, storage and loading of approximately 5000 tones (LMT) of caustic soda per month at a 45-50% weight of desired caustic solution concentration
- The proposed construction and operation will be situated at ERF **198, Chloorkop-IR**, within the City of Ekurhuleni metropolitan in Gauteng Province.
- African Chemicals wishes to import dry caustic, transport it to the newly proposed facility where it can be dissolved into lye form and loaded into customer tanker trucks.

The company has decided to import the product in solid form, transport it by road to Johannesburg, and dissolve it back into lye form before placing the product into the market. The dissolution of Caustic Soda is hazardous because of an exothermic chemical reaction (release of excessive heat) that takes place when the product is mixed with water. Therefore, the temperature in the dissolution vessel needs to be controlled using a suitable cooling system (AC, 2020).

- The production of caustic lye required is estimated to be 5000 tonnes per month at 45-50% (w/w).
- The caustic flakes will be delivered in 1000 kg or 1250 kg bulk bags and stored in a warehouse
- The Caustic Lye, at a 50% w/w concentration, will be stored at 40 degrees Celsius (°C) in heated bulk storage tanks to prevent crystallization

5.1 Why does the project require an Environmental Impact Assessment?

The project involves activities that are listed published under Government Notice No. 984 in Gazette No. 38282 on 4 December 2014 in terms of sections 24(2), 24(5), 24D and 44, read with section 47A(1)(b) of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as set out in the (Government Notice 325). Where a Full Scoping and Environmental Impact Reporting (S&EIR) process must be undertaken as described in the EIA Regulations to obtain the necessary environmental authorisation.

The (S&EIR) process entails:

- Submit an application form
- Submission of scoping report to competent authority
- Consideration of scoping report
- Public Participation process
- Submission and consideration of environmental impact assessment reports and an EMPr together with MHI
- Decision on S&EIR application

5.2 Project Motivation: Scope of Facilities and Process description

The sub-sections below provide further information in terms of the design specifications. The project scope includes the supply and installation of a new caustic offloading, dissolution, storage and dispatch facility. Utility areas such as instrument air, dust scrubbing, demin water, cooling water and hot water storage and distribution are also included. A containerised MCC and control room, to supply power to, and control equipment within the caustic make-up plant, will also form part of the technology partner (ProProcess) scope and connection. The Plant layout design as indicated below summarizes the Scope of facilities and area of operation.

5.3 Production inputs (i.e. utilities, feed stocks and consumables)

African Chemicals has decided to import the product in solid form, transport it by road to Johannesburg, and dissolve it back into lye form before placing the product into the market. The dissolution of Caustic Soda is hazardous because of an exothermic chemical reaction (release of excessive heat) that takes place when the product is mixed with water. Therefore, the temperature in the dissolution vessel needs to be controlled using a suitable cooling system

5.4 Process Objective

The technology partner (ProProcess) detailed the objective of the facility that it "is to receive caustic flakes or prills delivered to the battery limit in bulk bags. Material handling systems will debag and meter the caustic flakes to the dissolution tanks. Due to the exothermic nature of the caustic dissolution system, heat will be removed from the dissolution tanks by external heat exchangers. Caustic lye will then be stored in bulk storage tanks from where it will be loaded to either bulk tankers or IBCs" AC 2020.

5.5 FEED Definition

The facility will then receive bulk bags of caustic flakes or prills which are offloaded and stored in the warehouse minimum of 5000 tones/per month dry which comes in the form of 1 – 1.25 ton bulk bags. The Caustic Lye, at a 50%w/w concentration, is then stored at 40 degrees Celsius (°C) in heated bulk storage tanks to prevent crystallization.

Parameter	Unit	Range	Source
Total inventory turnover / yr	tonnes/month	5000 (Dry NaOH /equivalent)	African Chemicals (CLN)

Feed Definition. Parameter	Unit	Source
Caustic Feed	1 ton or 1.25-ton Bulk Bags	African Chemicals (CLN)

5.6 Feed Properties:

Parameter	Unit	Description	Source
Generic name		**Caustic Flakes of Prills**	African Chemicals (CLN)
Composition		NaOH - % Fe - % Cl - %	African Chemicals (CLN)
Water solubility (20°C)	g/l	1.26	Engineering Handbook Data

Parameter	Unit	Description	Source
Density (20°C)	kg/m3	2130	Engineering Handbook Data
Bulk Density (20°C)	kg/m3	1150 (Caustic Flakes)	Engineering Handbook Data
Chelating resin	0,01 litres		
The Caustic Lye			
Generic name	Caustic Lye		African Chemicals (CLN)
Composition	NaOH . 47% min Na2CO3 . 0.2% max		African Chemicals (CLN)

(Source: Pro-Process 2020)

5.7 Power Supply

The required power supply: African Chemicals to provide power (400 V3 phase, 50Hz) and the 630A existing feeder in the substation from the existing MCC to the new containerized MCC

Parameter	Unit	Range
Low Voltage Supply	V	400
Frequency	Hz	50
Phase		3

5.8 Battery Limits

The following battery limits apply to the Caustic Make-up Plant project:

5.9 Process

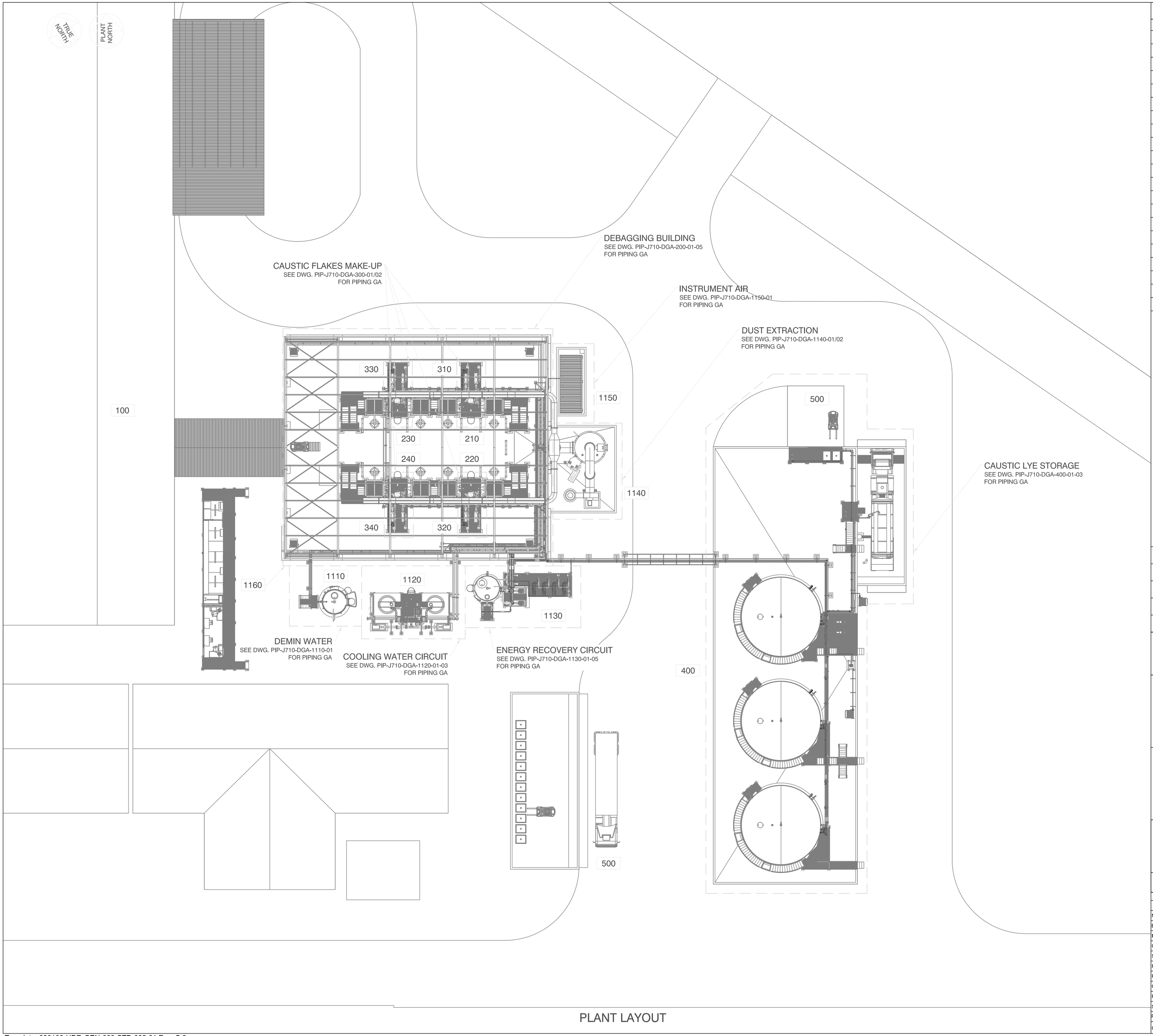
In: Caustic flakes in 1-ton bulk bags
Demin water supply (from New RO Plant to be installed)
Potable water supply (from the water authority)

Out: Caustic lye tanker load-out
Caustic lye IBC load-out
Boiler feed water return

5.10 Structural Process Description

The Plant layout designs below are categorised from Area 200 up to Area 1160 below, (Diagram below) indicate the supply and installation of new structures and skids for all areas, including the: Process area, shed (to house the caustic lye debagging and dissolution area). Offloading area cover (joining area 100 to area 200/300) (See the Layout section 5.4.1 below)

5.11 LAYOUT DESIGN



PLANT LAYOUT

AREA LEGEND

AREA	SUB-AREA	DESCRIPTION
000		SITE INFRASTRUCTURE
100		WAREHOUSE
200		SOLIDS HANDLING
	210	TRAIN 1
	220	TRAIN 2
	230	TRAIN 3
	240	TRAIN 4
300		CAUSTIC DISSOLUTION
	310	TRAIN 1
	320	TRAIN 2
	330	TRAIN 3
	340	TRAIN 4
400		CAUSTIC LYE STORAGE
500		CAUSTIC LYE LOAD-OUT
1100		SERVICES AND UTILITIES
	1110	DEMIN WATER
	1120	COOLING WATER
	1130	ENERGY RECOVERY SYSTEM
	1140	CAUSTIC DUST EXTRACTION
	1150	INSTRUMENT AIR SYSTEM
	1160	POTABLE WATER

PRELIMINARY

	CLIENT INFO	INTERNAL INFO
JOB No. / PACKAGE No.:		
PURCHASE ORDER No.:		
QUANTITY REQUIRED.:		
DOCUMENT NUMBER.:		

☐ FABRICATION ☐ QUOTATION

☐ APPROVAL ☐ INFORMATION

REFERENCE

REF. DRAWING. No.	TITLE

REVISIONS

REV.	DATE	DESCRIPTION	BY	CHKD.	APPR.
B.2	2021-01-11	ISSUED FOR CLIENT COMMENT	NF		
B.1	2020-04-22	ISSUED FOR CLIENT COMMENT	NF	PDP	SBB
A.1	2020-04-17	ISSUED FOR INTERNAL COMMENT	NF	PDP	SBB

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ELECT.		
INSTR.		
CIVIL		
STRUCT.		
PIPING		
PROCESS		
QC. ENG.		
PROJ. ENG.		
SECT. LDR.		
PROJ. MNG.		
CLIENT		

DESIGNED, DRAWN AND ISSUED BY PROPROCESS

PROFESSIONAL ENG. / TECH.:- .....

ECSA REG. NO.:- ..... REV.:- .....

J710 - CAUSTIC MAKE-UP PLANT

AREA 000

INTERPLANT

PIPING PLANT LAYOUT - NEW CONCEPT

SCALE 1:200 | A1 | CLIENT: AFRICAN CHEMICALS

PROJECT NUMBER - COST CODE - DISCIPLINE - AREA NUMBER - DOC. TYPE - SEQUENCE - SHT. | REV.

110942-HDR-PIP-J710-DGA-000-01 | B.2

User Name: Nicole Forte Date: 11 January 2021 17:01:36

Path: Z:\1-Design\1-P3D\PROJ\110942-PPC-EQUIPMENT PROJECTS\J710-AFRICAN CHEMICALS CAUSTIC MAKE-UP\J710-NEW CONCEPT\Orthos\DWGs\110942-HDR-PIP-J710-DGA-000-01-PLANT PLOT PLAN.dwg

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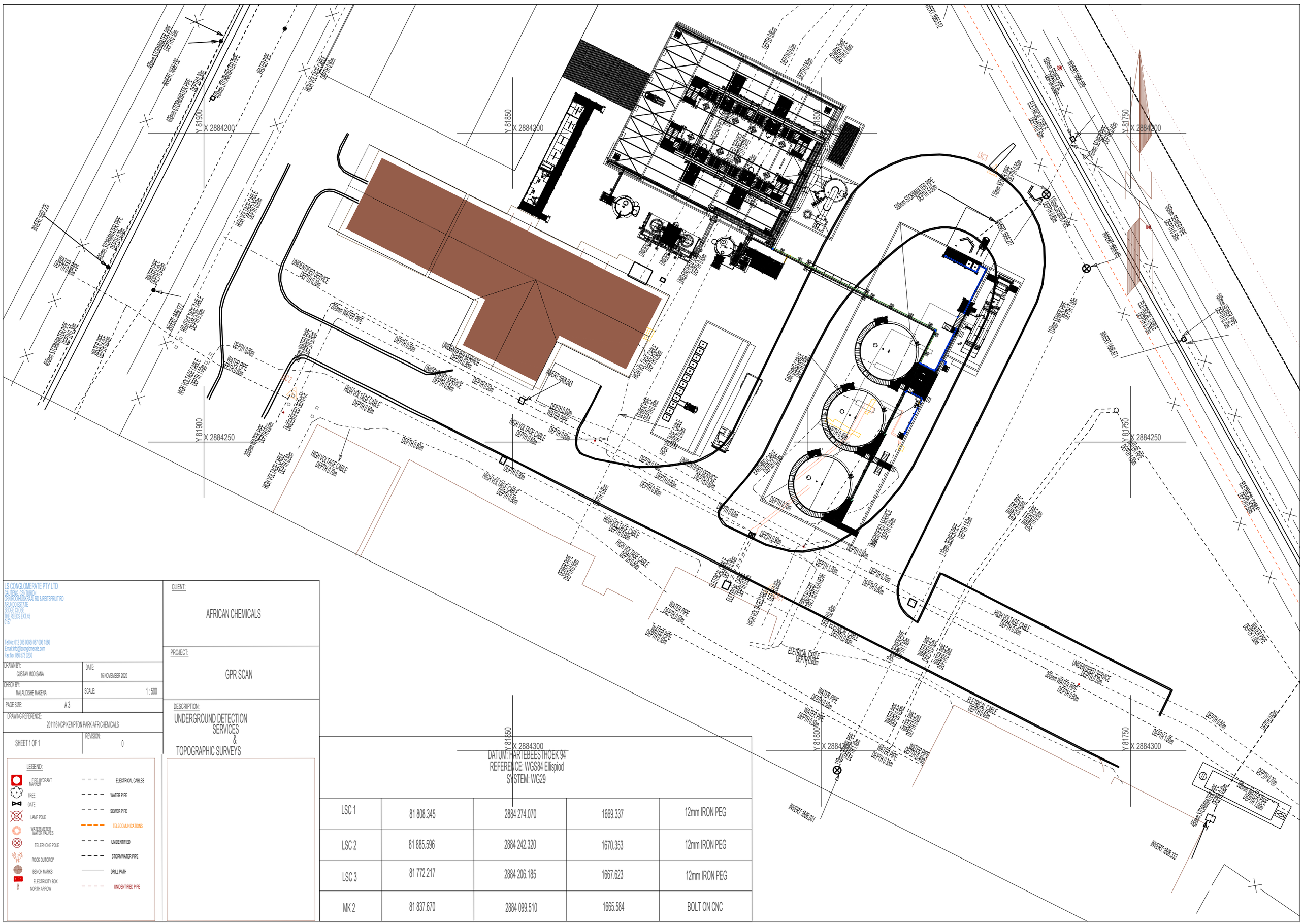

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0157

Tel No: 012 005 0056/ 087 006 1586
Email:Info@lsconglomerate.com
Fax No: 086 573 0230

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SHEET 1 OF 1	REVISION: 0

CLIENT:

AFRICAN CHEMICALS

PROJECT:

GPR SCAN

DESCRIPTION:

UNDERGROUND DETECTION SERVICES & TOPOGRAPHIC SURVEYS

LEGEND:

- FIRE HYDRANT MARKER
- TREE
- GATE
- LAMP POLE
- WATER METER WATER VALVES
- TELEPHONE POLE
- ROCK OUTCROP
- BENCH MARKS
- ELECTRICITY BOX
- NORTH ARROW
- ELECTRICAL CABLES
- WATER PIPE
- SEWER PIPE
- TELECOMUNICATIONS
- UNIDENTIFIED
- STORMWATER PIPE
- DRILL PATH
- UNIDENTIFIED PIPE

Y 81850 X 2884300
DATUM: HARTEBEESTHOEK 94
REFERENCE: WGS84 Ellispiod
SYSTEM: WG29

LSC 1	81 808.345	2884 274.070	1669.337	12mm IRON PEG
LSC 2	81 885.596	2884 242.320	1670.353	12mm IRON PEG
LSC 3	81 772.217	2884 206.185	1667.623	12mm IRON PEG
MK 2	81 837.670	2884 099.510	1665.584	BOLT ON CNC

5.12 Area 200: Caustic Flakes Debagging

There will be two debagging systems per train. The two debagging systems will operate alternatingly to allow for continuous debagging of the caustic flakes and feed to the dissolution tanks, i.e. while one is in operation the other is being prepared to continue debagging once the first debagging sequence is done.

The caustic flakes will be delivered in 1000 kg or 1250 kg bulk bags and stored in a warehouse. The bulk bags are transported by a forklift from the warehouse and positioned into the Bag Conditioner. The bulk bags are conditioned to break up large lumps of flakes that formed during transportation and storage. There are two Bag Conditioners for the four debagging trains.

The conditioned bulk bag will be transferred by a forklift from the Bag Conditioner to the Caustic Bulk Bag Hoists. The bulk bag is fixed to one of the two Hoist Lifting Cradles. The operator uses a hand-held pendant to lift the bulk bag with the Caustic Bulk Bag Hoist and positions it above the Bag Breaker. The operator will then lower the bag onto the Bag Breaker, which cuts the bag and empties the contents into the Caustic Weigh Hopper.

The Caustic Lump Breaker, situated inside the hopper, will keep the caustic flakes mobile and break up larger lumps which may be present. The Caustic Weigh Hopper is situated on top of four load cells, which will record the weight of debagged caustic flakes. The Caustic Metering Screw Feeders are on VSD so that rate of the caustic flakes fed to the Dissolution Tanks can be controlled. This is done for ratio control of the caustic flakes and demin water to achieve the desired caustic solution concentration (45-50%).

5.13 Area 300: Caustic Dissolution

The caustic flakes will then be mixed with a calculated amount of water, based on the weight of caustic flakes added, in the Caustic Dissolution Tank. The caustic flakes and water in the Caustic Dissolution Tank are mixed by the Caustic Dissolution Tank Agitator, to ensure homogenous dissolution. The caustic flakes dissolution is exothermic, causing heat generation during dissolution. The Caustic Dissolution Tank Fan draws out the hot water vapours that form in the Caustic Dissolution Tank due to the heat of dissolution. Removing the water vapour which allows dry air to be pulled through the Caustic Metering Screw Feeder opening. This prevents the caustic solids in the Caustic Metering Screw Feeder from getting wet, preventing blockages. The excess heat is removed by circulating the liquid caustic solution (caustic lye) through an external plate heat exchanger, the Caustic Dissolution Cooler, to maintain a temperature in the Caustic Dissolution Tank of 120 °C.

The heat will be removed by hot water from the Energy Recovery Circuit. Once dissolved the caustic lye is transferred from the Caustic Dissolution Tank through a plate heat exchanger, the Caustic Lye Cooler, which will cool down the caustic lye, using cooling water from the Cooling Water Circuit, to 60 °C. From the Caustic Lye Cooler, the caustic lye product is transferred to the Caustic Lye Storage area. The caustic lye product is passed through a Coriolis flowmeter before the storage area to measure the mass flow and concentration, using the caustic lye density as described further below. All piping containing caustic lye is lagged and Heat Traced to prevent the caustic lye's temperature from falling below the temperature at which the caustic will crystallise.

5.14 Area 400: Caustic Lye Storage

The caustic lye product is transferred by the Caustic Lye Transfer Pump into one of three Caustic Lye Storage Tanks. The temperature in the Caustic Lye Storage Tank is maintained by a Heating Bayonet Coil at 40 °C. This prevents the caustic from crystallising. An automated open/close valve is used as protection from overfilling the storage tank by selecting which storage tank is being filled. The automated valve will open allowing the caustic lye to be transferred into the next storage tank, when one of the storage tanks is full.

5.15 Area 500: Caustic Lye Load-Out

The caustic lye will then be loaded from the Caustic Lye Storage Tanks into either IBC's or a caustic lye tanker truck. The caustic lye is loaded into the IBC s using the Caustic Lye IBC Loading Pump and Loading Arm. Once the target mass of caustic lye has been added to the IBC, as measured by load cells under the IBC, the loading is stopped. Similarly, for the tanker truck loading, the caustic lye is loaded into the tanker truck using the Caustic Lye Loading Pump and Loading Arm. Once the flow-meter after the Caustic Lye Loading Pump has registered that the target mass has been transferred, the loading is stopped.

5.16 Area 1130: Energy Recovery Circuit

Hot water from the Energy Recovery Circuit is used for cooling of the Caustic Dissolution Tank and heat recovery. For the dissolution cooling, hot water from the Hot Water Storage Tank is circulated through the Caustic Dissolution Cooler by the Hot Water Supply Pumps, thereby removing excess heat evolved during the dissolution. Heating of the Caustic Lye Storage Tanks is done by circulating the hot water at 90 °C through the Heating Bayonet Coils using the Caustic Lye Storage Hot Water Pumps. The temperature in the Hot Water Storage Tank is maintained by circulating the hot water through external plate heat exchangers, using the Hot Water Circulation Pumps. The heat from the hot water is removed in the Boiler Feed Water Heaters. The Boiler Feed Water Heaters use the heat from the hot water in

the Energy Recovery Circuit to increase the temperature of boiler feed water from demin water supply feeding NCP from 60°C to 80 °C. Any excess heat not removed by the boiler feed water is removed by cooling water from the Cooling Water Circuit in the Hot Water Heaters.

5.17 Area 1110: Demin Water Storage and Distribution

The Demineralised Water Storage Tank is topped up with demin water from the New RO Plant supply. An automated open or closed valve will control the demin water top up as described below in more detail. The demin water is supplied to the other areas from a header at a regulated pressure, which ensures all distribution points have the same pressure. The header returns to the Demin Water Storage Tank.

5.18 Area 1120: Cooling Water Circuit

Cooling water from the Cooling Water Circuit is used to remove excess heat from the Caustic Dissolution area and from the Energy Recovery Circuit as described above. The temperature of the cooling water is maintained by removing heat in the Cooling Towers. Cooling water is supplied to other areas by the Cooling Water Pumps before returning to the Cooling Towers after removal of heat from the other areas.

5.19 Area 1140: Caustic Dust Extraction

The plant is propose to be a zero effluent. The Caustic Scrubber Fan into the Caustic Scrubber will extract the dust that is created during the caustic flakes debagging. Demin water is added as scrub liquor in the Caustic Scrubber. The Caustic Scrubber Recirculation Pump circulates the scrub liquor through sprays in the Caustic Scrubber. A bleed from the circulation removes excess caustic solution to the Caustic Dissolution Tank once a high level is detected in the Caustic Scrubber. Normal operation is for the bleed to be to be directed to the first train Caustic Dissolution Tank, however manual valves can be used to direct the bleed to any of the Caustic Dissolution trains.

5.20 Area 1150: Utilities Instrument Air

Instrument air will be generated by a screw compressor and stored in an air receiver at 6 Bar. The air receiver is a 2m³, vertical tank complete with safety relief valves. From the air receiver, the air moves through a desiccant dryer and dust filters, ensuring clean, dry air is supplied to the plant. This air moves through the instrument air supply header to areas 310, 320, 330, 340, 400, 1110 and 1130 where air distribution headers distribute the air to the relevant instruments.

5.21 Area 1160: Utilities – Potable Water Circuit

The potable water circuit will tie-in to the local water authority in the area, to supply point and distribute potable water to various areas throughout the plant. A flow meter will be fitted near the tie-in point to measure the supplied potable water used by the process plant. It is also worth noting that the plant produces zero effluent.

6 Legal Requirements - Legislative Context

The report has made provision to accommodate all applicable legislation, policies and guidelines. The activity entails the construction and operation of a caustic make-up plant which have impact in the National Environmental Management Act, 1998 (Act No 107 of 1998 as amended) and the National Environmental Management Air Quality Act, (Act No 39 of 2004). The Gauteng Environmental Management Framework, 2015 (GEMF, 2015) which identifies the proposed site as an Environmental Management Zone 5. The Air Quality Management Plans – Gauteng Province, Ekurhuleni Metropolitan Municipality, Highveld Priority Area

In accordance with Items 2. (1)(d)(i) And 2.(1)(e) in Appendix 2 of GN 326, this chapter provides:

- A description of all listed and specified activities triggered.
- A description of the policy and legislative context within which the development is proposed, including identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to the assessment process.

Other Relevant legislation, policy, programmes and plans relating to the proposed development consulted:

- The South African Constitution Act 108 of 1996.
- National Environmental Management (NEMA) Act 107 of 1998.
- NEM: WA - Waste management Act 59 of 2008.
- National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004
- National Water Act, 1998 (Act No. 36 of 1998NEM: BA – Biodiversity Act.
- Heritage Act
- Health and Safety Risk.
- Planning.
- Municipal bylaws and permits.
- Local policies, programmes and plans.
- Critical Infrastructure Act 08 of 2019 – for National Key Points

Other Legislative Requirements that are applicable to the Proposed Caustic soda and lye.

6.1 Other Legislations

- Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)
- Hazardous Substances Act, 1973 (Act No. 15 of 1973)
- Storage & Distribution
- API 650 *Welded Steel Tanks for Oil Storage.*
- *NACE SP0403-2015 Avoiding Caustic Stress Corrosion Cracking of Carbon Steel Equipment and Piping* Electrical
- SANS 10142 *Wiring of premises* Piping and Fittings
- ASME B16.5 *Pipe flanges and flanged fittings. NPS ½ through NPS 24.*
- ASME B16.9 *Factory-made wrought steel butt-welding fittings.*
- ASTM A106 *Specification for seamless carbon steel pipe for high-temperature service.*
- ASTM A312 *Specification for seamless and welded stainless steel pipes.*
- SANS 10140-3 *Identification colour markings. Part 3: Contents of pipelines.* Fire Protection
- SANS 10400 *National Building Regulations*.
- SANS 10105. 2 *The use and control of fire-fighting equipment – Fire hose reels and*

6.2 South African Constitution

The Constitution of the Republic of South Africa Act 108 of 1996 is the supreme law of the land. In terms of environmental management, the Constitution provides the overarching framework for sustainable development, including the protection of natural resources while promoting economic and social development.

Relevance to this application:

The environmental clause in Section 24 of the Constitution provides that: *"Everyone has the right –*

a) To an environment which is not harmful to their health or wellbeing.

b) To have the environment protected for the benefit of present and future generations through reasonable legislation and other measures that:

(i) Prevent pollution and ecological degradation;

(ii) Promotes conservation

(iii) Secure ecologically sustainable development and the use of natural resources while promoting justifiable economic and social development."

6.3 Environmental Management Act 107 of 1998 (NEMA)

The National Environmental Management Act 107 of 1998 (NEMA) provides for co-operative governance by establishing decision-making principles on matters affecting the environment including:

- Sustainable development.
- Integrated environmental management.
- Polluter pays principle.
- Cradle to grave responsibility.
- Precautionary principle.
- Involvement of stakeholders in decision-making.

The enforcing authority for NEMA is the DEA and provincial environmental authorities (for this application is Gauteng Department of Agriculture and Rural Development (GDARD) – "the competent authority". NEMA provides for the management and protection of environmental resources through inter alia the imposition of Environmental Authorisation requirements. The NEMA listed activities as described below triggered by the development and operation of the proposed caustic soda plant, and will subsequently require authorisation. As activities from Listing Notice 2 are triggered, an S&EIR process is being undertaken.

S&EIR process must be followed in terms of the 2014 EIA Regulations as amended in 2017 and in terms of the

Summary of Listed activities :

Table 6-1

Number and date of the relevant notice	Activity No(s) in terms of the relevant notice	Description of each listed activity
GN. R. 325 7 April 2017	Activity 4	*"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 more than 500 cubic metres."*
GN. R. 325 7 April 2017	Activity 6	*"The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent."*
GN. R. 325 7 April 2017	Activity 7	*"The development and related operation of facilities or infrastructure for the bulk transportation of dangerous goods*

6.4 Waste Management Act (NEM:WA)

The National Environmental Management: Waste Act 59 of 2008 (NEM:WA) regulates waste management in order to protect the health and environment of South African citizens. This is achieved through pollution prevention, institutional arrangements and planning matters, national norms and standards and the licencing and control of waste management activities. The enforcing authority for NEM:WA is the DEA for hazardous waste and the provincial environmental authority (Gauteng Department of Agriculture and Rural Development - GDARD) for general waste. A list of waste management activities that have, or are likely to have, a detrimental effect on the environment was published in terms of NEM:WA under GN 921 on 29 November 2013 (as amended by GN 1094, 11 October 2017). Waste management activities are listed in three categories (Category A, B and C).

Activities listed in Category A require that a BA process to be undertaken as part of the application for a Waste Management Licence (WML), while activities listed in Category B require that an S&EIR process be undertaken for the WML application. Waste activities listed in Category A and B include:

- Storage of waste in lagoons (excluding effluent, wastewater and sewage).
- Reuse, recycling or recovery of waste.
- Treatment of waste.
- Disposal of waste on land.
- Construction, expansion or decommissioning of facilities and associated structures and infrastructure.
- Residue stockpiles or residue deposits.

Various thresholds are stipulated in Category A and B which determine whether the listed waste management activities require application for a WML and if so, whether a BA or S&EIR application is required. Based on a review of the proposed activities, it is deemed that a separate Basic Assessment will be submitted for the application for a WML is required for the activities listed below: -

- Caustic Flakes – empty bags
- Empty bags and bag liners after debagging of caustic flakes - 1 ton or 1.25-ton Bulk Bags

Category C lists waste management activities for which no WML is required, but a person commencing, undertaking or conducting these activities must comply with the relevant requirements or standards. The National Norms and Standards for the Storage of Waste (GN 926, 29 November 2013) may potentially be applicable to the proposed development in the following circumstances:

- The storage of general waste at a facility that has a capacity to store in excess of 100 m³ of general\ waste at any one time, excluding the storage of waste in lagoons or temporary storage of such waste.
- The storage of hazardous waste at a facility that has the capacity to store in excess of **80 m³** of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons or the temporary storage of such waste.

The National Norms and Standards for the Sorting, Shredding, Grinding, Crushing, Screening, or Bailing of General Waste (GN 1093, 11 October 2017) may potentially be applicable to the proposed development in the following circumstances –

- The sorting, shredding, grinding, crushing, screening or bailing of general waste at a waste facility that has an operational area that is 1 000 m² and more.
- A waste facility that has an operational area that is less than 1 000 m² must comply with Section 4(4) of the Norms and Standards only.

Section 19(1) of NEM:WA states that; "No Person may commence, undertake or conduct a waste management activity listed in this schedule unless a license is issued in respect of that activity.

Summary of Listed activities:

Table 6-2

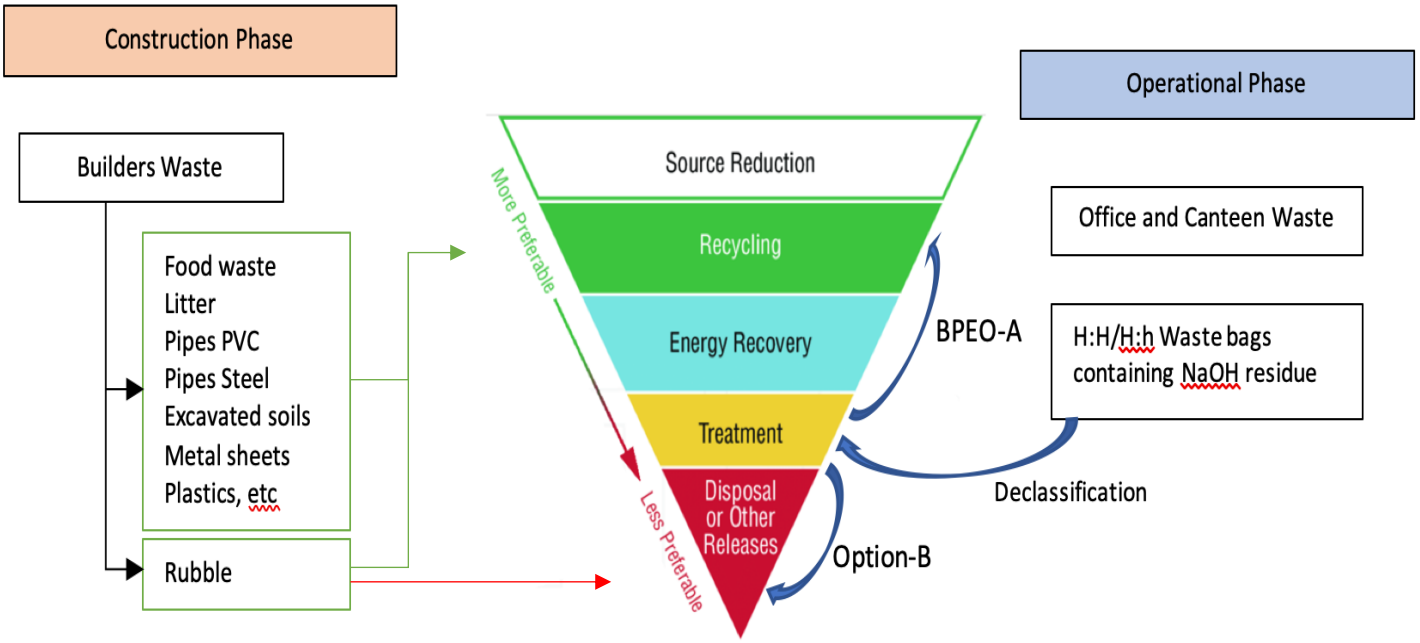
Number and date of the relevant notice	**Activity No(s) in terms of the relevant notice**	**Description of each listed activity**	**Applicability and Assessment process**
GN R 921, CATEGORY A	(11)	The disposal of domestic waste generated on premises in areas not serviced by the municipal service where the waste disposed exceeds 500 kg per month.	Although unlikely, this may be triggered pending the proposed manner in which waste will be handled.

Table 6-3

Relevance to the Caustic Soda Development and Operation	
Construction	**Operation**
• General Solid waste generated during construction (e.g. rubble, litter, excavated soil etc)	• Solid Waste generated during the debagging phase. • Bursting of Bags containing NaOH flakes (~ 1Ton) • Waste Stream is waste bags with residual NaOH On average approximately 167 waste bags material generated per day • Stored until collection by reputable contractor **Hazardous compound** • Corrosive • Toxicity • Risk • Acceptable Environmental Risk • Has a moderate Hazard Rating

The Act 59 of 2008, list of waste management activities that have, or are likely to have, a detrimental effect on the environment, states that, a person who wishes to commence, undertake or conduct a waste management activity listed under Category A

1) must conduct a basic assessment process set out in the Environmental Impact Assessment Regulations made under section 24(5) of the National Environmental Management Act, 1998 (Act 107 of 1998) as part of a waste management licence application contemplated in section 45 read with section 20(b) of the Act



The proposed construction may not cause detrimental environmental impacts. The listed waste activities will not be treated or disposed on site, and the volumes temporarily stored on site are small with at least (maximum of 6 m^3 in skip bins which will be removed off site weekly by a contracted services). However, all generators of waste (excluding generators of domestic waste), are required to adhere to the requirements set out in the NEM:WA Waste Classification Regulations of 2013. One of these requirement is for generators of waste to classify all waste generated within 180 days of generation.

The empty bags of caustic soda and lye requires a certain level of adherence to the requirements of waste classification regulations. The 2013 National Norms and Standards for Storage of Waste (such as demarcation, etc.) are to be included in the Environmental Management Programme (EMPr) and adhered to as a part of good environmental management practice for African Chemicals site.

6.4.1. Relevance to the proposed development:-

All reasonable measures must be taken to avoid the generation of waste and, where such generation cannot be avoided, minimise the toxicity and amounts of waste that are generated; reduce, re-use, recycle and recover waste; where waste must be disposed of, ensure that the waste is treated and disposed off- in an environmentally sound manner;

- Manage the waste in such a manner that it does not endanger human health or the environment or cause a nuisance through odour or visual impacts;
- Prevent any employee or any person from contravening this Act and prevent the waste from being used for an unauthorised purpose

The Waste specialist will detail the issues during the EIA and recommendations thereof.

6.4.1. WASTE Materials Flow

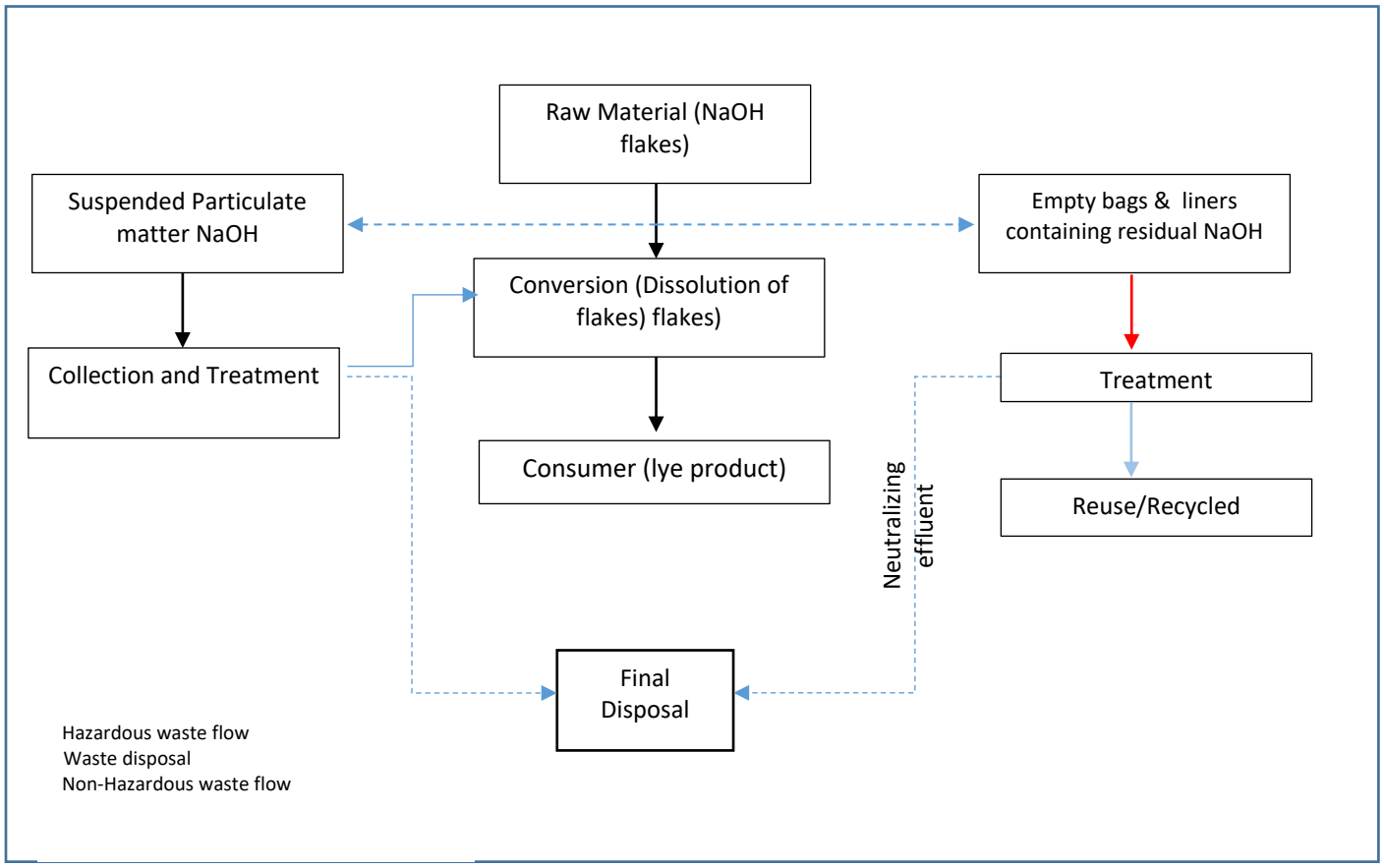


Fig 6-2

6.5 Air Quality Act (NEM:AQA)

The National Environmental Management: Air Quality Act 39 of 2004 (NEM:AQA), aims at identifying and providing guidelines to activities which result in atmospheric emissions which have or may have a significant detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage.

All activities which are listed under Section 21 (GN 893, as amended by GN 551 of 12 June 2015) of NEM:AQA, are required to apply for an Atmospheric Emissions Licence (AEL), as well as comply with the specified Minimum Emission Standards (MES) noted in the relevant category. National Ambient Air Quality Standards were also published in terms of NEM:AQA in GN 1210 on 24 December 2009 and in GN 486 on 29 June 2012 (for particulate matter with an aerodynamic diameter less than 2.5 micron metres PM2.5).

6.5.1. 2013 NEM: AQA Regulations. The following activities are being applied for:

Relevance to this Study:

The Listed Activities stipulated in GN R893 under NEM:AQA, for the development of facilities and infrastructure for the proposed AC plant may need to comply with minimum emissions standards (MES). It is noted in the relevant category Subcategory 7.7 as (indicated in the table 6-4-5) for the general production of Caustic Soda regulations as per GN 893, **special conditions** need to be put in place. The air quality specialist will conduct an Air dispersion modelling thorough investigation and make recommendations during the EIA.

The following description in design indicate that: -

- **Vent-gas** from the scrubber unit is discharged to atmosphere. This is clean air and water vapor. - From the air receiver, the air moves through a desiccant dryer and dust filters, ensuring clean, dry air is supplied to the plant. This air moves through the instrument air supply header
- Scrubber unit –
- Air and water vapor – clean air

6.5.2. NEM: AQA associated Activities

- Vent-gas from the caustic dissolution tanks is directed to atmosphere. This is clean air and water vapour.
- Vent-gas from the scrubber unit is discharged to atmosphere. This is clean air and water vapour.

6.5.3. NEM: AQA triggered Activities

According to GN 893 of November 2013, List of activities which result in atmospheric emissions which have or may have significant detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage (Government Gazette No. 37054) as amended lists the Sub-categories below as follows:

Table 6-4

Number and date of the relevant notice	Activity No(s) in terms of the relevant notice	Description of each listed activity
GN. R. 893 of the NEM: AQA 2013 Regulations	Category 7 **Sub-Category 7.7**	**Category 7: Inorganic Chemicals** **Sub-Category 7.7: Production of Caustic Soda.**

Table 6.5

Applicable Listed Activities	**Proposed Plant**
Subcategory 7.1 Production and or Use in Manufacturing of Chlorine Gas	
• All installations producing or using more than 100 tons per annum.	No trigger
Subcategory 7.2 Production of Acids	
• The production, bulk handling and or use in manufacturing of hydrochloric and sulphuric acid in concentrations exceeding 10%. • Secondary production of hydrochloric acid through regeneration. • All installations producing or using more than 100 tons per annum.	No trigger
Subcategory 7.7 Production of Caustic Soda	
All installations producing more than 10 tonnes per month	**Triggers:** • The production of 5000 Liquid Metric Tonnes (LMT) caustic soda lye per month (tons per month) • The Design production capacity for Caustic soda is 49% v/v concentrated products

Air dispersion modelling provides a cost-effective means for assessing the impact of air emission sources, the major focus of which is to determine compliance with the relevant ambient air quality standards. Regulations regarding air dispersion modelling were promulgated in Government Gazette No. 37804 vol. 589; 11 July 2014, (Government Gazette, 2014) and recommend a suite of dispersion models to be applied for regulatory practices as well as guidance on modelling input requirements, protocols and procedures to be followed. The Regulations regarding Air Dispersion Modelling are applicable –

a) In the development of an air quality management plan, as contemplated in Chapter 3 of the NEM: AQA;
b) In the development of a priority area air quality management plan, as contemplated in Section 19 of the NEM: AQA;
c) In the development of an atmospheric impact report, as contemplated in Section 30 of the NEM: AQA; and,
d) In the development of a specialist air quality impact assessment study, as contemplated in Chapter 5 of the NEM: AQA.

The Regulation has been applied to the development of this report. The first step in the dispersion modelling exercise requires a clear objective of the modelling exercise and thereby gives clear direction to the choice of the dispersion model most suited for the purpose. Chapter 2 of the Regulations present the typical levels of assessments, technical summaries of the prescribed models (SCREEN3, AERSCREEN, AERMOD, SCIPUFF, and CALPUFF) and good practice steps to be taken for modelling applications. The proposed operation falls under a Level 2 assessment, which is described as follows:

- The distribution of pollutant concentrations and deposition are required in time and space.
- Pollutant dispersion can be reasonably treated by a straight-line, steady-state, Gaussian plume model with first order chemical transformation. The model specifically to be used in the air quality impact assessment is AERMOD.
- Emissions are from sources where the greatest impacts are in the order of a few kilometres (less than 50 km) downwind.

Dispersion modelling provides a versatile means of assessing various emission options for the management of emissions from existing or proposed installations. Chapter 3 of the Regulation prescribe the source data input to be used in the model. Dispersion models are particularly useful under circumstances where the maximum ambient concentration approaches the ambient air quality limit value and provide a means for establishing the preferred combination of mitigation measures that may be required.

Chapter 4 of the Regulation prescribe meteorological data input from on-site observations to simulated meteorological data. The chapter also gives information on how missing data and calm conditions are to be treated in modelling applications. Meteorology is fundamental for the dispersion of pollutants because it is the primary factor determining the diluting effect of the atmosphere.

Topography is also an important geophysical parameter. The presence of terrain can lead to significantly higher ambient concentrations than would occur in the absence of the terrain feature. In particular, where there is a significant relative difference in elevation between the source and off-site receptors large ground level concentrations can result.

The modelling domain would normally be decided on the expected zone of influence; the extent being defined by simulated ground level concentrations from initial model runs. The modelling domain must include all areas where the ground level concentration is significant when compared to the air quality limit value (or other guideline). Air dispersion models require a receptor grid at which ground-level concentrations can be calculated. The receptor grid size should include the entire modelling domain to ensure that the maximum ground-level concentration is captured and the grid resolution (distance between grid points) sufficiently small to ensure that areas of maximum impact adequately covered.

Chapter 5 provides general guidance on geophysical data, model domain and coordinates system requirements, whereas Chapter 6 elaborates more on these parameters as well as the inclusion of background air pollutant concentration data. Chapter 6 also provides guidance on the treatment of NO2 formation from NOx emissions, chemical transformation of SO2 into sulphates and deposition processes. Chapter 7 of the Regulation outlines how the plan of study and modelling assessment reports are to be presented to authorities.

6.5.4. Air Quality Management Plans – Gauteng Province, Ekurhuleni Metropolitan Municipality, Highveld Priority Area

With the shift of the new Air Quality Act from source control to the impacts on the receiving environment, the responsibility to achieve and manage sustainable development has reached a new dimension. The Air Quality Act has placed the responsibility of air quality management on the shoulders of provincial and local authorities that will be tasked with baseline characterization, management and operation of ambient monitoring networks, licensing of listed activities, and emissions reduction strategies. The main objective of the act is to ensure the protection of the environment and human health through reasonable measures of air pollution control within the sustainable (economic, social and ecological) development framework.

6.5.5. Gauteng Air Quality Management Plan

An Air Quality Management Plan for Gauteng Province was developed in January 2009 by Airshed Planning Professionals (Pty) Ltd an Ecoserv (Pty) Ltd.

The Gauteng Department of Agriculture, Conservation and Environment (GDACE) had embarked on developing the first provincial Air Quality Management Plan (AQMP) in South Africa. The project was aimed at developing and implementing an air quality management plan for the Gauteng Province in order to fulfil their obligations as set out in the National Environmental Management: Air Quality Act (Act No 39 of 2004)(AQA). The ongoing implementation of various air quality management tools, and changes in the physical environment, the Gauteng Department of Agriculture and Rural Development (GDARD) recognized the need to review the 2009 AQMP in 2017.

The overall objective of the project for the review of the GDARD, AQMP was to establish the current status of air quality in the province and to develop a revised AQMP with objectives to ensure prevention of deterioration and improvement in air quality in Gauteng.

- To fulfill Government's constitutional mandate
- To ensure an environment that is not harmful to the health and wellbeing of all South Africans.

The project will consult the 2009 Gauteng AQMP was awarded to uMoya-NILU Consulting (Pty) Ltd. The 2017 Air Quality Baseline Report by uMoya-NILU Consulting reported with regards to current status of ambient air quality in the province the following per criteria pollutants:

6.5.6. The Wind direction

The wind roses below, show the frequency of occurrence of winds by direction and strength. The bars correspond to the 36 compass points (north, north-north-east, north-east, and etc.). The bar at the top of each wind rose diagram represents winds blowing from the north (i.e. northerly winds), and so on. The length of the bar represents the frequency of occurrence of winds from that direction, and the colour and width of the bar sections correspond to wind speed categories, as per the legend. Thus, it is possible to visualise how often winds of a certain direction and strength occur over any period of time. The wind roses plotted from data extracted from WRF dataset are presented in Figure 1.3, Figure and Figure . The data for the wind roses has been extracted for the project site.

Period wind rose drawn from WRF data for Chloorkop area is shown in Figure 1.3. The colours used in the wind roses below, reflect the different categories of wind speeds; the darkest purple shade area, for

example, representing wind speeds over 11.1 m/s. The frequency with which calms occurred, i.e. periods during which the wind speed was below 0.5 m/s, is also indicated.

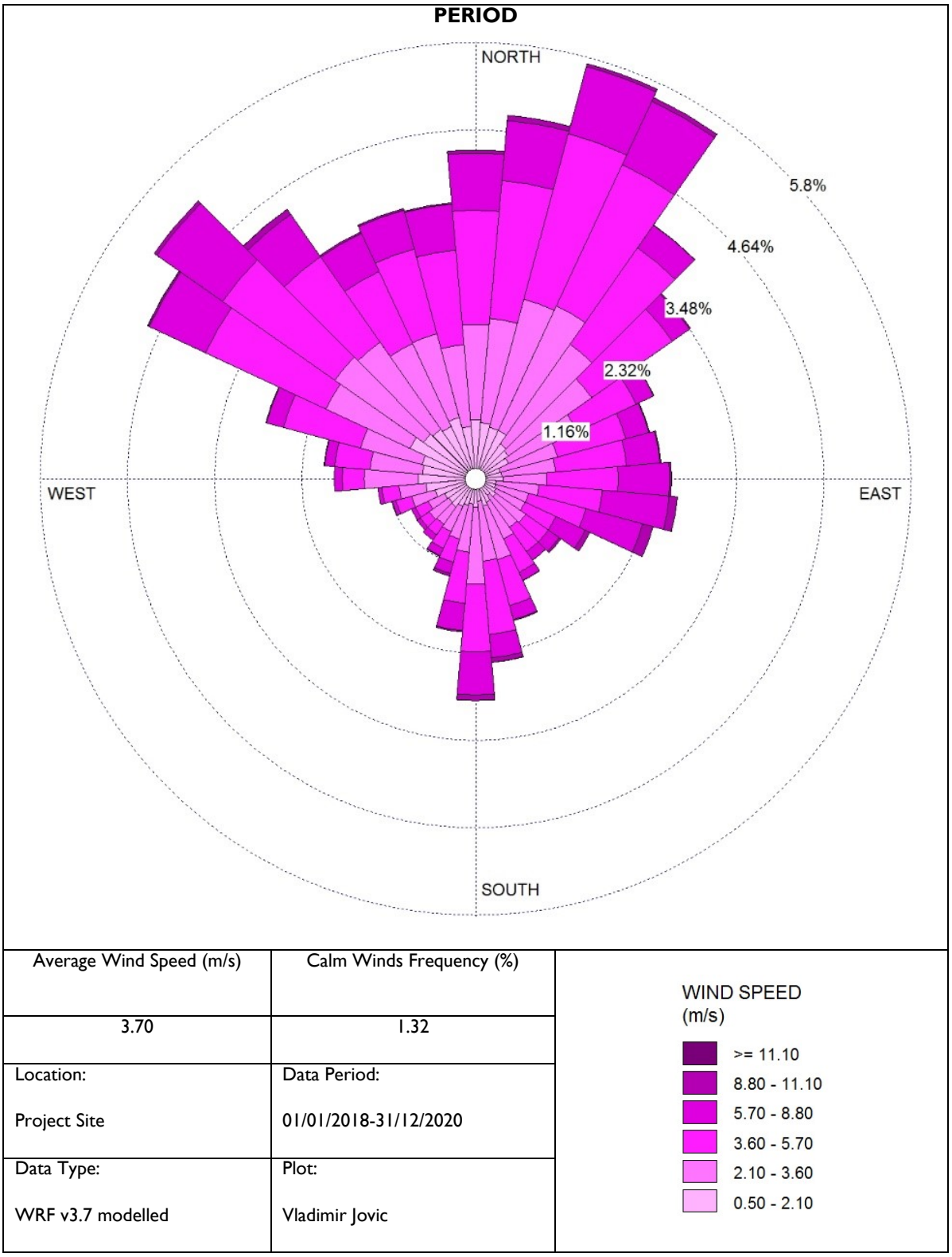
The wind field for the entire period was dominated by winds from the north-northeast, northwest and southern quadrants. The average wind speed for the WRF data set at Chloorkop was 3.70 m/s, with calms (below 0.5 m/s) over the entire period occurring 1.32% of the time. The highest wind speed for the three-year period dataset was registered as 14.3 m/s.

Figure 4 presents the seasonal wind roses for the modelled dataset for Chloorkop area. Spring (September – November) and summer (December – February) experienced relatively similar wind patterns, although spring season is known to experience stronger winds due to changing weather patterns. Winds predominantly originated from the north-easterly and north north-easterly directions, as well as northwest directions. Wind speeds in spring were the fastest, often exceeding 5.7 m/s and 8.8 m/s and with average wind speed over 4 m/s (4.25 m/s), while summer experienced fewer winds exceeding 5.7 m/s (25.5% vs 14.4%). A shift in winds is evident with the onset of autumn, with an increase in winds originating from the south, with noticeable increase in calms and average wind speed of only 3.15 m/s. Wind speeds in autumn were slower than spring, summer and winter, with calms increasing to 2.04%. Winter period saw an increase in wind speed and much stronger wind from the southern and south-western quadrant, but strong winds were still coming from the northwest and north northeast direction.

Figure 5 presents the diurnal wind rose plots for the Chloorkop area. Night time (00:00 – 06:00) exhibit similar pattern with evening period (18.00-24.00), with vast majority of the winds coming from with strongest winds dominating form the northeast quadrant, followed by eastern and to the lesser extent southern winds, and almost no winds from western quadrants. During morning (06:00 – 12:00) there is a slight shift in wind direction, with stronger southerly component and moderate winds from northwest direction. Slowest wind speeds occur in the evening and at night time, with an increase in speeds after 06:00, and wind speeds reaching the highest values during morning, with speeds often exceeding 6 m/s. Wind patterns in the afternoon (12:00 – 18:00) remain similar to mornings, although the northerly component disappears and wind is almost exclusively blowing from the northwest direction. Evening patterns experience the shift to the northeast direction and stronger southerly component, with wind generally slowing down when compared to the afternoon and more calms recorded.

Based on the prevailing wind fields for the period January 2018 to December 2020, emissions from the proposed operations at African Chemicals Caustic Soda Make-Up Plant will likely be transported towards the south-west, south, east and, to the lesser extent, north. Moderate to fast wind speeds observed during

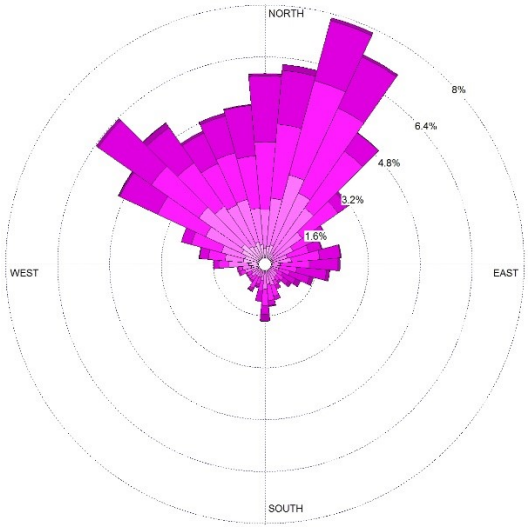
all time periods may result in effective dispersion and dilution of emissions from AC Caustic Soda Make-Up Plant.



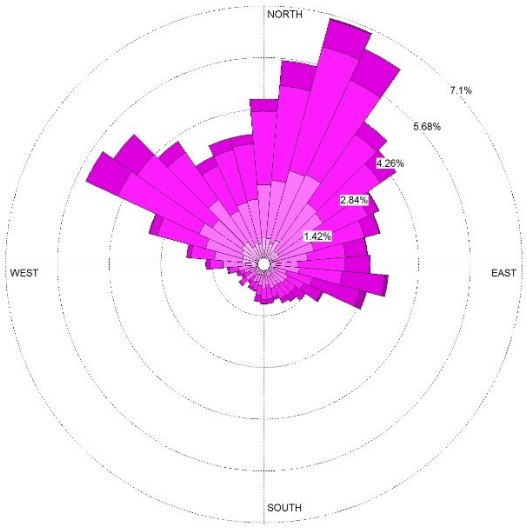
Average Wind Speed (m/s)	Calm Winds Frequency (%)
3.70	1.32
Location: Project Site	Data Period: 01/01/2018-31/12/2020
Data Type: WRF v3.7 modelled	Plot: Vladimir Jovic

Figure 1.3: **Period wind rose – extrapolated WRF weather data at the proposed development site (2018-2020).**

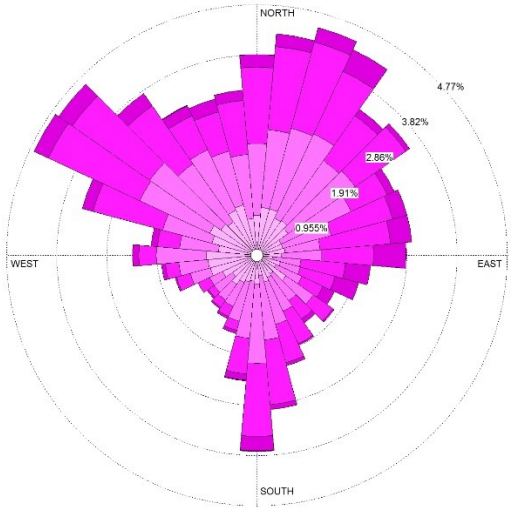
SPRING



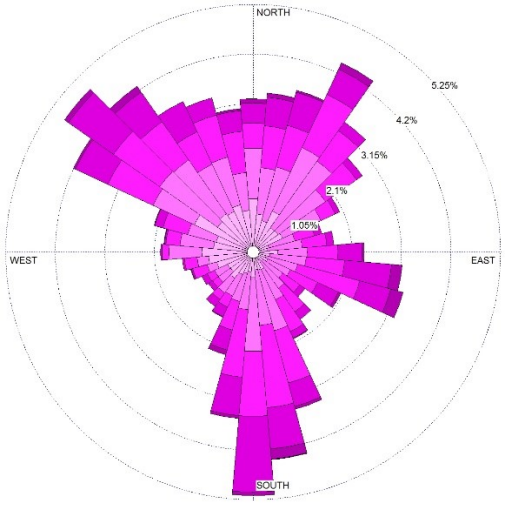
SUMMER



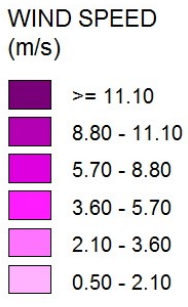
AUTUMN



WINTER

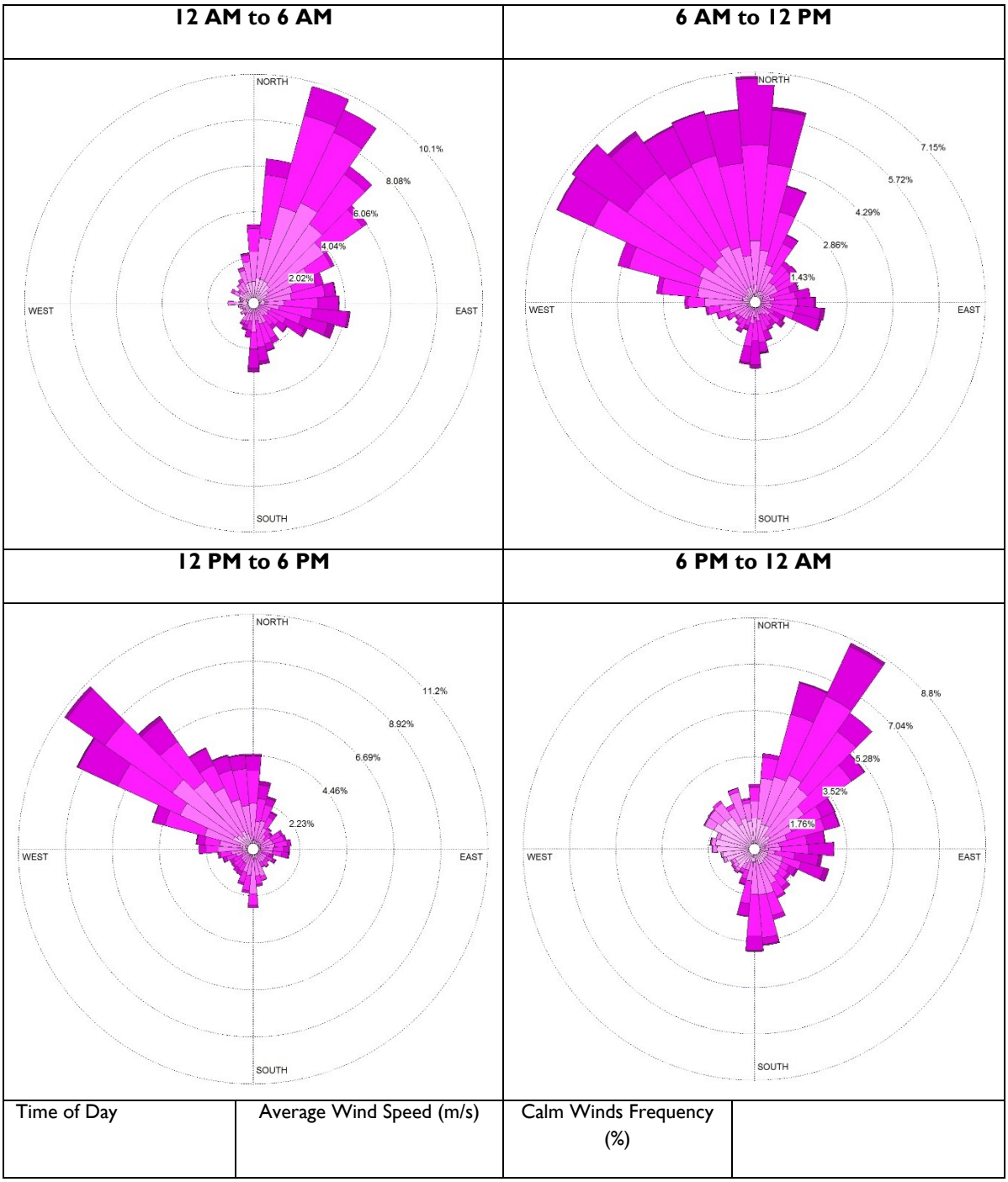


Season	Average Wind Speed (m/s)	Calm Winds Frequency (%)
Spring	4.25	0.78
Summer	3.80	0.78
Autumn	3.15	2.04
Winter	3.59	1.68



Location:	Data Period:	Data Type:	Plot:
Project Site	01/01/2018-31/12/2020	WRF v3.7 modelled	Vladimir Jovic

Figure 6.4: Seasonal variation of winds in spring season (September – November) (top left), summer season (December - February) (top right), autumn season (March – May) (bottom left) and winter season (June – August) (bottom right) (extrapolated WRF modelled data 01 January 2018 – 31 December 2020) close to the site.



Time of Day	Average Wind Speed (m/s)	Calm Winds Frequency (%)	

12 AM to 6 AM	3.56	1.44	WIND SPEED (m/s) >= 11.10 8.80 - 11.10 5.70 - 8.80 3.60 - 5.70 2.10 - 3.60 0.50 - 2.10
6 AM to 12 PM	4.30	0.40	
12 PM to 6 PM	3.71	0.55	
6 PM to 12 AM	3.21	2.90	
Location: Project Site	Data Period: 01/01/2018-31/12/2020	Data Type: WRF v3.7 modelled	Plot: Vladimir Jovic

Figure 6.5 : Diurnal variation of winds between Night time 00:00 – 06:00 (top left), Morning 06:00 – 12:00 (top right), Afternoon 12:00 – 18:00 (bottom left) and Evening 18:00 – 24:00 (bottom right) (extrapolated WRF weather data 01 January 2018 – 31 December 2020) close to the site.

The wind class frequency distribution, presented in

Figure , shows that 83.9% of wind speeds are below 5.7 m/s (low to moderate) with 16.1% of winds above 5.7 m/s (high speeds).

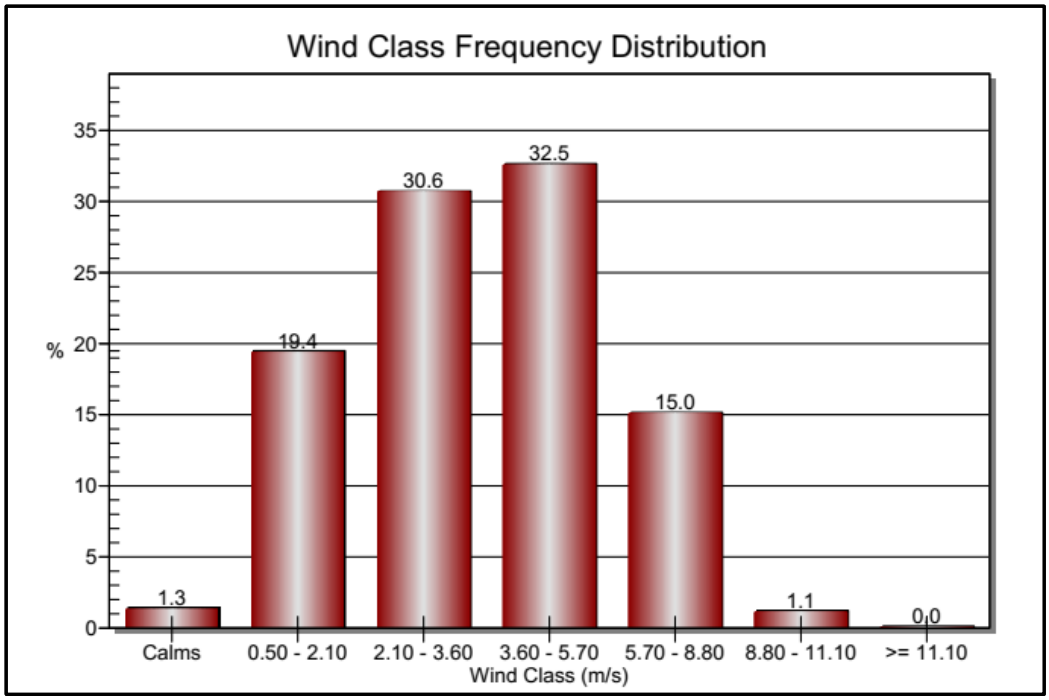


Figure 6.6: Wind class frequency distribution derived from the WRF modelled data (2018-2020).

6.5.7. Temperature

Air temperature is important, both for determining the effect of plume buoyancy (the larger the temperature difference between the plume and the ambient air, the higher a pollution plume is able to rise) and determining the development of the mixing and inversion layers.

Air temperature provides an indication of the extent of insolation, and therefore of the rate of development and dissipation of mixing dispersion layers.

Minimum, maximum and mean temperatures from the WRF modelled data for the study site are shown in Table.8.

Average, maximum and minimum monthly temperatures were 15.6°C, 16.2°C and 14.9°C, respectively. The month of June experienced the lowest temperature of -4.3°C whereas the maximum temperature of 35.1°C occurred in December. During the day, temperatures increase to reach maximum at around 14:00 in the afternoon. Ambient air temperature decreases to reach a minimum at around 05:00 i.e. just before sunrise.

6.5.8. Precipitation

Rainfall is seasonal with the majority of the rainfall falling between October and March (Fig 6.7). Rainfall occurs mostly in the form of thundershowers that occur over a short period, but are high in intensity.

Precipitation is important to air pollution studies since it represents an effective removal mechanism for atmospheric pollutants and inhibits dust generation potentials. According to the rainfall data extracted from the WRF modelled data between 2018 and 2020, the mean annual precipitation is 686.1 mm. Precipitation occurs as showers and thunderstorms and falls mainly from October to March (about 113 days of measurable rain per year) with the maximum falls occurring in November, December and January. Rainstorms are often violent (up to 68 mm or rainfall can occur in one day) with severe lightning and strong winds, sometimes accompanied by hail. The winter months are dry with the combined rainfall in June, July and August making up only 0.73 % of the annual total according to the modelled data obtained for the Chloorkop site. The annual rainfall by month from 2018 to 2020 is given in Figure 6.7.

In terms of Köppen Climate Classification, the area belongs to BSk climate group (Cold semi-arid climates).

BSk is the climate of a region that receives precipitation below potential evapotranspiration, but not as low as a desert climate. There are different kinds of semi-arid climates, depending on variables such as temperature, and they give rise to different biomes.

Cold semi-arid climates usually feature warm to hot dry summers, though their summers are typically not quite as hot as those of hot semi-arid climates. Unlike hot semi-arid climates, areas with cold semi-arid climates tend to have cold winters.

Areas featuring cold semi-arid climates tend to have higher elevations than areas with hot semi-arid climates, and tend to feature major temperature swings between day and night, sometimes by as much as 20°C or more in that time frame. Cold semi-arid climates at higher latitudes tend to have dry winters and wetter summers.

Meteoblue has been archiving weather model data since 2007 and in 2014 started to calculate weather models with historical data from 1985 onwards and generated a continuous 30-year global history with hourly weather data. The climate diagrams are the first simulated climate data-set made public on the Internet. The Meteoblue weather history covers any place on Earth. They give good indications of typical climate patterns and expected conditions (temperature, precipitation, sunshine and wind). The simulated weather data have a spatial resolution of approximately 30 km.

Meteoblue climate diagram was extracted for a point near the proposed site (26.04°S, 28.18°E) and is presented.

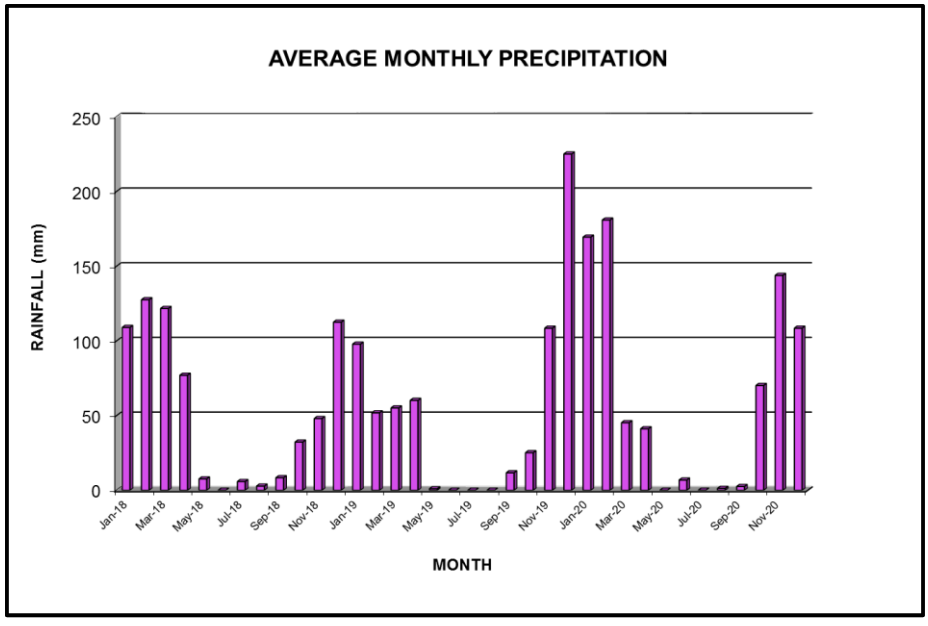


Figure 6.7: Average monthly precipitation for Chloorkop WRF modelled data (2018 - 2020).

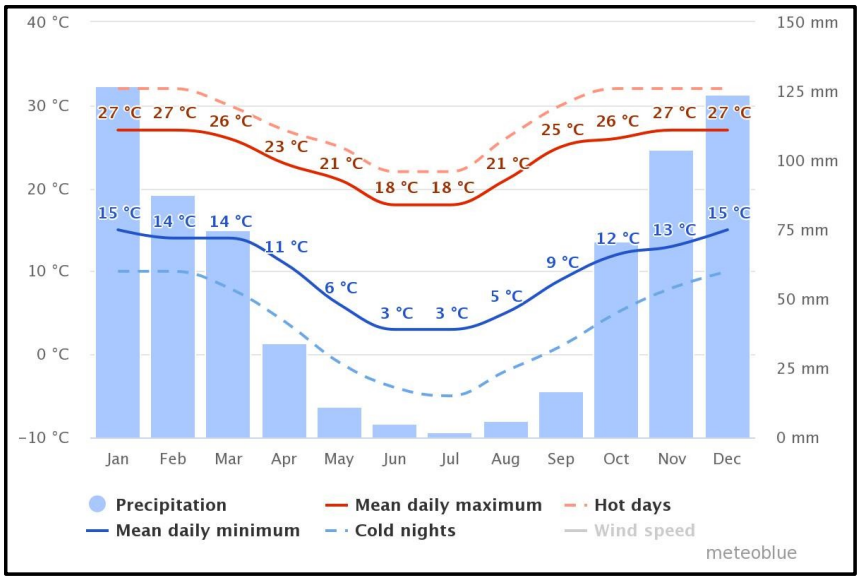


Figure 6.8: Average temperature, precipitation data for Chloorkop area (26.04°S 28.18°E) (www.meteoblue.com) [Date accessed: 19 May 2021].

Table 6.9: Monthly temperature summary – WRF modelled data (2018-2020).

	Monthly Minimum, Maximum and Average Temperatures (°C)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maximum	20.7	20.3	19.3	15.8	12.0	8.9	8.8	13.0	15.9	18.6	20.6	21.0
Minimum	20.0	19.3	18.2	15.2	11.3	7.4	7.9	10.4	14.6	16.5	18.7	19.1
Average	20.3	19.7	18.6	15.6	11.7	8.3	8.2	11.9	15.2	17.9	19.8	20.3

6.5.9. Evaporation

The rate of evaporation will depend upon a number of factors. Evaporation rates increase when temperatures are higher. An increase of 10°C will approximately double the rate of evaporation. The humidity of the surrounding air will also influence evaporation. Drier air has a greater "thirst" for water vapour than humid, moist air. It follows therefore, that the presence of wind will also increase evaporation. On still days, water evaporating to the air remains close to its source, increasing the local humidity. As the moisture content of the air increases, evaporation will diminish. If, however, a steady flow of air exists to remove the newly formed vapour, the air surrounding the water source will remain dry, "thirsty" for future water.

As shown in Figures above the annual maximum, minimum and mean monthly evaporation rates for the historical OR Tambo International Airport S-Pan Station (Station Code: 0476399 0) (approximately 8.5 km southeast of the project area) for the period 1957 - 1987 are 242 mm, 119 mm and 180 mm, respectively. The highest monthly maximum evaporation (345 mm) occurred in October. The rate decreased to the monthly minimum in 85 mm in June.

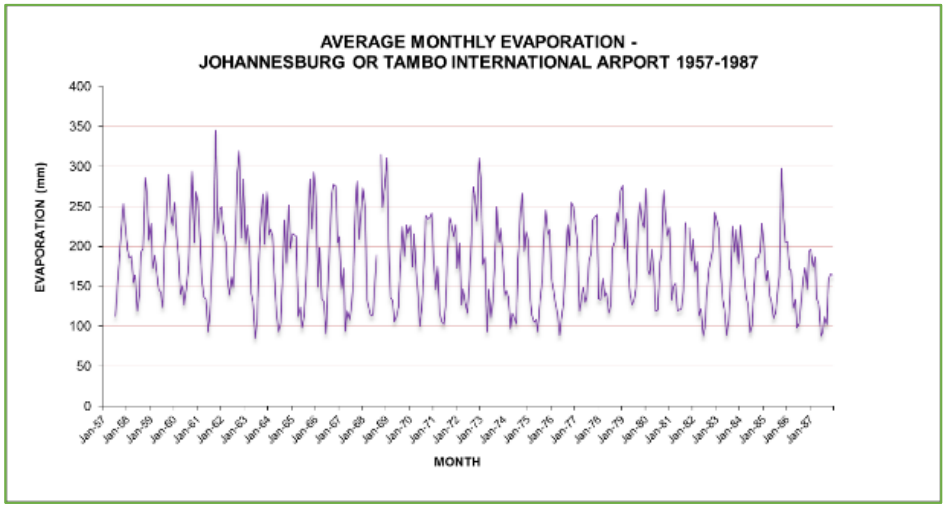


Figure 6.10: Average monthly evaporation for OR Tambo International Airport S-Pan Evaporation Station (1957 – 1987) (Source: South African Weather Service).

Table 1: Maximum, minimum and mean monthly evaporation rates for the OR Tambo International Airport (Symon's Pan) S-Pan evaporation station for 1957-1987 period (South African Weather Service).

Evaporation (mm)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Monthly Max.	311	249	235	196	164	163	158	207	293	345	276	311	242
Monthly Min.	135	133	114	93	88	85	93	112	103	159	147	164	119
Monthly Mean	222	182	172	135	129	109	123	170	219	246	223	231	180

6.5.10. Boundary Layer Properties and Atmospheric Stability

The region of the atmosphere governing transport and dispersion of the majority of the pollutants is the planetary boundary layer. This layer is defined as the layer where the wind structure is influenced by the surface of the Earth.

The height of the planetary boundary layer varies with the atmospheric stability and this is important for the concentrations of pollutants in the air because the majority of the pollutant mass typically is confined within this layer. During night-time when conditions in most cases are stable, the planetary boundary layer is shallow, down to 20-50 metres and the surface concentration of pollutants can therefore be quite high, especially close to emission sources that are active during the night. Under unstable conditions the planetary boundary layer can be as high as 2 kilometres and pollutants are in this case distributed in the air column mainly by convective turbulence. In the vicinity of the top of the boundary layer, the horizontal winds are typically stronger and the pollutants that end up at these higher levels may be transported far away from the emission sources. In neutral conditions emitted pollutants are quickly mixed in the air by mechanical turbulence and the surface concentration is not particularly high. During neutral conditions the strong horizontal wind speeds can transport pollutants across large distances.

The atmospheric conditions may be divided into three broad classes in terms of stability: neutral, stable and unstable conditions. These major three categories are characterised by the following:

- Neutral conditions where the temperature is homogeneous throughout the boundary layer. This situation typically occurs in the transition from day to night and is characterised by strong winds and clouds and large amounts of mechanical turbulence.
- Stable conditions where the temperature is lowest close to the surface and increases towards the top of the boundary layer. This situation typically occurs during night-time or in

winter situations and is characterised by little turbulence and a strong stratification of the planetary boundary layer which is quite shallow. This class can be further divided into stable and very stable classes.

- Unstable conditions where the temperature of the air closest to the surface is higher than the temperature of the air above it. This situation typically occurs during daytime at summer when the sun is shining, and it is characterised by large amounts of convective turbulence usually resulting in the formation of cumulus clouds during the day. This class can be further divided into very unstable, moderately unstable and unstable classes.

The atmospheric boundary layer is normally unstable during the day as a result of the turbulence due to the sun's heating effect on the earth's surface. The thickness of this mixing layer depends mainly on the extent of solar radiation, growing gradually from sunrise to reach a maximum at about 5-6 hours after sunrise. The situation is more pronounced during the winter months due to strong night time inversions and a slower developing mixing layer. During the night a stable layer, with limited vertical mixing, exists. During windy and/or cloudy conditions, the atmosphere is normally neutral.

For elevated releases, the highest ground level concentrations would occur during unstable, day-time conditions. The wind speed resulting in the highest ground level concentration depends on the buoyancy. If the plume is considerably buoyant (high exit gas velocity and temperature) together with a low wind, the plume will reach the ground relatively far downwind. With stronger wind speed, on the other hand, the plume may reach the ground closer, but due to the increased ventilation, it will be more diluted. A wind speed between these extremes would therefore be responsible for the highest ground level concentrations. The highest concentrations for low level releases would occur during weak wind speeds and stable atmospheric conditions. Air pollution episodes frequently occur just prior to the passage of a frontal system that is characterised by calm wind and stable conditions.

6.5.11. Particulates - Long-term exposure

Long-term exposure to low concentrations (~10 µg/m^3) of particulates is associated with mortality and other chronic effects such as increased rates of bronchitis and reduced lung function (WHO, 2000). The short term and long-term effects associated with particulate matter are depicted below.

Studies have indicated an association between lung function and chronic respiratory disease and airborne particles. Older studies by Chestnut et al (1991) found that Forced Vital Capacity (FVC) decreases with increasing annual average particulate levels with an apparent threshold at 60 µg/m3.

Using chronic respiratory disease data, Schwartz (1993) determined that the risk of chronic bronchitis increased with increasing particulate concentrations, with no apparent threshold.

Few studies have been undertaken documenting the morbidity effects of long-term exposure to particulates. Recently, the Harvard Six Cities Study showed increased respiratory illness rates among children exposed to increasing particulate, sulphate and hydrogen ion concentrations. Relative risk estimates suggest an 11% increase in cough and bronchitis rates for each 10 µg/m3 increase in annual average particulate concentrations.

6.5.12. Sulphur Dioxide

SO_2 originates from the combustion of sulphur-containing fuels and is a major air pollutant in many parts of the world. Health effects associated with exposure to SO_2 are also associated with the respiratory system. Being soluble, SO_2 is readily absorbed in the mucous membranes of the nose and upper respiratory tract (Maroni et al., 1995).

Most information on the acute (short-term) effects of SO_2 is derived from short-term exposure in controlled chamber experiments. These experiments have demonstrated a wide range of sensitivity amongst individuals. Acute exposure of SO_2 concentrations can lead to severe bronchconstriction in some individuals, while others remain completely unaffected. Response to SO_2 inhalation is rapid with the maximum effect experienced within a few minutes. Continued exposure does not increase the response. Effects of SO_2 exposure are short-lived with lung function returning to normal within a few minutes to hours (WHO, 2000). Exposure to SO_2 over a 24-hour period has shown that when SO_2 concentrations exceed 250 µg/m^3 in the presence of PM (such as sulphates), an exacerbation of symptoms is observed in selected sensitive patients. More recent studies of health impacts in ambient air polluted by industrial and vehicular activities have demonstrated at low levels effects on mortality (total, cardiovascular and respiratory) and increases in hospital admissions. Long-term exposure to SO_2 has been found to be associated with an exacerbation of respiratory symptoms and a small reduction in lung function in children in some cases. In adults, respiratory symptoms such as wheezing and coughing are increased (WHO, 2000).

6.5.13. Hydrochloric acid

Hydrogen chloride (HCl) is an acidic gas which is primarily released to air from combustion of fuels which contain trace amounts of chlorine. Hydrochloric acid is an aqueous solution of hydrogen chloride.

Hydrochloric acid irritates the membranes of the eye and upper respiratory tract, and prolonged exposure to low concentrations can cause erosion of the teeth. Severe exposures can result in pulmonary edema and laryngeal spasm, both of which can be fatal. There are no known chronic or acute systemic effects of hydrochloric acid. Hydrochloric acid is also a phytotoxicant, and its emissions have been responsible for plant damage in several instances. Recent data indicate that it is a stronger phytotoxicant than reported in the earlier literature.

The acid is strongly corrosive to most metals. Hydrogen chloride gas emissions are readily converted to hydrochloric acid by the moisture in the air. Hydrogen chloride is a by-product of many organic chlorinating reactions; in some instances the hydrogen chloride is collected for use, but in small operations it may not be economically feasible to recover the gas. Hydrogen chloride emissions result from the burning of coal, chlorinated plastics, and paper. The major uses of hydrogen chloride or hydrochloric acid are in manufacturing chemicals, producing metals, and acidizing oil wells. Effective control of emissions can be accomplished by the use of water scrubbing equipment.

6.5.14. Chlorine

Chlorine is a highly reactive, greenish-yellow gas. It has a suffocating, irritating, pungent bleach-like odour that is detectable at low concentrations (above 0.3 – 0.5 ppm). Cl_2 is heavier than air which causes it to remain in low-lying areas or areas near the ground with little air movement.

Chlorine gas is slightly soluble in water, hence, it reacts to form hypochlorous acid (HClO) and hydrochloric acid (HCl). It is not flammable, but has the ability to react explosively when combined with other substances such as hydrogen, ammonia, fuel gas, acetylene, ether, etc. Cl_2 gas is oxidizing in nature and has bleaching properties. It is toxic to human and plant life and can corrode metals and other materials.

Elemental chlorine is rarely present in nature due to its high reactivity. It can be formed from atmospheric reactions of chlorine-containing compounds with NO_2 and through oxidation of chlorides in presence of strong oxidants in the atmosphere such as ozone.

Once released, it rapidly combines with other chemicals/compounds in the atmosphere to form secondary compounds instead of remaining in a pure elemental state. Chlorine dissolves in the water and reacts to form chloride salts and chlorinated organic chemicals such as sodium chloride (NaCl, common salt), sodium hypochlorite (bleach), chloroform, etc.

Chlorine is majorly toxic due to its oxidizing and corrosive properties. When in contact with Cl_2 gas, the hydrogen in moist tissue splits from water. Thus, producing hydrogen chloride (HCl) which damages tissue. It also forms hypochlorous acid (HOCl) that penetrates cells in the body and destroys the cell structures by reacting with the cytoplasmic proteins.

Symptoms of chlorine gas exposure are usually varied, depending on the type of exposure. Low-level exposure to chlorine causes eye, skin, and respiratory tract irritation, sore throat, coughing, etc. Higher levels of exposure to chlorine cause burning of eyes and skin, chest tightness, narrowing of bronchi, rapid breathing, wheezing, blue colouring of the skin, accumulation of fluid in lungs, etc. Very high exposure may cause severe burns to eye and skin, lung collapse, non-cardiogenic pulmonary edema, etc. and may lead to death.

6.5.15. Hydrogen

In normal conditions hydrogen is a colourless, odourless and insipid gas, formed by diatomic molecules, H_2. Hydrogen is the most flammable of all the known substances. H_2 is slightly more soluble in organic solvents than in water.

At normal temperature hydrogen is a not very reactive substance, unless it has been activated somehow; for instance, by an appropriate catalyser. At high temperatures it is highly reactive.

Hydrogen can be absorbed into the body by inhalation. High concentrations of this gas can cause an oxygen-deficient environment. Individuals breathing such an atmosphere may experience symptoms which include headaches, ringing in ears, dizziness, drowsiness, unconsciousness, nausea, vomiting and depression of all the senses. The skin of a victim may have a blue colour. Under some circumstances, death may occur. Hydrogen is not expected to cause mutagenicity, embryotoxicity, teratogenicity or reproductive toxicity. Pre-existing respiratory conditions may be aggravated by overexposure to hydrogen. Inhalation risk: On loss of containment, a harmful concentration of this gas in the air will be reached very quickly.

6.5.16. Sodium hydroxide (NaOH)

At room temperature, anhydrous sodium hydroxide is a white crystalline, odourless solid that absorbs moisture from the air. It is produced as flakes, pellets, sticks, and cakes. When dissolved in water or neutralised with acid, it liberates substantial heat, which may be sufficient to ignite combustible materials. Sodium hydroxide is caustic and is one of several alkaline compounds referred to as "lye." It is generally used commercially as either the solid, or as a 50% aqueous solution and should be stored in a cool, dry, well ventilated location, separate from organic and oxidising materials, acids, and metal powders.

It is used in the production of other chemicals, in the pulp and paper industry and various household products including drain cleaners. It does not persist in the environment. Sodium hydroxide causes irritation of eyes, nose and throat, cough, chest tightness, headache, fever and confusion. Individuals with breathing problems such as asthma may be more susceptible to the effects of inhaled sodium hydroxide.

Human poisoning cases indicate that a dose of 10 grams orally is fatal. Sodium hydroxide is toxic by oral ingestion. Sodium hydroxide is corrosive to all tissues. Concentrated vapors lead to serious damage to the eyes and respiratory system. Oral ingestion of sodium hydroxide, which occurs frequently in children, causes severe tissue necrosis, with stricture formation of the oesophagus, often resulting in death. Contact with the skin may result in contact dermatitis, hair loss, as well as necrosis due to severe irritation. Increased incidence of oesophageal carcinoma after severe intoxication with sodium hydroxide has been reported in man. In animal studies, long-term dermal contact with substances leading to pH changes in the skin causes the development of tumours, as a result of severe tissue irritation and reparative cell growth. Mutagenic for mammalian somatic cells. May cause damage to the following organs: mucous membranes, upper respiratory tract, skin and eyes. Tumours are not to be expected if the effects of irritation are prevented. To date, there are no relevant studies of the prenatal toxic effects of sodium hydroxide.

6.5.17. Sodium carbonate (Na2CO3)

Sodium carbonate, Na_2CO_3, (also known as washing soda, soda ash and soda crystals) is the inorganic compound with the formula Na_2CO_3 and its various hydrates. All forms are white, odourless, water-soluble salts that yield moderately alkaline solutions in water. Historically, it was extracted from the ashes of plants growing in sodium-rich soils. Because the ashes of these sodium-rich plants were

noticeably different from ashes of wood (once used to produce potash), sodium carbonate became known as "soda ash".

It's commonly referred to as washing soda and is used in cleaning products, glass production, as a food additive, and more.

Sodium carbonate is alkali with a high pH when in concentrated solutions. When it is added to water it breaks down into carbonic acid and sodium hydroxide (lye).

It is considered a non-to-mild irritant for the skin and a mild-to-severe irritant for the eyes. Sodium carbonate is not flammable or combustible. It is also not a carcinogen. Sodium carbonate reacts with strong acids. Also, it can become a dangerous carbon monoxide gas if it comes into contact with foods that contain reducing sugars.

Breathing in sodium carbonate could irritate lungs or worsen conditions such as acute or chronic asthma or another chronic pulmonary disease. Inhalation could irritate nose, throat or respiratory tract. If sodium carbonate is inhaled, one must get plenty of fresh air.

6.6. Water Act

The National Water Act 36 of 1998 (NWA) recognises that water is a scarce resource which belongs to all people and therefore the DWS aims at implementing laws which will promote equal access to water and the use of water resources. In this regard, all activities that are listed under Section 21 of the NWA require application for a Water Use Licence (WUL) to the Department of Water and Sanitation (DWS). Activities listed under Section 21 are:

a) "Taking water from a water resource.
b) Storing water.
c) Impeding or diverting the flow of water in a watercourse.
d) Engaging in a stream flow reduction activity contemplated in Section 36.
e) Engaging in a controlled activity identified as such in Section 37(1) or declared under Section 38(1).
f) Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit.
g) Disposing of waste in a manner which may detrimentally impact on a water resource.
h) Disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process.
i) Altering the bed, banks, course or characteristics of a watercourse.
j) Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people.
k) Using water for recreational purposes."

The EIA Phase will further investigate and determine the detailed water use within the catchment area. The proposed caustic soda plant is a zero effluent plant in design. However any leaks, spillages contained in the bund will be directed to the proposed new containment infrastructure. The Water resource specialists will conduct a full study and make recommendations to the competent authority.
There will be minimal impact because all changes will be within the plant area and will only tie into existing outside Storm Water infrastructure.

6.6.1 Relevance to the Caustic Soda

According to Section 19 (1) of the NWA, "an owner of land, a person in control of land or a person who occupies or uses the land on which—

(a) Any activity or process is or was performed or undertaken; or

(b) Any other situation exists, which causes, has caused or is likely to cause pollution of a water resource, must take all reasonable measures to prevent any such pollution from occurring, continuing or recurring."

All necessary and appropriate measures must be taken to prevent the pollution of water courses and other water resources must be protected.

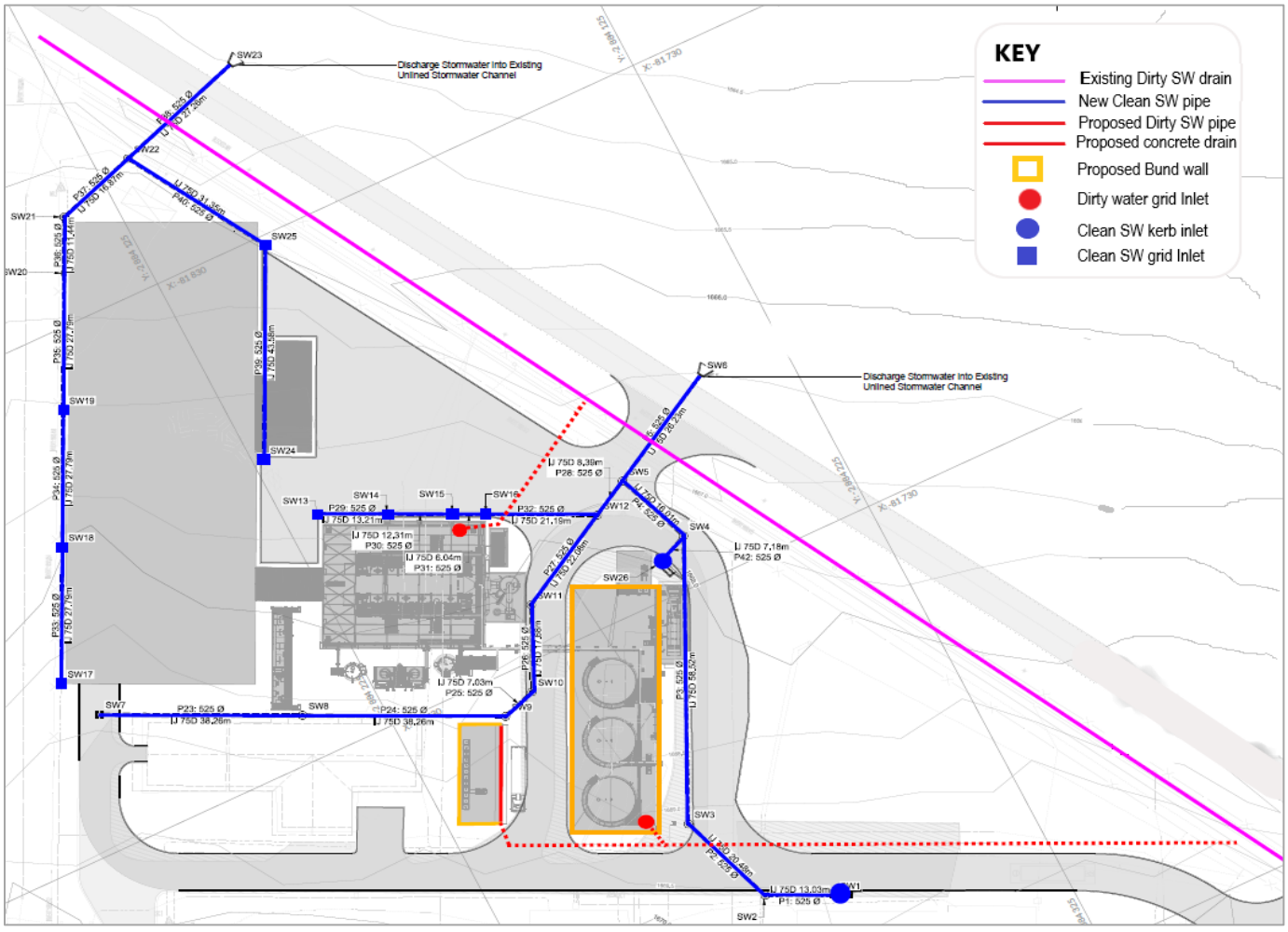


Fig 6;12 – **Storm-Water management**

The City of Ekurhuleni municipality ("the Council") requires that a professional engineer or other approved competent person designs a proposed sewer installation or a detailed design in cases where the council is of the opinion that a detail design is necessary due to the complexity of the installation. Any designer of a drainage installation shall take the necessary care in the detail design

that the sewer installation shall fully comply with the requirements as set out in National Building Regulations and Building Standards Act (Act 103 of 1977).

6.7 Environmental Management Plan (EMPr)

Chapter 5 of NEMA identifies various environmental management instruments and tools for application in South Africa, including Strategic Environmental Assessments (SEAs), Environmental Management Frameworks (EMFs), Environmental Impact Assessments (EIAs), Environmental Management Programmes (EMPrs), environmental risk assessments, environmental feasibility assessments, norms or standards, spatial development instruments, or any other environmental management instruments and tools that may be developed over time.

The construction of the proposed Caustic Make-Up plant triggers the need for full scoping and environmental impact assessment (S&EIA) processes as listed in GN 325, which will be conducted as per the requirements of the relevant acts and regulations. The final Scoping Report, Environmental Impact Assessment Report (EIR) and an **Environmental Management Programme (EMPr)** is expected to be compiled and made available to the general public for comments before they are submitted to the competent authority for consideration.

6.8 Biodiversity Act

The following main pieces of legislation relate to the management of biodiversity resources:

- National Environmental Management: Biodiversity Act 10 of 2004 (NEM:BA).
- National Environmental Management: Protected Areas Act 57 of 2003.
- National Forests Act 84 of 1998.
- Conservation of Agricultural Resources Act 43 of 1983.

The relevant legislation in terms of biodiversity is NEM:BA and NEM:PA as discussed in the sub-sections below. The proposed construction is not in the sensitive environmental area. The area is already disturbed and has several industries in the vicinity.

In terms of section 52(1) (a) of the NEM: BA, a national list of ecosystems that are threatened and in need of protection was gazetted on 09 December 2011 in GN 1002. The list classifies all threatened or protected ecosystems in South Africa in terms of four categories, i.e. Critically Endangered, Endangered, Vulnerable or Protected. The proposed construction is not in the sensitive environmental area. The area

is already disturbed and has several industries in the vicinity. The **Environmental Management Programme (EMPr)** will be compiled as a management tool.

6.9 National Heritage Resources Act

The following applicable pieces of legislation relate to the protection of heritage resources:

- National Heritage Resources Act 25 of 1999 (NHRA).

The South African Heritage Resources Agency (SAHRA is the responsible heritage resources authorities In terms of Section 38 of the NHRA, SAHRA must be notified and furnished with details regarding the location, nature and extent of any proposed development categorised as —

a) *"The construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length.*
b) *The construction of a bridge or similar structure exceeding 50 m in length.*
c) *Any development or other activity which will change the character of a site—*
    (i) Exceeding 5 000 m ² 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 10 000 m2 in extent.*
e) *Any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority."*

The EMPr will cover the heritage resource management in the likely event or chance that heritage resource is encountered during construction phase, however the site is alraeady disturbed.

6.9.1 NHRA;

The site has not been given any formal protection by the SAHRA or the Provincial Heritage Resources Authority under the NHRA. A Heritage and Paleontological Impact Assessment will be undertaken during the EIA process by a specialist to determine the historical value of the site and all findings will be communicated to SAHRA and the Provincial Heritage Resources Authority.

6.10 Occupational Health and Safety Act (Act No. 85 of 1993)

In South Africa, risk assessments are carried out under the legislation of two separate acts, each with different requirements, conducting a number of Occupational Health Risk Assessments, in order to adhere to the OHS Act (85 of 1993) and Regulations. The objective of the Occupational Health and Safety Act (OHSA) is to provide for the health and safety of persons at work. In addition, the Act requires that, "as far as reasonably practicable, employers must ensure that their activities do not expose non-employees to health hazards". The importance of the Act lies in its numerous regulations, many of which will be relevant to the proposed Caustic make-up development. These cover, among other issues, noise and lighting.

GENERAL DUTIES OF THE EMPLOYERS TO THEIR EMPLOYEES	
(1)	Every employer shall provide and maintain, as far as is reasonably practicable, a working environment that is safe and without risk to the health of his employees.
(2)	Without derogating from the generality of an employer's duties under subsection (1), the matters to which those duties refer include in particular- a) The provision and maintenance of systems of work, plant and machinery that, as far as is reasonably practicable, are safe and without risks to health; b) Taking such steps as may be reasonably practicable to eliminate or mitigate any hazard or potential hazard to the safety or health of employees, before resorting to personal protective equipment; c) Establishing, as far as is reasonably practicable, what hazards to the health or safety of persons are attached to any work which is performed, any article or substance which is produced, processed, used, handled, stored or transported and any plant or machinery which is used in his business, and he shall, as far as is reasonably practicable, further establish what precautionary measures should be taken with respect to such work, article, substance, plant or machinery in order to protect the health and safety of persons, and he shall provide the necessary means to apply such precautionary measures; d) Providing such information, instructions, training and supervision as may be necessary to ensure, as far as is reasonably practicable, the health and safety at work of his employees; e) As far as is reasonably practicable, not permitting any employee to do any work or to produce, process, use, handle, store or transport any article or substance or to operate any plant or machinery, unless the precautionary measures contemplated in paragraphs (b) and (d), or any other precautionary measures which may be prescribed, have been taken; f) Taking all necessary measures to ensure that tire requirements of this Act are complied with by every person in his employment or on premises under his control where plant or machinery is used; g) Enforcing such measures as may be necessary in the interest of health and safety; h) Ensuring that work is performed and that plant or machinery is used under the general supervision of a person trained to understand the hazards associated with it and who have the authority to ensure that precautionary measures taken by the employer are implemented; and authority as contemplated in Section 37 (1) (b).
14: GENERAL DUTIES OF EMPLOYEES AT WORK Every employee shall at work:-	
(a)	Take reasonable care for the health and safety of himself and of other persons who may be affected by his acts or omissions;
(b)	As regards any duty or requirement imposed on his employer or any other person by this Act, cooperate with such employer or person to enable that duty or requirement to be performed or complied with;
(c)	Carry out any lawful order given to him, and obey the health and safety rules and procedures laid down by his employer or by anyone authorized thereto by his employer, in the interest of health or safety;

(d)	If any situation which is unsafe or unhealthy comes to his attention, as soon as practicable report such situation to his employer or to the health and safety representative for his workplace or section thereof, as the case may be, who shall report it to the employer; and
(e)	If he is involved in any incident which may affect his health or which has caused an injury to himself, report such incident to his employer or to anyone authorized thereto by the employer, or to his health and safety representative, as soon as practicable but not later than the end of the particular shift during which the incident occurred, unless the circumstances were such that the reporting of the incident was not possible, in which case he shall report the incident as soon as practicable thereafter
	15: DUTY NOT TO INTERFERE WITH, DAMAGE OR MISUSE THINGS **[S. 15 substituted by S. 3 of Act No. 181 of 1993.]**
	No person shall intentionally or recklessly interfere with, damage or misuse anything, which is provided in the interest of health or safety.

Relevance to the proposed Caustic Soda Development

The proponent must be aware of the principles and broad liability and implications contained in the OHSA and mitigate any potential impacts.

6.10.1 EIA Risk Assessment Emergency Preparedness

Risk assessments regarding public health and safety from major incidents under NEMA are associated with EIAs and must be performed in accordance with NEMA. In this instance, impacts on the environment must be evaluated and mitigation proposed by the specialist conducting the investigation. Section 30 of NEMA deals with the control of emergency incidents where an incident is defined as an unexpected sudden occurrence, including a major emission, fire or explosion leading to serious danger to the public or potentially serious pollution of or detriment to the environment, whether immediate or delayed." NEMA goes further by giving instructions with regard to reporting such an incident and limiting the effects of such an incident regarding risks to public health and the environment. The identification and mitigation of potential Section 30 incidents is thus crucial in the risk assessment of the project.

The MHI risk assessment will serve to review all proposed safety measures. Additional measures, if required, will be implemented on the basis of recommendations from the MHI risk assessment. A HAZOP (hazard and operability study) will be undertaken prior to the commencement of construction. This involves a detailed analysis of all production processes and safety systems

At the EIA phase there is insufficient detailed information to complete a Major Hazard Installation **(MHI)** risk assessment in full accordance with the MHI Regulations. For example, emergency plans and Emergency

preparedness will be developed and the final designs and a full Emergency preparedness will be included in the Environmental Impact Report and submitted with the final EIA to the relevant authority for consideration. Under these circumstances, a risk assessment would be conducted generally in accordance with the prescribed topics of the MHI Regulations. The MHI risk assessment is not a basic requirement for EIA approval.

The EIA phase determines if there are any fatal flaws that will prevent the project proceeding and the EIA risk assessment should have a statement from a professional person covering:

- The identification of potential NEMA Section 30 incidents.
- The determination of whether the proposed AC project is likely to be considered a MHI.
- If found to be an MHI, the determination of whether the proposed AC project would meet the requirements of the MHI Regulations and whether the risks could be engineered or managed to an acceptable level.
- The determination of whether there any factors that will prevent the project from proceeding to the next phase of construction or alternatively whether the project could continue under certain conditions or with mitigation.
- The determination of whether there are any special requirements that the local authorities should be aware of when evaluating the proposal.
- AC will investigate these issues and will be detailed further during the EIA phase

6.10.2 Major Hazardous Installation Regulations

The Major Hazard Installation Regulations (MHI Regulations) were first promulgated in Government Gazette No. 18608 as GN No. R. 96 of 16 January 1998. These Regulations were reviewed and promulgated a second time in Government Gazette No. 22506 as GN No. R. 692 of 30 July 2001 (in terms of section 43 of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)). In terms of the Act, " major hazard installation" means an installation –

a) where more than the prescribed quantity of any substance is or may be kept, whether permanently or temporarily; or

(b) where any substance is produced, used, handled or stored in such a form and quantity that it has the potential to cause a major incident. In accordance with the General Machinery Regulations and its Schedule A on notifiable substances

The Occupational Health and Safety Act 85 of 1993 (OHSA) and the MHI Regulations (GN R692, 30 July 2001) require that a MHI risk assessment be undertaken for installations which have on their premises a

quantity of a substance which can pose a significant risk to the health and safety of employees and the public.

The Department of Labour requires that a MHI risk assessment be undertaken **prior to** construction to determine if the project can be constructed and operated with all risks to employees and the public at an acceptable level. The MHI report must be prepared by a registered Department of Labour Approved Inspection Authority. The risk assessment undertaken during the EIA would be updated to include recalculations for the changes indicated by the Environmental Authorisation and would include all the required elements of the MHI Regulations not completed in the EIA risk assessment, such as evaluation of emergency planning.

The MHI risk assessment must be submitted to the Department of Labour and the City of Ekurhuleni Municipality: Disaster Management / Fire and Rescue/ Emergency Services

6.11 Other Legislation and Policies (Planning)

In the Gauteng province, there are several relevant provincial planning laws such as Town Planning Scheme 2014, Site Development Plan and Local Spatial Development Framework (LSDF) that contain the terms of reference defined in Town and Planning Schemes of 2014. The applicable authority in terms of planning issues is the City of Ekurhuleni Metropolitan Municipality: City Planning.

There is a need to determine compliance against the following piece of local planning policies

- Gauteng Ridges Guideline;
- Gauteng pollution buffer zone guideline;
- GDARD Requirements for Biodiversity Assessments V3
- Red List Plant Guidelines

6.11.1 Municipal Bylaws and Permits

The following permits /licences will need to be obtained from the City of Ekurhuleni Metropolitan Municipality in terms of the proposed project:

- Discharge of sewage to the sewage disposal system.
- Discharge of industrial effluent to the sewage disposal system.
- Water supply permit /agreement for potable water and firefighting requirements.
- Electricity supply permit
- General and /or industrial waste removal permit /agreement for the removal of general and /or industrial waste (any industrial waste for which waste removal contractors are not used).
- Scheduled trade permit in terms of the environmental health bylaws.

The following permits may also be required:

- Permits related to export of scheduled substances (GN R92) in terms of the International Trade Administration Act 71 of 2002.
- Licence for the supply of hazardous substances in terms of the Hazardous Substances Act 15 of 1973.
- Compliance and certificates covered by the SANS Regulations

6.11.2 Local Policies, Programmes and Plans

A plethora of policies, programmes and plans are applicable to the proposed project, the most relevant being:

- City of Ekurhuleni Metropolitan Municipality Plan (IDP).
- The operation of industries located in the Industrial Development Zones and SEZ
- Ekurhuleni Metropolitan Municipality AQMP - Air Quality Management Plan for the Ekurhuleni Metropolitan municipality

Relevance to the proposed Caustic Soda Development
▪ The applicant will simultaneously submit the application for permits /licences that will need to be obtained from the City of Ekurhuleni Metropolitan

7 Project Need and Desirability

In accordance with Item 2.(1)(f) in Appendix 2 of GN 326, this chapter provides 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.

The DEA has published a "Guideline on Need and Desirability" (DEA, 2017) which contains best practice guidelines for the consideration of the need and desirability of a development involving NEMA listed activities. Need and desirability is based on the principle of sustainability, set out in the Constitution and in NEMA, and provided for in various policies and plans, including the National Development Plan 2030. Addressing the need and desirability of a development is a way of ensuring sustainable development – in other words, that a development is ecologically sustainable and socially and economically justifiable – and ensuring the simultaneous achievement of the triple bottom-line.

The guideline sets out a list of questions which should be addressed when considering need and desirability of a proposed development based on Section 24 of the Constitution which calls for the securing of "ecological sustainable development and use of natural resources" and the promotion of "justifiable economic and social development". In terms of the proposed caustic soda development, the guideline list of questions are answered in **Table 7-1 below**

Table 7-1 Questions from the Guideline on Need and Desirability

No	Questions from the Guideline on Need and Desirability (DEA, 2017)	Applicability to the Project
	"securing ecological sustainable development and use of natural resources" (Section 24 of the Constitution	
	1. How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?	
1.1	How were the following ecological integrity considerations taken into account :- 1.1.1 Threatened Ecosystems. 1.1.2 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. 1.1.3 Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs). 1.1.4 Conservation targets. 1.1.5 Ecological drivers of the ecosystem. 1.1.6 Environmental Management Framework. 1.1.7 Spatial Development Framework. 1.1.8 Global and international responsibilities relating to the environment (e.g. RAMSAR sites, Climate Change, etc.).	The baseline ecological studies conducted before exists The site is already disturbed and there are No threatened ecosystems, sensitive, vulnerable or stressed ecosystems.
1.2	How will this development disturb or enhance ecosystems and/or result in the loss or protection of biological diversity? What measures were explored to firstly avoid these negative impacts, and where these negative impacts could not be avoided altogether, what measures were explored to minimise and remedy (including	

No	Questions from the Guideline on Need and Desirability (DEA, 2017)	Applicability to the Project
	offsetting) the impacts? What measures were explored to enhance positive impacts?	
	Questions from the Guideline on Need and Desirability (DEA, 2017)	**Applicability to the Project**
1..3	How will this development pollute and/or degrade the biophysical environment? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	**The biophysical environmental attributes will be developed** **Water**: The specialist studies will be conducted during EIA and included in the Environmental Impact Report with recommendations **Air:** An AQIA (Impact assessment) for the current application will be undertaken parallel to the EIA process (refer to **Section 6.5 above)**
1.4	What waste will be generated by this development? What measures were explored to firstly avoid waste, and where waste could not be avoided altogether, what measures were explored to minimise, reuse and/or recycle the waste? What measures have been explored to safely treat and/or dispose of unavoidable waste?	The following waste streams are expected to be produced by the plant: ▪ Storm water runoff. ▪ Tank overflow or draining Spillages – with Mixture of water and low concentration of caustic which will be contained in the bund ▪ General waste from the empty bags of caustic soda prills and lye - Measures: - Wherever possible, the liquid streams are to be recycled back into the system as measure to **re-use** - Company contracted services will provide guidance for site re-cycle and reuse of caustic empty bags ▪ Vent-gas from the caustic dissolution tanks is directed to atmosphere. This is clean air and water vapour. ▪ Vent-gas from the scrubber unit is discharged to atmosphere. This is clean air and water vapour. Liquid effluent and atmospheric emissions (refer to **Sections 6.5.2**).

No	Questions from the Guideline on Need and Desirability (DEA, 2017)	Applicability to the Project
1.5	How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	ERF 198 site for proposed development is surrounded by industries and similar chemical industries, visual impact on the landscape is anticipated to be limited. The EMPr for the proposed development will include the provision that in the unlikely event that any potential cultural heritage resources are discovered during construction, construction works should halt.
1.6	How will this development use and/or impact on non-renewable natural resources? What measures were explored to ensure responsible and equitable use of the resources? How have the consequences of the depletion of the non-renewable natural resources been considered? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	No other new technology mix identified. The EIA will deal with the alternative technology and recommend any measures to enhance positive impacts (see details on Technology below)
1.7	How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part? Will the use of the resources and/or impact on the ecosystem jeopardise the integrity of the resource and/or system taking into account carrying capacity restrictions, limits of acceptable change, and thresholds? What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimise the use of resources? What measures were taken to ensure responsible and equitable use of the resources? What measures were explored to enhance positive impacts?	The primary inputs into the proposed production process are: **IN:-** ▪ Caustic flakes in 1-ton bulk bags ▪ Demin water supply (from New RO plant to be installed) ▪ Portable Water supply From the Water authority **OUT:-** ▪ Caustic sump waste – to containment infrastructure to be constructed for any

No	Questions from the Guideline on Need and Desirability (DEA, 2017)	Applicability to the Project
	1) Does the proposed development exacerbate the increased dependency on increased use of resources to maintain economic growth or does it reduce resource dependency (i.e. de-materialised growth)? (note: sustainability requires that settlements reduce their ecological footprint by using less material and energy demands and reduce the amount of waste they generate, without compromising their quest to improve their quality of life). 2) Does the proposed use of natural resources constitute the best use thereof? Is the use justifiable when considering intra- and intergenerational equity, and are there more important priorities for which the resources should be used (i.e. what are the opportunity costs of using these resources for the proposed development alternative?). 3) Do the proposed location, type and scale of development promote a reduced dependency on resources?	caustic sump waste – Waste containment infrastructure ▪ Caustic lye tanker – load out ▪ Caustic lye IBC load out
1.8	How were a risk-averse and cautious approach applied in terms of ecological impacts? 1) What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)? 2) What is the level of risk associated with the limits of current knowledge? 3) Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?	The ecological impacts studies were conducted for the primary area and baseline data exists. There were no wetlands or ecological resources of significant value within ERF 198 Chloorkop-IR
1.9	How will the ecological impacts resulting from this development impact on people's environmental right in terms following: 1) Negative impacts: e.g. access to resources, opportunity costs, loss of amenity (e.g. open	The following specialist studies will be undertaken as part of the EIA in this application: ▪ Health and safety risk/ Emergency Preparedness and the (MHI) ▪ Air quality Impact Assessment

No	Questions from the Guideline on Need and Desirability (DEA, 2017)	Applicability to the Project
	space), air and water quality impacts, nuisance (Noise, odour, etc.), health impacts, visual impacts, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts? 2) Positive impacts: e.g. improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance positive impacts?	▪ Waste Management ▪ Surface and groundwater Assessment ▪ Traffic Impact Assessment (TIA) ▪ Socio-economic. ▪ Public Participation
1.10	Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio economic impact - (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)?	Due to the existence of other industrial operation in the vicinity of the site, the site is extensively disturbed and no direct ecological impacts are anticipated. Potential impacts on Socio-economy and impacts on livelihoods will be assessed during the EIA phase specialist studies.
1.11	Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives/targets/considerations of the area?	As above.
1.12	Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the "best practicable environmental option" in terms of ecological considerations?	The site has been determined as suitable for industrial development of this nature as per the Zoning certificate – Industrial type 1 The primary area is a MHI and has in place an approved Emergency Response Procedure
1.13	Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and existing and other planned developments in the area?	Same as above

No	Questions from the Guideline on Need and Desirability (DEA, 2017)	Applicability to the Project
	"promoting justifiable economic and social development" (Section 24 of the Constitution)	
2.1	What is the socio-economic context of the area, based on, amongst other considerations, the following considerations? 1) The IDP (and its sector plans' vision, objectives, strategies, indicators and targets) and any other strategic plans, frameworks of policies applicable to the area. 2) Spatial priorities and desired spatial patterns (e.g. need for integrated of segregated communities, need to upgrade informal settlements, need for densification, etc.). 3) Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.), and 4) Municipal Economic Development Strategy ("LED Strategy").	The site has been assessed as suitable for industrial development in terms of the Local SDF ERF 198 is zoned as an Industrial type 1. The IDP and SDF both identify the importance of achieving sustainable development objectives and reducing the high levels unemployment and poverty in the area
2.2	Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area? 1) Will the development complement the local socio-economic initiatives (such as local economic development (LED) initiatives), or skills development programs?	A socio-economic impact assessment may be undertaken during the EIA phase. This will be responded to during the EIA phase.
2.3	How will this development address the specific physical, psychological, developmental, cultural and social needs and interests of the relevant communities?	This will be responded to during the EIA phase as above

No	Questions from the Guideline on Need and Desirability (DEA, 2017)	Applicability to the Project
2.4	Will the development result in equitable (intra- and inter-generational) impact distribution, in the short- and long-term? Will the impact be socially and economically sustainable in the short- and long-term?	This will be responded to during the EIA phase. As above
2.5	In terms of location, describe how the placement of the proposed development will: 1) Result in the creation of residential and employment opportunities in close proximity to or integrated with each other. 2) Reduce the need for transport of people and goods pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport). 3) Result in access to public transport or enable non-motorised and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport). 4) Compliment other uses in the area. 5) Be in line with the planning for the area. 6) For urban related development, make use of underutilised land available with the urban edge. 7) Optimise the use of existing resources and infrastructure. 8) Opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g. not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement).	As the proposed AC project is located in an Industrial type 1 area, the proposed development will: ▪ Create employment opportunities in close proximity to other employment opportunities with the potential that will result in densification and the achievement of thresholds in terms public transport. ▪ Complement other industrial uses in the area. ▪ Be in line with the planning for the area. ▪ Make use of underutilised land available within the urban edge. ▪ Optimise the use of services and infrastructure in place ▪ Opportunity for reduction of costs will be realised in terms of the installation of infrastructure and services. ▪ Discourage "urban sprawl" and contribute to compaction/densification within the Industrial areas. ▪ Contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs. ▪ Encourage environmentally sustainable land development practices and processes. ▪ Take into account special locational factors, namely: the benefits of operation near the SEZ and the IDZ, access to the nearby OR airport and access to rail/ main corridors such as N1/ N3 ▪ Ekurhuleni Metropolitan area has a high economic potential

No	Questions from the Guideline on Need and Desirability (DEA, 2017)	Applicability to the Project
	9) Discourage "urban sprawl" and contribute to compaction/densification. 10) Contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs. 11) Encourage environmentally sustainable land development practices and processes. 12) Take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.). 13) The investment in the settlement or area in question will generate the highest socio-economic returns (i.e. an area with high economic potential). 14) Impact on the sense of history, sense of place and heritage of the area and the socio-cultural and cultural-historic characteristics and sensitivities of the area. 15) In terms of the nature, scale and location of the development promote or act as a catalyst to create a more integrated settlement?	
2.6	How were a risk-averse and cautious approach applied in terms of socioeconomic impacts? 1) What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)? 2) What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge?	This will be responded to during the EIA phase.

No	Questions from the Guideline on Need and Desirability (DEA, 2017)	Applicability to the Project
	3) Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?	
2.7	How will the socio-economic impacts resulting from this development impact on people's environmental right in terms following: 1) Negative impacts: e.g. health (e.g. HIV-Aids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts? 2) Positive impacts. What measures were taken to enhance positive impacts?	This will be responded to during the EIA phase.
2.8	Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socio economic impacts will result in ecological impacts (e.g. over utilisation of natural resources, etc.)?	This will be responded to during the EIA phase.
2.9	What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?	This will be responded to during the EIA phase.
2.10	What measures were taken to pursue environmental justice 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 (who are the beneficiaries and is the development located appropriately)? (i) Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" (BPEO)	This will be responded to during the EIA phase.

No	Questions from the Guideline on Need and Desirability (DEA, 2017)	Applicability to the Project
	to be selected, or is there a need for other alternatives to be considered?	
2.11	What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?	This will be responded to during the EIA phase.
2.12	What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?	This will be responded to during the EIA phase by Health and Safety Specialist as well the undergoing Emergency Preparedness Plan and MHI report will address this effectively
2.13	What measures were taken to: 1) Ensure the participation of all interested and affected parties (I&AP's) 2) Provide all people with an opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation. 3) Ensure participation by vulnerable and disadvantaged persons. 4) Promote community wellbeing and empowerment through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means. 5) Ensure openness and transparency, and access to information in terms of the process. 6) Ensure that the interests, needs and values of all interested and affected parties were taken into account, and that adequate recognition	This will be responded to during the EIA phase.

No	Questions from the Guideline on Need and Desirability (DEA, 2017)	Applicability to the Project
	were given to all forms of knowledge, including traditional and ordinary knowledge. 7) Ensure that the vital role of women and youth in environmental management and development were recognised and their full participation therein were be promoted?	
2.14	Considering the interests, needs and values of all the interested and affected parties, describe how the development will allow for opportunities for all the segments of the community (e.g. a mixture of low middle-, and high-income housing opportunities) that is consistent with the priority needs of the local area (or that is proportional to the needs of an area)?	This will be responded to during the Public Participation phase.
2.15	What measures have been taken to ensure that current and/or future workers will be informed of work that potentially might be harmful to human health or the environment or of dangers associated with the work, and what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected?	This is responded to during the Public Participation phase, where the project will be announced both in the print media, posters and other means of contact such telephones and invitation to the public engagements.
2.16	Describe how the development will impact on job creation in terms of, amongst other aspects: 1) The number of temporary versus permanent jobs that will be created. 2) Whether the labour available in the area will be able to take up the job opportunities (i.e. do the required skills match the skills available in the area). 3) The distance from where labourers will have to travel.	This will be responded to during the EIA phase.

No	Questions from the Guideline on Need and Desirability (DEA, 2017)	Applicability to the Project
	4) The location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits). 5) The opportunity costs in terms of job creation (e.g. a mine might create100 jobs, but impact on 1000 agricultural jobs, etc.).	
2.17	What measures were taken to ensure: 1) That there were intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment. 2) That actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?	This will be responded to during the EIA phase.
2.18	What measures were taken to ensure that the environment will be held in public trust for the people, that the beneficial use of environmental resources will serve the public interest, and that the environment will be protected as the people's common heritage?	This will be responded to during the EIA phase.
2.19	Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left?	This will be responded to during the EIA phase.
2.20	What measures were taken to ensure that he costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects will be paid for by those responsible for harming the environment?	This will be responded to during the EIA phase.
2.21	Considering the need to secure ecological integrity and a healthy bio-physical environment, describe how the alternatives identified (in terms of all the different elements of the development	This will be responded to during the EIA phase.

No	Questions from the Guideline on Need and Desirability (DEA, 2017)	Applicability to the Project
	and all the different impacts being proposed), resulted in the selection of the best practicable environmental option in terms of socio-economic considerations?	
2.22	Describe the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and other planned developments in the area?	This will be responded to during the EIA phase.

7.1. DTI SEZ policy has four objectives:

The 2030 National Development Plan (NDP, 2013) places emphasis on transforming the South African economy and creating sustainable expansion for job creation by "increasing exports focusing on those areas where South Africa already has endowments and comparative advantage. The Four objectives highlights:-

- Support the development of targeted industrial capabilities and attract foreign and domestic direct investments in support of the Industrial Policy action Plan (IPAP) and Provincial Industrial Development Strategies (PIDS's), under the over-arching National Development Plan (NDP);
- Develop world-class industrial infrastructure in the line with the requirements of the targeted industries and investments;
- Promote beneficiation and further value addition of the country's mineral and agricultural resources; and
- Contribute to the creation of sustainable jobs and increase exports of beneficiated commodities in the targeted regions.

7.2. Need and desirability of the Project

The production of Caustic soda is therefore very important in transforming SA economy. Caustic soda is widely used in a variety of sectors. It serves as a reactant in the production of organic chemicals. Caustic soda historically, used in the manufacture of soaps and detergents and is prevalent in the pulp and paper industry for separating cellulose fibers from lignin that originate in plant material.

African Chemicals specializes in supplying caustic soda in solid flake as well as in lye form (dissolved in water) which will be according to the any customer's desired concentration and packaging. The applicant has the necessary capacity and skill to set-up a lye caustic soda production plant at any client's premises in order to sell as consignment stock which minimizes inventory on hand for customers and that will guarantee security of supply no matter what occurs in the external market. It would also benefit society by providing local people with jobs.

If future projects become available in the area, it would be sensible to establish caustic soda plant in this location due to the proximity of the plant to local roads. This will have a positive impact in terms of quality of the pre-mix with other chemicals in the industrial site that will be provided and in terms of costs.

The proposed site is significantly degraded due to the previous similar activities on the same site and due to the presence of chlorine plant in the same property adjacent to the proposed site. Thus, the site is bare, and no vegetation will need to be cleared. The Project will benefit society in that:

- Numerous job opportunities for local people will be created.
- Upgrading/construction of roads will improve access and connectivity for communities and businesses.

Negative aspects associated with the Project include the following:

- The caustic plant may release emissions into the atmosphere, which will have an impact on ambient air quality.
- Increased levels of dust and smoke from tail pipe of construction vehicles may occur during construction and transportation of caustic.

7.3. Employment Opportunities

It is projected that caustic soda operation will create approximately 52 permanent skilled employment opportunities, with 55% of these opportunities targeted for previously disadvantaged youth. In addition, approximately 60 people would be employed on a contract basis. There will also be around 300 direct employment opportunities during the construction phase of the project. Opportunities would be created for skilled and trained workers. AC plans to award goods and services contracts for the during construction and operation of the proposed plant to small, medium and micro sized enterprises (SMMEs) in Gauteng, Ekurhuleni area. These contracts shall include canteen, security, gardening, cleaning, transport, mobile equipment maintenance, sales officer, and Information Communication Technology (ICT). Based on an average of each worker supporting six other persons, the project could potentially provide significant indirect local economic benefits. The expected employment benefits for the CAUSTIC SODA operation are illustrated in the following organogram and other chapters below (AC, 2020).

7.4. Parameter Job Profile Value

Table: 7.2: - Expected Employment Benefit from the Caustic Soda Operation

Parameter	Profile	Value
Jobs created by ongoing operation	Permanent	52
Jobs created during construction phase	Temporary	300
Jobs created through Enterprise and Supplier Development	Flexible	60
Designated jobs for Black		80%
Designated Jobs for Black Women		50%
Designated Jobs for Black Youth		55%
Designated Jobs for People living with disabilities		3%
Total Number of Jobs Created excl. enterprise development		629
Total Project Investment		ZAR 133.5 mil

7.5. Skills Development

African Chemicals (AC) is committed to developing the skills required to run a caustic soda plant. AC's technological partner will ensure that its recruitment strategy is aligned to the selection of a team of highly skilled and adequately experienced employees. Each employee will be given the opportunity to develop their skills further as part of their career development pathway. This pathway will outline their progression from their initial position to a position to which they aspire. Career pathways will be unique to each employee. AC plans to appoint experienced managers in key management positions (see the attached, organogram – Figure 7.2.3, such as the marketing manager and chief financial officer. Management training and development is intended to play a key role in the future growth plans of the enterprise. Relevant training courses and workshops will be attended, where required, to address shortcomings in key performance areas such as strategic planning, general management, strategy implementation, effective coordination and control of activities, and time management

7.6. Economic Profile of the area

There are four major concentrations of previously disadvantaged communities within the Ekurhuleni municipality. Due to the historical spatial separation of low-income, black-township areas are separated from key economic areas within Gauteng. Collectively, these areas represent 61% of the municipality's population, and contribute to the high levels of poverty within Ekurhuleni (City of Ekurhuleni, 2016).The population of Ekurhuleni is approximately 3.3 million people, which represents 6% of South Africa's population (Statistics SA, 2017). The growth rate of the population within Ekurhuleni is 2.47% (whereas nationally it is 1.2%) (City of Ekurhuleni, 2018). This growth is likely to be driven by the in-migration of people to the area.

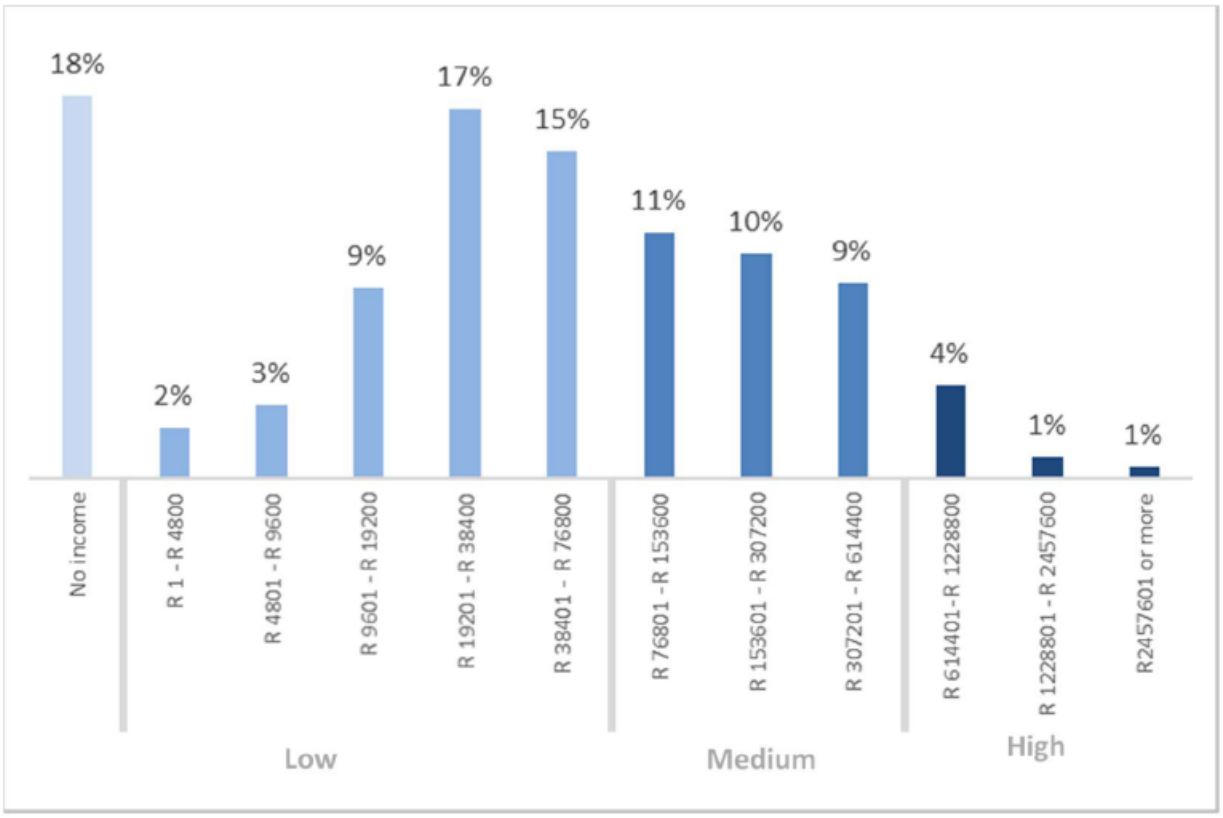
Ekurhuleni attracts a high number of jobseekers from areas outside of the city (e.g. rural areas, other provinces and neighbouring countries). The population of the municipality is largely concentrated in the young adult group (20-34 years of age). The immigration of people may skew the demographics, as it is likely to be young adults who move to the area for work. The majority (80%) of the population falls into the Black-African population group, followed by White (14%), Coloured (3%) and Indian (2%) (City of Ekurhuleni, 2018). The languages spoken reflect the diversity of people that migrate to the area. The mostly widely spoken first language is isiZulu (34%), followed by Sepedi (12%) Sesotho (11%) and English (10%) (City of Ekurhuleni, 2018).

The local area comprises a mix of low and middle-income households, with 18% of local households not receiving any form of income. The majority of households (46%) are considered low-income, 30% of households considered middle-income, and 6% considered high-income households (See Figure 7).

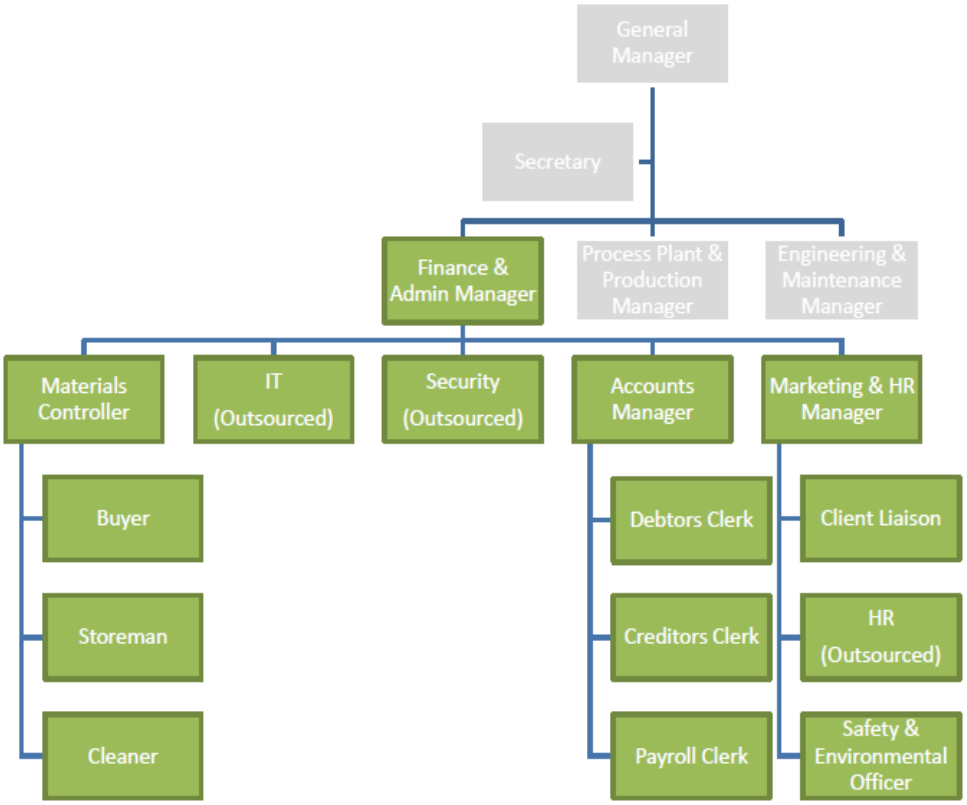
7.7. Regional Economy

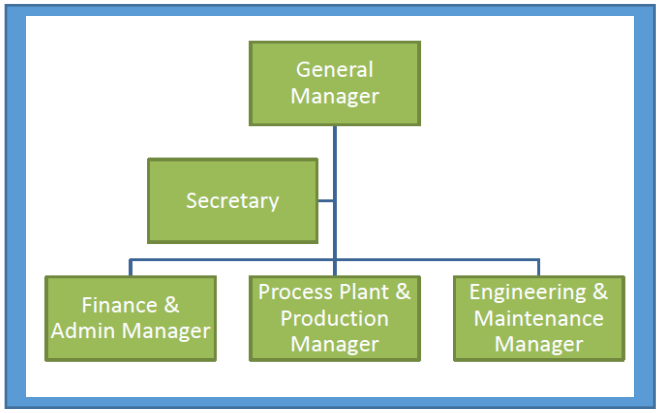
Ekurhuleni is comprised of approximately 1.3 million households; 18% of which are considered informal (City of Ekurhuleni, 2018). The distribution of income per household is similar to that of Tshwane and the City of Johannesburg's, with 18% having no income 21% low income 32% low-middle, 2% middle-high and 4% high income (Statistics SA, 2012).The Chloorkop area is currently expanding to include new industrial parks on formerly vacant or transformed (Ekurhuleni Metropolitan Municipality, 2015). The proximity of the industrial area to surrounding residential areas makes it suitable for expansion not only to infill, but also to be close to the labour source for industry

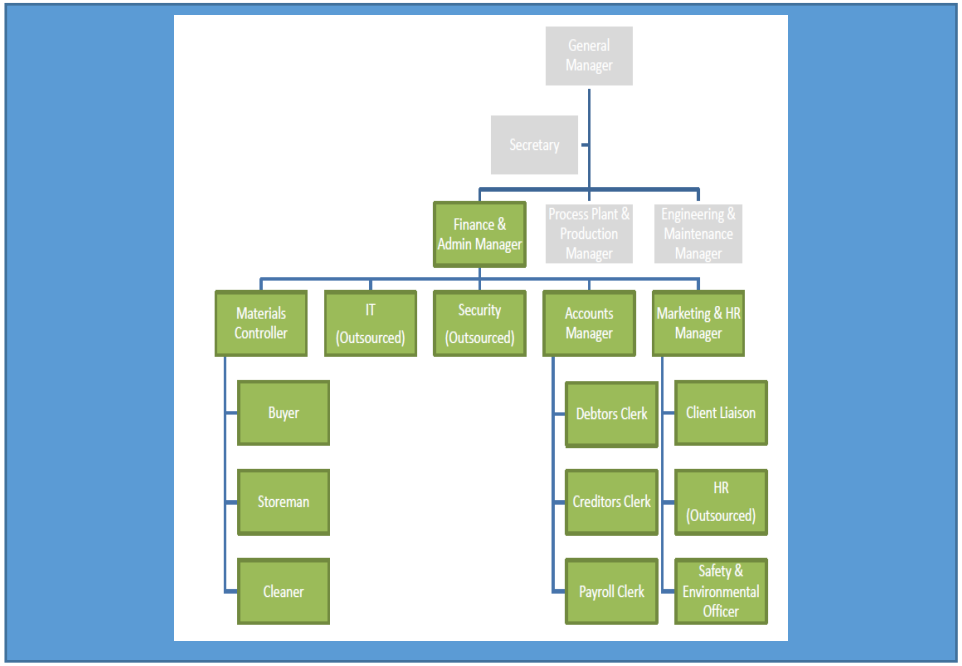
Fig: 7.3 Total Household Income Per Year (Source: Statistics South Africa)

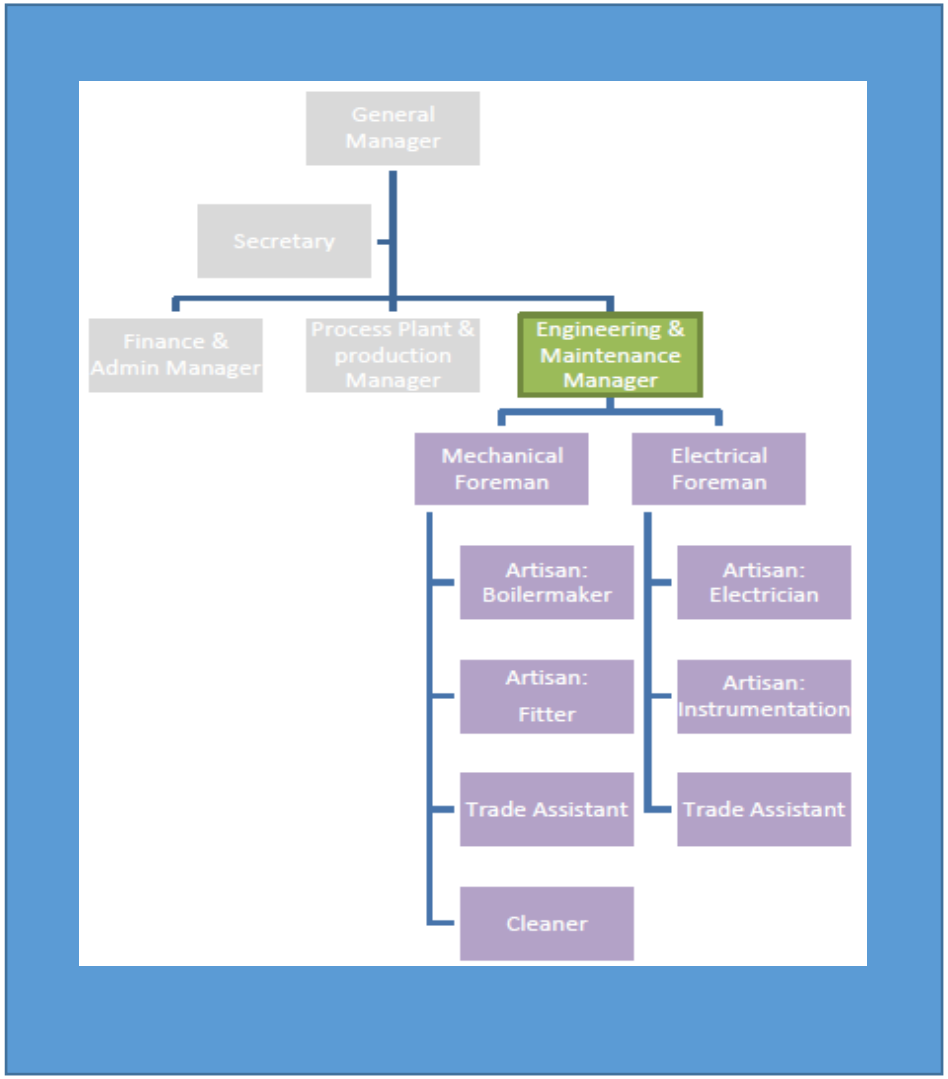


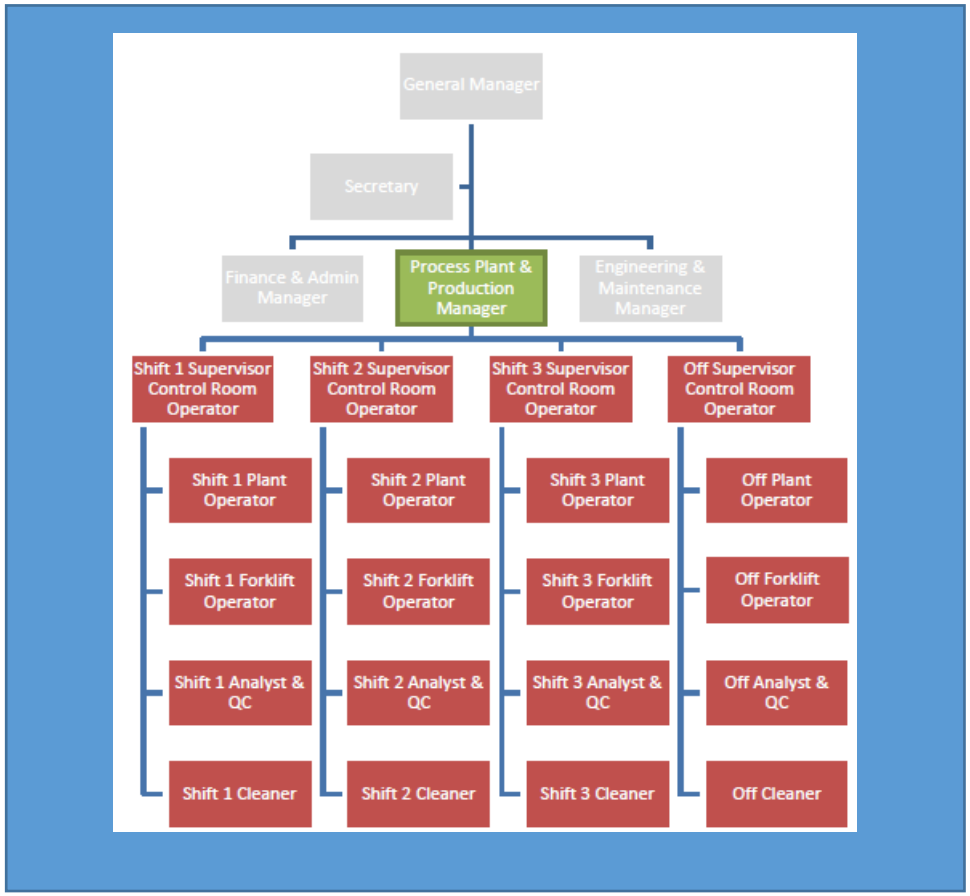
7.8. Company Organogram




General Manager
Secretary
Finance & Admin Manager
Process Plant & Production Manager
Engineering & Maintenance Manager


General Manager
Secretary
Finance & Admin Manager
Process Plant & Production Manager
Engineering & Maintenance Manager
Materials Controller
IT (Outsourced)
Security (Outsourced)
Accounts Manager
Marketing & HR Manager
Buyer
Storeman
Cleaner
Debtors Clerk
Creditors Clerk
Payroll Clerk
Client Liaison
HR (Outsourced)
Safety & Environmental Officer


General Manager
Secretary
Finance & Admin Manager
Process Plant & production Manager
Engineering & Maintenance Manager
Mechanical Foreman
Electrical Foreman
Artisan: Boilermaker
Artisan: Fitter
Trade Assistant
Cleaner
Artisan: Electrician
Artisan: Instrumentation
Trade Assistant


General Manager
Secretary
Finance & Admin Manager
Process Plant & Production Manager
Engineering & Maintenance Manager
Shift 1 Supervisor Control Room Operator
Shift 2 Supervisor Control Room Operator
Shift 3 Supervisor Control Room Operator
Off Supervisor Control Room Operator
Shift 1 Plant Operator
Shift 1 Forklift Operator
Shift 1 Analyst & QC
Shift 1 Cleaner
Shift 2 Plant Operator
Shift 2 Forklift Operator
Shift 2 Analyst & QC
Shift 2 Cleaner
Shift 3 Plant Operator
Shift 3 Forklift Operator
Shift 3 Analyst & QC
Shift 3 Cleaner
Off Plant Operator
Off Forklift Operator
Off Analyst & QC
Off Cleaner

Some of the training that will be required to be undertaken includes:

- Safety, Health and Environment management and awareness (including emergency response).
- Forklift operation.
- Dangerous goods handling.
- ISO9001, ISO14001, ISO 45001 and NSF listing
- Plant operation.
- CAUSTIC SODA chemistry and handling.
- Crane handling.
- Operation troubleshooting.

8 Alternatives

Item 2(1) (g) in Appendix 2 of GN 326 stipulates that the Scoping Report must provide a full description of the process followed to reach the preferred activity, site and location of the development footprint within the site. This chapter meets the requirements of Items 2.(1)(g)(i) and 2.(1)(g)(x), by providing details of all the alternatives considered and a motivation where alternatives were not considered.

The following alternatives are discussed in the sub-sections below:

- The property on which or **Location** where it is proposed to undertake the activity;
- The type of activity to be undertaken and **Technology**
- The design or **Layout** of the activity;
- The **No-go** aspects

All identified feasible alternatives are required to be evaluated in terms of social, biophysical, economic and technical factors.

8.1 Technology

The Technology was selected based on African Chemicals experience in the supply of caustic soda in solid flake as well as in lye form. The caustic flakes and water in the Caustic Dissolution Tank are mixed by the Caustic Dissolution Tank Agitator, to ensure homogenous dissolution. The caustic flakes dissolution is exothermic, causing heat generation during dissolution. The Caustic Dissolution Tank Fan draws out the hot water vapours that form in the Caustic Dissolution Tank due to the heat of dissolution. Removing the water vapour, which allows dry air to be pulled through the Caustic Metering Screw Feeder opening. This prevents the caustic solids in the Caustic Metering Screw Feeder from getting wet, preventing blockages. The excess heat is removed by circulating the liquid caustic solution (caustic lye) through an external plate heat exchanger, the Caustic Dissolution Cooler, to maintain a temperature in the Caustic Dissolution Tank of 120 °C

8.2 Location

The site location was selected based on the following factors:

- Proximity to similar chemical producing industries
- Proximity to the OR Tambo and other logistic such as N1/N3 corridors
- Allows for lower logistics costs when transporting raw materials to site.
- Allows access to other provinces shipping and international shipping routes for product export.
- Product demand in Gauteng and surrounding such Mpumalanga and North West
- Allows AC to service markets more cost-effectively than producers in the other areas
- Benefits associated with being situated within an Industrial zone
- Any other vacant land nearby and alternatives were considered

8.3 Alternative Site location

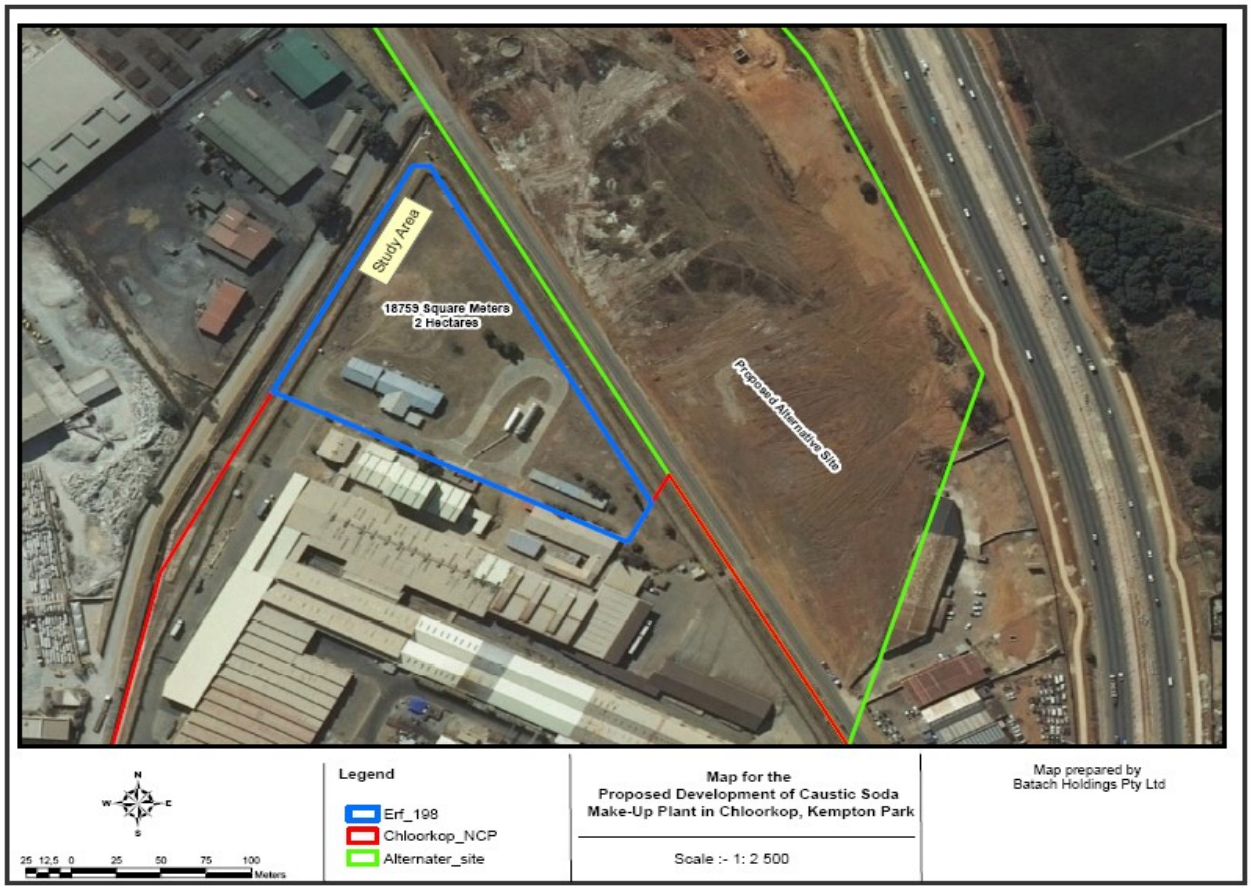


Fig. 8.1

Alternative site layouts were considered in terms of a preliminary risk and logistics assessment as part of the feasibility study. The health and safety risk assessment (MHI) which is ongoing, will in the next phase of the EIA process be undertaken for modelling to consider the risk levels with respect to processes such

as liquefaction and caustic & lye storage and recommendations from the study may result in further amendments to the layout to mitigate potential risks to an acceptable level.

Fig. 8.2

The above site map is included as the further possible site identification for utilisation of parking and any other related off-site heavy-duty vehicle and transport such as trucks and tankers.

8.4 No-go

The no-go alternative implies the continuation of the status quo in terms of development potential, zoning and management. In the case of the AC site, this would mean leaving the land as is i.e. vacant. However, the site has been zoned for industrial use (INDUSTRIAL Type 1), and is in line with the Local SDF. The site is extensively disturbed and is partially transformed and without any environmental sensitivity. It seems likely that industrial development would have taken place on the site at some stage in the future

The site is not a sensitive area from an environmental resources point of view. Potential negative risks and impacts associated with the proposed development would not apply in a no-go situation. The potentially highly significant positive socio-economic impacts would also not be realised if the area is not developed. . By not developing the site, the site will be anomalous in the context of the surrounding urban land uses, and some of the direct and indirect socio-economic benefits (i.e. job creation will not materialize

The benefits associated with the development currently outweigh the potential negative impact associated with the project. As such, the no go alternative is not preferred by the EAP. The "no–go" alternative is therefore not considered the preferred alternative.

All the different preferred alternatives will be used to determine the final layout of the proposed development so that it has the least environmental impact on the environment.

9 Environmental Attributes

This chapter will meet the requirements of Item 2.(1)(g)(iv) in Appendix 2 of GN 326, by providing details of the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects. A general description of the status quo of the receiving environment in the project area provides the context within which the EIA is being conducted and allows for an appreciation of sensitive environmental features and possible receptors of the effects of the proposed project.

9.1. The attributes that are associated with the Location alternative.

9.1.1. Land use

The primary area and ERF 198 is situated on the existing Industrial urban area of Kempton Park Chloorkop and approximately 5km to the South of the Central Business District of Kempton Park. The main arterial roads providing access to Chloorkop are:

- Zuurfontein Road (Route M39). This is a north-south route just to the east of Chloorkop that links Tembisa to the Isando industrial area and to central Kempton Park (via CR Swart Road).
- Chloorkop/Allandale Road (Route R561/Route M39). This is an east-west route just to the north of Chloorkop that links Zuurfontein Road to National Road N1 in Midrand.
- Modderfontein Road (Route R25). This road, which interchanges with Zuurfontein Road 2 kilometres south of Chloorkop, links National Road N3 in Edenvale to the Route R21 freeway in northern Kempton Park. These arterial roads link the Chloorkop site to national and regional freeway systems, namely National Route N1, National Route N3, National Route N12, Route R21 and Route R23

In terms of land use, the quaternary catchment area is characterised by intense past land-use modifications from agriculture, mining, tourism, residential, recreational and industrial development activities. The primary area is bordered by mixed-use industrial developments as well as residential areas and open areas (refer to **map Fig 5.1 above)**. The broader surrounding area contributes significantly to the storm water drainage that runs through the study site.

The developable land has a surface area of approximately 18 thousand square meters, although the area to be developed will be less (based on the required coverage factor). The terrain across the primary area is generally very flat with a gradual slope towards the south from an elevation of approximately 67 metres above mean sea level (mamsl) on the northern boundary to approximately 42 mamsl on the southern boundary.

9.1.2. Roads

African Chemicals plans to import caustic soda and transport it to the proposed plant/ site for dissolution into lye form and distribute it to nearby Provinces such North West and Mpumalanga. It is assumed that 50% of the vehicles will use Allendale Road, N1 and N4 to travel to North West and the remainder will use M39, R21 and N12 to travel to Mpumalanga (Oarona Consulting Engineers, TIA 2020). A traffic study is currently underway for the proposed Caustic Soda development to inform the EIA report (**TIA Oorona Consulting Engineers 2020**).

Capacity	The maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic and control conditions.
Volume	The total number of vehicles or other roadway users that pass over a given point or section of a lane or roadway during a given time interval, often 1 hour.
Volume to Capacity (v/c) Ratio	The ratio of flow rate to capacity for a system element.
Level of Service (LOS score)	A numerical output from a traveller perception model that typically indicates the average rating that travellers would give a transportation facility or service under a given set of conditions.

Source: Capacity Analysis Terminology (Oarona, TIA, 2020)

9.1.3. Noise

Noise levels in the study area are currently generated mostly by vehicular traffic and surrounding industries. Noise impact may result during the construction phase such as the operation of machinery and equipment, as well as construction vehicle and traffic noise. The construction and operational phases of the proposed caustic soda development are expected to have a low cumulative impact on the noise levels

in the surrounding area. On-going noise monitoring to ensure compliance with legislated requirements will be included in the EMPr.

9.1.4. Visual Landscape

As the site is surrounded mainly by other industries with similar chemical products, the aesthetic character of the landscape is not anticipated to be significantly impacted by the proposed development as the area is already disturbed. During the construction phase, the inadequate storage of material, equipment and waste may result in a potential visual impact. In terms of the operational phase, photographs of similar plants and typical plant layouts will be shown. A visual impact assessment specialist study to assess potential visual impacts associated with the plant will be undertaken to inform the EIA report and management and mitigation measures, if required, will be included in the EMPr.

9.1.5. Existing Infrastructure and Services

The specialist engineering studies will be conducted for Installation of the necessary infrastructure and services such as: -

- Water mains. Tie-ins
- Storm water infrastructure.
- Sewer infrastructure.
- Internal electrical infrastructure.
- Other infrastructure such as the entrance gate complex and ICT infrastructure.

9.1.6. Storm Water

The applicant is responsible for constructing its own storm water management that will tie into the existing storm water infrastructure. A Storm Water Management Plan will be prepared for the caustic soda site and the storm water management measures and guidelines stipulated by the City of Ekurhuleni Metropolitan will inform the EMPr for the proposed project.

9.1.7. Geohydrology

Batach Holdings will be conducting an Assessment of Anticipated Geohydrological Conditions for the proposed caustic soda below within the Quaternary area and recommendations will be submitted to the competent authority for taking informed decision. The EIA report (EIR) and a Storm Water Management report will be developed and amended accordingly during the EIA

9.1.8. Geology and Soils

The Geotechnical investigation was conducted by a geo-tech engineer during the preliminary assessment study. The report and recommendations will be incorporated in the EIA phase and incorporated in the Final Report (EIR).

9.1.9. Air Quality

Kempton Park, Chloorkop constitutes one of the highly industrialised areas in the country, consisting of various types of industries including Air liquid, pulp and paper mills, chemicals, iron, steel, fertiliser, mineral mining, cement, blasting etc. In relatively close proximity to the industrial areas are residential areas, both township and urban, in which various domestic activities are conducted in the vicinity. The main sources of air pollution within the area are industries and vehicle emissions with other sources include biomass burning, ambient monitoring stations located in the nearby areas, which are well regulated by Ekurhuleni Metropolitan Municipality (EMM).

The pollutants currently measured by these stations include such as:

- Chorine
- Sulphur dioxide (SO2).
- Nitrogen dioxide (NO2).
- Particulate matter with an aerodynamic diameter of less than 10 microns (PM10).
- Particulate matter less than 2.5 microns (PM2.5).
- Ozone (O3).

The monitoring stations also continuously monitor meteorological data, including: wind direction and speed, temperature, relative humidity and rainfall. The real time monitoring network consisting of stations in the Kempton area that monitor meteorology as well as:

- SO2.
- Total reduced sulphur (TRS).
- PM10.

African Chemicals proposed construction is required to comply with relevant local, national and international air quality standards and regulations as mentioned above. The location selected by the landlord is the preferred site which will be easy for the applicant to comply.

9.2. The attributes that are associated with No-Go alternative.

9.2.1. Socio-economic Environment

The vision for African Chemicals, aims to empower African industrial consumers with quality chemical products and services in a manner that reduces and optimizes their total costs. This specifically pertains to satisfying the general African customers with their needs within proximity. African Chemicals intends increasing employment opportunities and further contribute to the local economic development within the respective domestic economy. The Socio Economic study will determine the benefits of such project and consider the positive impacts to the environment and local communities.

9.1.1. Heritage

The area footprint as indicated necessitates the heritage specialist input to ensure that through heritage resources, which may be affected, are conserved, barricaded and registered as a No-go, the site inspection done already indicates that the site is already degraded.

9.1.2. Health and safety

African Chemicals proposed construction is required to comply with relevant local, national health and standards and regulations.

10. Assessment Methodology

This chapter will meet the requirements of Item 2.(1)(g)(vi) in Appendix 2 of GN 326, by providing the methodology used in identifying and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives. The methodology to be utilised to assess and rank each of the potential environmental impacts and risks identified has been formulated to comply with the scope of assessment and content of EIA Reports as specified in Appendix 3 of the Amended 2014 EIA Regulations (refer to item 3(j) of Appendix 3 in Government Notice R326).

The required scope of assessment is provided below:

10.1. Identification of Impacts and Risks

According to Appendix 2, Section 2 (1), of the EIA Regulations 2014 (as amended) a "scoping report must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process, and must include:

(g) a full description of the process followed to reach the proposed preferred activity, site and location of the development footprint within the site, including—

(v) the impacts and risks which have informed the identification of each alternative, including the nature, significance, consequence, extent, duration and probability of such identified impacts, including the degree to which these impacts—

(aa) can be reversed;

(bb) may cause irreplaceable loss of resources; and

(cc) can be avoided, managed or mitigated;

(vi) the methodology used in identifying and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;

(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;

(viii) the possible mitigation measures that could be applied and level of residual risk;

(ix) the outcome of the site selection matrix;

During the Scoping Phase, impacts are assessed and rated on a broader issue level and are regarded as preliminary. This is because, at the Scoping Phase of the EIA process, a limited amount of information on project-related detail is available, and baseline data on the project affected environment and social systems has not yet been gathered other than from the initial site visit. This information requires input from the specialist assessments, which are only undertaken at the completion of the Scoping Phase and therefore a definitive assessment of project specific impacts cannot be completed at this stage. The environmental and social consequences of the project and alternatives will be discussed more broadly than what is required in the EIR.

Batach Holdings has developed a revised rating scale for the Scoping Phase of the EIA process in accordance with the requirement outlined in Appendix 2 of the EIA Regulations 2014 (as amended) (Table 10.1). This scale takes into consideration the following variables:

- Extent
- Duration
- Intensity/ Magnitude
- Probability

The specialists have a different approach when conducting their studies and obtain information; however, they will be required to provide their reports to the EAP in a specific layout and structure, so that a uniform specialist report volume can be produced. To ensure a direct comparison between various specialist studies, a standard rating scale has been defined and will be used to assess and quantify the identified impacts. This is necessary since impacts have a number of parameters that need to be assessed.

The identification of suitable management and mitigation measures will be identified during the EIA and included in the EMPr together with the MHI. The final Environmental Impact Report will be submitted in hard copy and electronic version (CD) and will include the following: The assessment will consider impacts arising from the proposed activities of the project both before and after the implementation of appropriate mitigation measures as follows:-

10.2. Assessment Variables

Table 10.1

CRITERIA	DESCTRIPTION			
EXTENT	**National (4)** The whole of South Africa	**Regional (3)** Provincial and parts of neighboring provinces	**Local (2)** Within a radius of 2 km of the construction site	**Site (1)** Within the construction site
DURATION	**Permanent (4)** Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient	**Long-term (3)** The impact will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter. The only class of impact which will be non-transitory	**Medium-term (2)** The impact will last for the period of the construction phase, where after it will be entirely negated	**Short-term (1)** The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase
INTENSITY/ MAGNITUDE	**Very High (4)** Natural, cultural and social functions and processes are altered to extent that they permanently cease	**High (3)** Natural, cultural and social functions and processes are altered to extent that they temporarily cease	**Moderate (2)** Affected environment is altered, but natural, cultural and social functions and processes continue albeit in a modified way	**Low (1)** Impact affects the environment in such a way that natural, cultural and social functions and processes are not affected
PROBABILITY OF OCCURRENCE	**Definite (4)** Impact will certainly Occur	**Highly Probable (3)** Most likely that the impact will occur	**Possible (2)** The impact may occur	**Improbable** (1) Likelihood of the impact materializing is very low

Significance is determined through a synthesis of impact characteristics. Significance is also an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.

10.3. Scope of Issues

Table 10.1 Technical Scope of Issues identified

During all phases of the Caustic Soda development – Receiving Environment								
THEME	**POTENTIAL ISSUES**	**SOURCE OF ISSUE**	**POTENTIAL RECEPTORS**	**PHASE**				**ASSESSMENT ACTIONS**
				PLANNING & DESIGN	**CONSTRUCTION**	**OPERATIONAL**	**DECOMISSIONING**	
Environmental Policy	Legal and Policy Compliance	• Licensing & Authorisations • Permitting	• AFC	X		X	X	*Obtaining Authorisation from relevant Competent Authorities*
Built Environment	Site Establishment	• Siting & placement • Footprint creep	• Surrounding Environment • Neighbouring community	X		X	X	*General EIA*
	Associated Infrastructure	• Siting and placement • Earthworks • Economic feasibility of associated infrastructure	• Surrounding Environment • Neighbouring community	X		X	X	*General EIA*
	Material Stockpiling	• Siting & placement • Runoff & sedimentation	• Surrounding Environment	X	X	X		*General EIA*

During all phases of the Caustic Soda development – Receiving Environment								
THEME	**POTENTIAL ISSUES**	**SOURCE OF ISSUE**	**POTENTIAL RECEPTORS**	**PHASE**				**ASSESSMENT ACTIONS**
				PLANNING & DESIGN	**CONSTRUCTION**	**OPERATIONAL**	**DECOMISSIONING**	
	Storm water management	• Inappropriate planning & maintenance	• Surrounding Environment	X	X	X		*General EIA*
	Waste Management	• Construction rubble and litter • Sewage • Effluent	• Surrounding Environment • Neighbouring community	X		X	X	*General EIA*
	Water Supply	Tie-ins by Landowenr • Water supply constraints	Neighbouring community		X			*General EIA*
Socio-economic	Job creation	Construction activities	Neighbouring community		X	X		*General EIA*
	Visual impacts	Sense of Place	Neighbouring community					*General EIA*
	Dust	• Earthworks • Road traffic	Neighbouring community					*General EIA*
	Noise Pollution	• Earthworks	Neighbouring community					*General EIA*

During all phases of the Caustic Soda development – Receiving Environment								
THEME	**POTENTIAL ISSUES**	**SOURCE OF ISSUE**	**POTENTIAL RECEPTORS**	**PHASE**				**ASSESSMENT ACTIONS**
				PLANNING & DESIGN	**CONSTRUCTION**	**OPERATIONAL**	**DECOMISSIONING**	
		• Road traffic • Construction & operational activities						
	Economic feasibility of the proposed development	• Economic feasibility of the capital and operational costs of the proposed development	Neighbouring community		X	X		*General EIA*
Health & Safety	Hazardous Substances	• Storage and use (cement, tar, fuel, bitumen & oil)	• Surrounding environment • Neighbouring community	X	X	X		*General EIA*
	Onsite Sanitation & Ablutions	• Inadequate facilities on site	• Labourers		X			*General EIA*
	Crime & Theft	• Site security • Damage to property	• Labourers • AFC		X	X		*General EIA*
	Traffic	Congestion	Neighbouring community		X	X		*General EIA*

During all phases of the Caustic Soda development – Receiving Environment								
THEME	**POTENTIAL ISSUES**	**SOURCE OF ISSUE**	**POTENTIAL RECEPTORS**	**PHASE**				**ASSESSMENT ACTIONS**
				PLANNING & DESIGN	**CONSTRUCTION**	**OPERATIONAL**	**DECOMISSIONING**	
		• Construction & operational activities	• Neighbouring community					
Heritage and Palaeontological Environment	Loss of cultural, heritage and paleontological resources	• Siting and placement • Earthworks	• Heritage sites and Palaeontological findings	X	X			*General EIA*
Rehabilitation & Maintenance	Lack of rehabilitation & maintenance	• Inadequate planning and provisioning • Lack of maintenance of infrastructure	• Surrounding environment • Neighbouring community	X	X		X	*General EIA*

10.4. Planning and Design of the proposed development

Table 10.2 Planning Stag

PLANNING & DESIGN PHASE - Potential impacts identified			
Issue	**Impact**	**Significance**	***Further Assessment***
Legal and Policy Compliance	During the Planning and Design Phase, failure to adhere to existing policies and legal obligations could lead to the project conflicting with local, provincial and national policies, legislation, etc. This could result in lack of institutional support for the project, overall project failure and undue disturbance to the natural environment.	HIGH NEGATIVE	General EIA
Siting/location of facility structures and associated infrastructure	During the Planning and Design Phase, planning and placement of structures and associated infrastructure (e.g. close to drainage systems) could lead to the damage and degradation of natural areas as well as to the structures themselves. Should planning not take into consideration their location/s.	HIGH NEGATIVE	General EIA
Storm water management	During the Planning and Design Phase, inadequate stormwater management designs for the access road and layout of the facility itself could result in erosion due to unmanaged runoff.	MODERATE NEGATIVE	General EIA
Waste Management	During the Planning and Design Phase, inadequate planning and provisions for general waste removal during all phases of the development, as well as the treatment and disposal of all waste itself, may result in the pollution to the surrounding environment. In addition, failure by the African Chemicals provision for alternatives for waste will result in the development becoming fatally flawed.	HIGH NEGATIVE	General EIA
Water Supply	During the Planning and Design Phase, failure by the African Chemicals to reach an agreement with the landowner in order to create a surplus supply for the proposed development will result in the development becoming fatally flawed.	HIGH NEGATIVE	General EIA / Water Use License Application
Water-tie ins			
Boreholes			

10.5. Construction Phase of the proposed development.

Table 10.3 Construction Stage

CONSTRUCTION PHASE - Potential impacts identified			
Issue	**Impact**	**Significance**	**Further Assessment**
Legal and Policy Compliance	During the Construction Phase, failure to adhere to existing policies, regulations, permits, authorisations and legal obligations could lead to the project conflicting with local, provincial and national policies, legislation, etc. This could result in lack of institutional support for the project, overall project failure and undue disturbance to the natural environment.	HIGH NEGATIVE	General EIA
Site Establishment, and Material Stockpiling	During the Construction Phase, inappropriate siting of site camp and routing of infrastructure could lead to damage and degradation of the environment. Inappropriate placement of material may lead to disturbance to the environment	HIGH NEGATIVE	General EIA
Storm Water	During the Construction Phase, the implementation of inadequate stormwater management measures for the Caustic soda facility and its infrastructure may result in erosion due to uncontrolled runoff.	MODERATE NEGATIVE	General EIA
Waste Management	During the Construction Phase, litter on site may attract vermin, detract from the visual appeal of the area, and pollute the surrounding areas. Construction rubble left onsite could pollute the area and encourage the growth of opportunistic alien vegetation	MODERATE NEGATIVE	General EIA
Water Supply	During the Construction Phase, inadequate provisions made for construction related water requirements may result in the unlawful abstraction of water from a water source, impacting on existing water use and potentially jeopardizing the proposed development.	HIGH NEGATIVE	General EIA / Water Use License Application
Erosion Management	During the Construction Phase, inadequate provision for the management of erosion could lead to erosion of the study area and surrounding areas.	MODERATE NEGATIVE	General EIA
Job creation	During the Construction Phase, the proposed development will create temporary employment opportunities	BENEFICIAL	General EIA
Economic feasibility of proposed development	During the Construction Phase, high construction costs required for alternatives put forward may negatively affect the overall feasibility and sustainability of the proposed development, resulting in project failure.	HIGH NEGATIVE	General EIA
Dust pollution	During the Construction Phase, dust (air) pollution caused by grading and levelling exposed land can cause a nuisance to the neighbouring community and local residents	LOW NEGATIVE	General EIA
Noise Pollution	During the Construction Phase, noise pollution could potentially be a nuisance to neighbouring residential areas.	LOW NEGATIVE	General EIA

Handling, transport and use of hazardous substances	During the Construction Phase, inappropriate transportation and storage of fuel on site could result in pollution of surface and groundwater in the event of a fuel spillage.	HIGH NEGATIVE	General EIA
	During the Construction Phase, spillage of any hazardous substances such as fuel, chemicals, paint, etc. can lead to the contamination of surface and groundwater.	HIGH NEGATIVE	General EIA
Onsite Sanitation & Ablutions	During the Construction Phase, failure to provide adequate onsite sanitation for labourers may result in runoff transferring contaminants into the surrounding environment.	MODERATE NEGATIVE	General EIA
Crime & Theft	During the Construction phase, inadequate security measures, including access control to the site camp, etc. may result in the theft of and damage to property.	LOW NEGATIVE	General EIA
Traffic	During the Construction phase, increased flow of construction and vehicular traffic through neighbouring community areas may present a safety risk to the local community.	LOW NEGATIVE	General EIA
Loss of cultural, heritage and paleontological resources	During the Construction Phase, the heritage sites and palaeontological findings could be damaged or destroyed by construction activities during the construction phase.	MODERATE NEGATIVE	General EIA
Lack of rehabilitation & maintenance	During the Construction Phase, inadequate provision and implementation of rehabilitation measures and maintenance of infrastructure may lead to the degradation of the surrounding environment.	MODERATE NEGATIVE	General EIA

10.6. Operational Phase of the proposed development

Table 10.4 Operational Stage

OPERATIONAL PHASE - Potential impacts identified			
Issues	**Impact**	**Significance**	**Further Assessment**
Legal and Policy Compliance	During the Operational Phase, failure to adhere to existing policies, regulations, permits, authorisations and legal obligations could lead to the project conflicting with local, provincial and national policies, legislation, etc. This could result in lack of institutional support for the project, overall project failure and undue disturbance to the natural environment.	HIGH NEGATIVE	General EIA
Site infrastructure	During the Operational Phase, lack of maintenance of infrastructure, particularly associated with waste, may result in the degradation of the surrounding environment.	HIGH NEGATIVE	General EIA
Stormwater management	During the Operation Phase, inappropriate routing of stormwater will lead to erosion and sedimentation.	MODERATE NEGATIVE	General EIA

Waste Management	During the Operation Phase, inadequate disposal of effluent waste generated from the caustic soda facility itself, office litter, papers and bags from caustic may result in surface and groundwater pollution to the surrounding environment.	HIGH NEGATIVE	General EIA
Water Supply	During the Operational Phase, lack of provisions made for the water requirements of the Caustic plant may result in water supply constraints and lack of production	MODERATE NEGATIVE	General EIA / Water Use License Application
Erosion Management	During the Operational Phase, inadequate provision for the management of erosion could lead to erosion of the proposed area and surrounding areas.	MODERATE NEGATIVE	General EIA
Job creation	During the Operational Phase, the proposed development will create permanent employment opportunities during the lifespan of the development.	BENEFICIAL	General EIA
Economic feasibility of proposed development	During the Operational Phase, high running costs may negatively affect the overall feasibility and sustainability of the proposed development, resulting in project failure.	HIGH NEGATIVE	General EIA
Dust Pollution	During the Operational Phase, dust and any emissions generated by on site activities may generate nuisance dust and air pollution to the neighbouring community.	LOW NEGATIVE	General EIA
Noise Pollution	During the Operational Phase, noise generated by on site activities may be of a nuisance to the neighbouring community.	LOW NEGATIVE	General EIA
Hazardous substances	During the Operational Phase, inappropriate storage and handling of caustic soda and hazardous substances required for the operation and day to day site activities could lead to the contamination of surface and groundwater.	HIGH NEGATIVE	General EIA
Onsite Sanitation & Ablutions	During the Operational Phase, inadequate provision and management of ablutions for labourers may result in runoff transferring contaminants into the surrounding environment.	MODERATE NEGATIVE	General EIA
Traffic	During the Operational Phase, increased flow of vehicular traffic through neighbouring community areas may present a safety risk to the local community.	LOW NEGATIVE	General EIA
Loss of cultural, heritage and paleontological resources	During the Operational Phase, inadequate consideration for the location of identified sites and palaeontological findings could result in the damage or destruction by operational activities.	MODERATE NEGATIVE	General EIA
Lack of rehabilitation & maintenance	During the Operational Phase, inadequate provision and implementation of rehabilitation measures and maintenance of infrastructure may lead to the degradation of the surrounding environment.	MODERATE NEGATIVE	General EIA

10.7. Decommissioning Phase of the proposed development

Table 10.5 Decommissioning Stage

Decommissioning Phase - Potential impacts identified			
Issue	**Impact**	**Significance**	**Further Assessment**
Legal and Policy Compliance	During the Decommissioning Phase, failure to adhere to existing policies, regulations, permits, authorizations and legal obligations could lead to the project conflicting with local, provincial and national policies, legislation, etc. This could result in lack of institutional support for the project, overall project failure and undue disturbance to the natural environment.	HIGH NEGATIVE	General EIA
Materials Disposal	During the Decommissioning Phase, the closure, removal and disposal of all facility used during site establishment that may result in the disturbance to the surrounding environments.	HIGH NEGATIVE	General EIA
Waste Management	During the Decommissioning Phase, general facility rubble & litter left on site may attract vermin, detract from the visual appeal of the area, and pollute the surrounding areas. Construction rubble left onsite could pollute the area and encourage the growth of opportunistic alien vegetation.	MODERATE NEGATIVE	General EIA
Job creation	During the Decommissioning Phase, the proposed development will create temporary employment opportunities.	BENEFICIAL	General EIA
Dust Pollution	During the Decommissioning Phase, dust generated by on site activities may generate nuisance dust to the neighbouring community.	LOW NEGATIVE	General EIA
Noise Pollution	During the Decommissioning Phase, noise generated by on site activities may be of a nuisance to the neighbouring community.	LOW NEGATIVE	General EIA
Hazardous substances	During the Decommissioning Phase, inappropriate storage and handling of hazardous substances use during decommissioning and removed from site could lead to the contamination of surface and groundwater.	MODERATE NEGATIVE	General EIA
Onsite Sanitation & Ablutions	During the Decommissioning Phase, inadequate provision and management of ablutions for labourers may result in runoff transferring contaminants into the surrounding environment.	MODERATE NEGATIVE	General EIA
Traffic	During the Decommissioning Phase, increased flow of vehicular traffic through neighboring community areas may present a safety risk to the local community.	LOW NEGATIVE	General EIA
Lack of rehabilitation & maintenance	During the Decommissioning Phase, inadequate provision and implementation of rehabilitation measures may lead to the degradation of the surrounding environment.	MODERATE NEGATIVE	General EIA

11. Plan of Study for EIA

In accordance with Appendix 2, Section 2 (1), of the EIA Regulations 2014 (as amended) a "scoping report must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process, and must include—

(h) a plan of study for undertaking the environmental impact assessment process to be undertaken, including—

(i) a description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity;
(ii) a description of the aspects to be assessed as part of the environmental impact assessment process;
(iii) aspects to be assessed by specialists;
(iv) a description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists;
(v) a description of the proposed method of assessing duration and significance;
(vi) an indication of the stages at which the competent authority will be consulted;
(vii) particulars of the public participation process that will be conducted during the environmental impact assessment process; and
(viii) a description of the tasks that will be undertaken as part of the environmental impact assessment process;
(ix) identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

In line with the above-mentioned legislative requirements, this chapter sets out the reviewed **Plan of Study** for the EIA phase of the assessment. Consultation with GDARD will be on-going throughout this EIA. However, it is anticipated that GDARD and relevant authority will provide relevant comment with respect to the adequacy of this Plan of Study for the EIA, as it informs the content of the EIR.

11.1. EIA phase

The EIA phase has four key elements, namely: -

- **Specialist Studies:** After the authority review of the Final Scoping Report, additional specialist studies may be requested by the authorities, and these will be undertaken during the initial phase of the EIA. Appropriately, qualified and experienced specialists will be appointed to undertake the various assessments. Specialists will gather baseline information relevant to the study being undertaken and will assess impacts associated with the development. Specialists will also make recommendations to mitigate negative impacts and enhance benefits. The resulting information will be incorporated into the Environmental Impact Report (EIR), whilst the full specialist reports will be attached to the EIR as a Specialist study report.

- **Environmental Impact Report (EIR):** The main purpose of this report is to gather and all environmental information and evaluate the overall environmental impacts associated with the development, to consider mitigation measures and alternative options, and make recommendations in choosing the best development alternative. The EIR also identifies mitigation measures and management recommendations to minimise negative impacts and enhance benefits. The EIR and associated specialist reports are made available for public and authority review and comment. The availability of the report will be advertised in one provincial and/or one local newspaper and the report will also be made available for public review in easily accessible locations.

- **Comments Report:** The comments report (or an Issues & Response) provides a detailed record of comments, issues and concerns raised by I&APs and the authorities during the review period, and also provides relevant responses to these comments.

- **Environmental Management Programme (EMPr):** The EMPr provides guidelines to the project proponent and the technical team on how best to implement the mitigation measures and management recommendations outlined in the EIR during the construction and operational phase. In addition to the above, the Public Participation Process (PPP) commenced during the Scoping Phase will be continued, during which I&APs are afforded further opportunities to raise their issues, concerns and comments regarding the proposed project. It is possible that some of the project details may have changed in response to the preliminary findings of the Scoping Report, and as a result of design changes made by the project proponent. I&APs and key stakeholders are

given the opportunity to review the Draft EIR before it is submitted to the authorities for consideration. Comments on the Draft EIR received from I&APs are included and addressed in the submitted EIR.

- **Major Hazards Installations Report**: The MHI provides the guidelines to the project proponent and the technology partner and the technical team on how best to implement mitigation measures related to health and safety. MHI risk assessment is to be undertaken for installations which have on the premises a quantity of a substance which can pose a significant risk to the health and safety of employees and the public. The risk assessment undertaken during the EIA would be updated to include recalculations for the changes indicated by the Environmental Authorisation and would include all the required elements of the MHI Regulations not completed in the EIA risk assessment, such as evaluation of emergency planning.

11.2. Alternatives

The fundamental alternatives outlined in Chapter 8 of this report will be expanded upon in the EIR. In summary, the following alternatives will be further assessed:

- Location Alternative – the proposed location alternative will be the only alternative assessed;
- Waste Discharge Alternative – Municipal sewer reticulation connection;
- Bulk service infrastructure - routing alternatives will be assessed further during the EIA phase of this assessment based on the outcome of which water supply and waste discharge alternatives are put forward; and
- No-Go Option - (status quo - land to remain undeveloped).

11.3. Specialist Studies

Several environmental issues, as identified in Chapter 9, will be further assessed during the EIA phase. Additional impacts might be raised by I&APs and/or the EAP, and these will also be assessed in order to;-

- Identify any rehabilitation measures that can be reasonably applied with the completion of the construction works.
- Broadly describe the implications of a 'No-Go' option where the proposals are not established.
- To broadly comment on the cumulative impacts associated with the development.
- Confirm if there are any outright fatal flaws to the establishment of the development.
- Describe any assumptions made and any uncertainties or gaps in knowledge.

- Any recommendations on a way forward in terms of future specialist inputs required should also be made.

A Heritage & Paleontological Impact Assessment has not been proposed to be included during the EIA phase, as a walkthrough by a suitably qualified individual will be required prior to construction to demarcate any existing sensitive heritage, cultural or paleontological findings on site. This will be made a condition in the EMPr and these areas (if identified) will be deemed 'no-go' areas.

11.4. Assessment Methodology - Criteria used for the rating of Impacts

TABLE 12.1: CRITERIA FOR THE RATING OF CLASSIFIED IMPACTS

Table 11.1 Rating Criteria

Low impact (4 -6 points)	A low impact has no permanent impact of significance. Mitigation measures are feasible and are readily instituted as part of a standing design, construction or operating procedure.
Medium impact (7 -9 points)	Mitigation is possible with additional design and construction inputs.
High impact (10 -12 points)	The design of the site may be affected. Mitigation and possible remediation are needed during the construction and/or operational phases. The effects of the impact may affect the broader environment.
Very high impact (13 - 20 points)	Permanent and important impacts. The design of the site may be affected. Intensive remediation is needed during construction and/or operational phases. Any activity which results in a "very high impact" is likely to be a fatal flaw
Status	Denotes the perceived effect of the impact on the affected area.
Positive (+)	Beneficial impact.
Negative (-)	Deleterious or adverse impact.
Neutral (/)	Impact is neither beneficial nor adverse.
It is important to note that the status of an impact is assigned based on the status quo – i.e. should the project not proceed. Therefore not all negative impacts are equally significant.	

The suitability and feasibility of all proposed mitigation measures is included in the assessment of significant impacts. This was achieved through the comparison of the significance of the impact before and after the proposed mitigation measure is implemented. Mitigation measures identified as necessary will be included

in an EMPr. Each criterion is ranked to determine the overall effect of an activity (Table 11.2). The criterion is then considered in two categories namely the **effect of the activity and the likelihood** of the impact in order to determine its overall significance. The overall significance is either negative or positive.

The environmental significance scale is an attempt to evaluate the importance of a particular impact (Table 11.2). This evaluation needs to be undertaken in the relevant context, as an impact can either be ecological or social, or both. The evaluation of the significance of an impact relies heavily on the values of the person making the judgment. For this reason, impacts of especially a social nature need to reflect the values of the affected society.

Negative impacts that are ranked as being of "**VERY HIGH"** and "**HIGH**" significance will be investigated further to determine how the impact can be minimised or what alternative activities or mitigation measures can be implemented. These impacts may also assist decision makers (i.e. several HIGH negative impacts may bring about a negative decision). For impacts identified as having a negative impact of "MODERATE" significance, it is standard practice to investigate alternate activities and/or mitigation measures. The most effective and practical mitigations measures will then be proposed. For impacts ranked as "LOW" significance, no investigations or alternatives will be considered. Possible management measures will be investigated to ensure that the impacts remain of low significance.

Table 11.2 - **Overall effect of an activity**

Significance Rate		Description
LOW –	LOW +	An acceptable impact for which mitigation is desirable but not essential. The impact by itself is insufficient even in combination with other low impacts to prevent the development being approved. These impacts will result in either positive or negative medium to short term effects on the social and/or natural environment.
MODERATE –	MODERATE +	An important impact which requires mitigation. The impact is insufficient by itself to prevent the implementation of the project but which in conjunction with other impacts may prevent its implementation. These impacts will usually result in either a positive or negative medium to long-term effect on the social and/or natural environment.
HIGH –	HIGH +	A serious impact, if not mitigated, may prevent the implementation of the project (if it is a negative impact). These impacts would be considered by society as constituting a major and usually a long-term change to the (natural &/or social) environment and result in severe effects or beneficial effects.
VERY HIGH –	VERY HIGH +	A very serious impact which, if negative, may be sufficient by itself to prevent implementation of the project. The impact may result in permanent change. Very often these impacts are immitigable and usually result in very severe effects, or very beneficial effects.

All feasible alternatives and the "no-go option" will be assessed in order to evaluate the significance of the impacts (prior to mitigation) and the residual impacts after mitigation measures are taken into account. The reason(s) for the judgement will be provided where necessary. All impacts must have a "cause and comment", a significance rating before mitigation, after mitigation and for the no-go option. Impacts should also indicate applicable mitigation measures/recommendations to reduce the impact significance.

11.5. Public Participation Process

I&APs and key stakeholders are given the opportunity to review the Draft EIR before it is submitted to the authorities for consideration. Comments received on the Draft EIR from I&APs will be included and addressed in the Final EIR Report.

11.6. Identification of and Consultation with Key Stakeholders

I&APs and Key Stakeholders will be identified during the Scoping Phase of the project. The identification and engagement if necessary, of I&APs and Key Stakeholders will continue through into the EIA phase of the project as the public participation process is a continuous process that runs throughout the duration of an environmental investigation.

11.7. Interested and Affected Parties Database

All I&AP information (including contact details), together with dates and details of consultations and a record of all issues raised, is recorded within a comprehensive database of I&APs. This database will be updated on an on-going basis throughout the project and will act as a record of the communication and involvement process.

11.8. Advertisements

In terms of the EIA Regulations 2014 (as amended), the availability of the Draft EIR will be advertised in the local newspapers such as Kempton Park News and Daily Dispatch newspaper. The primary aim of this advertisement will be to ensure that the widest group of I&APs possible are informed of the project. Other advertisements to be placed during the course of the EIA phase of the project will relate to the availability of reports for public review, the dates of public meetings, as well as the advertising of the environmental authorisation/decision.

11.9. Public Review of the Draft Environmental Impact Assessment Report

The Draft EIR will be made available for a thirty (30) day public review period. The availability of the Draft EIR will be advertised and all registered I&APs will be notified of the availability of the Draft EIR for public comment. In addition (and if required), a public meeting will be held during this public review period.

11.10. Public Meetings

The purpose of public meetings is to provide an appropriate format to enable I&APs to raise concerns related to the proposed project. The intention is that I&APs are afforded the opportunity of interacting on a one-on-one basis with the technical and planning representatives of the developer as well as the environmental team. I&APs will be encouraged to complete an attendance register and a comment and registration form to assist I&APs in raising concerns and general views on the project.

11.11. Interaction With GDARD, And Provincial Departments and Municipalities

Interaction with GDARD and the other Authorities will continue into the EIA Phase of the project. Further interaction will occur in the following manner:

- Submission of the Final Environmental Impact (FEIR);
- A consultation meeting with various stakeholders as appropriate, to discuss the findings of the FSR and the issues identified for consideration in the EIA;
- Attendance at meetings in consideration of the Covid-19 regulations; and
- Submission of the Final EIA report, following a public review period. .

11.12. Notification of the Decision of the Authorities

An advertisement will be placed in the newspaper to notify the public of the Competent Authority's (CA) decision on the Final EIR. In addition, the advertisement will inform the public of how to access a copy of the Environmental Authorisation (EA) and it will draw their attention to their right to appeal the decision and set out the appeal procedures to be followed.

11.13. Structure of the Proposed EIR

To avoid the EIA being excessively long and cumbersome, whilst meeting the content requirements specified in the EIA Regulations 2014 (as amended), the final reports will be divided into a number of volumes indicated in the table below.

Table 8.3 Report structure (Volumes)

Volume Number	Report	Contents
1	**Scoping Report (FSR)**	As per the Final Scoping Report.
2	**Environmental Impact Assessment Report (EIA Report) (FEIR)**	• Introduction: Detail of the environmental assessment practitioner who compiled the report and expertise of the EAP to carry out an environmental impact assessment • Description of the Project: A description of the property on which the activity is to be undertaken, the location of the activity on the property and a description of the types of activities that are proposed for the development. • Description of the Affected Environment: The natural environment, socio-economic environment and the legal, policy and planning setting. • The Public Participation Process: Steps undertaken in order to notify and involve I&APs, advertisements, meetings held, issues and comments. • Summary of Issues and Response: Summary of comments and issues raised by I&APs and responses to the issues. • Summary of Specialist Reports: Summary of the findings and recommendations of all specialist studies. • Alternatives Considered: Description of all alternatives considered in the EIA, initial screening of alternatives, description and comparative assessment of all alternatives identified during the EIA. • The Significance of Potential Environmental Impacts: The methodology used to determine the significance of environmental impacts, the impacts on the natural environment and the impacts on the socio-economic environment. • Environmental Impact Statement: A summary of the key findings of the EIA and a comparative assessment of the positive and negative implications of the proposed activity and identified alternatives. • Conclusions: An opinion as to whether the activity should or should not be authorised and any conditions that should be made in respect to any form of authorisation.
3	Specialist Studies	This volume will be a compilation of all the specialist studies required to be undertaken in the EIA PHASE and recommendations

Volume Number	Report	Contents
4	Environmental Management Programme Report (EMPr)	• Introduction: The details of the EAP who prepared the EMPr, the expertise of the EAP who prepared the EMPr and a detailed description of the aspects of the activity covered by the EMPr. • Mitigation Measures and Actions: Planning and design, pre-construction and construction activities and operational phase actions to be undertaken. • Responsibilities: Persons responsible and time periods for implementation. • Monitoring Programme
	MHI	The details of the specialist who prepared the MHI, the expertise of the speciaist who prepared the MHI and a detailed description of the aspects of the activity covered by the MHI. Mitigation Measures and Actions: Planning and design, pre-construction and construction activities and operational phase actions to be undertaken.

All issues, comments and concerns raised during the public participation process of the EIA Process will be compiled into an Issues and response, incorporated, and submitted as part of the Final EIR

11.14. Public Input

Comments and concerns from all stakeholders, interested and affected parties will be gathered, assessed and incorporated into the EIR. Public meetings and information sessions are to be organized where all concerns will be discussed and sound conclusions reached. Upon completion of the draft EIR, the document is to be put out for public review for a period of 40 days. Further comments received will be addressed and incorporated into the final EIR that will be submitted to the authorities for decision making.

12. Public Participation Process

This chapter will meet the requirements of Item 2.(1)(g)(ii) in Appendix 2 of GN 326, by providing details of the public participation process undertaken in terms of Regulation 41 of the Amendments to the 2014 EIA Regulations (GN 326, 07 April 2017) and include copies of the supporting documents and inputs.
The purpose of the public participation process is to ensure that the issues, inputs and concerns of interested and affected parties (I&APs) are taken into account during the decision-making process.

This requires the identification of I&APs (including authorities, technical specialists and the public), communication of the process and findings to these I&APs and the facilitation of their input and comment on the process and environmental impacts, including issues and alternatives that are to be investigated. A successful public participation process is one that is inclusive, actively engages the public and provides ample opportunity for the public to participate in the application process.

Batach Holdings has taken into cognisance the requirements for public participation in terms of the EIA Regulations (GN 326, 07 April 2017) and the Guideline on Public Participation in the EIA Process (GN 807, 10 October 2012) and will strived to ensure that the public participation principles are upheld. Refer to **Table 12-1 below,** which outlines how the public participation was undertaken for this project, which meets the requirements of Chapter 6 of the 2014 EIA Regulations.

12.1.1. Limitations Associated with Public Participation Process

Certain limitations are found with any public participation process. The most important are:

- I&APs not registering and therefore not partaking in public events and the public participation process;
- I&AP not attending public events relating to the proposed project;
- I&AP not receiving information timeously and commenting timeously;
- Lengthy time associated with identifying and contacting all I&AP in a study area.
- I&APs focusing on issues that do not relate to the proposed project.

12.2. Objectives of Public Participation

This report provides a detailed account of the Public Participation Process (PPP) conducted during the Scoping Phase of the project and will outline the way forward for the process.

The aim of this report is three-fold:

- To provide a description of the PPP conducted during the Scoping Phase;
- To provide a list of comments and issues raised throughout the scoping phase;
- To outline the way forward;

12.3. Legal Requirements

Public Participation Process during the EIA process for any development is a legislative requirement for environmental authorization. For this project in order to comply with the stipulations in the National Environmental Management Act, 1998 (Act No. 107 of 1998); EIA Regulations, 2014 GNR. No 326, Chapter 6 [Sections 40 – 44] activities undertaken as part of public involvement were as follows:

- Section 40 –all registered Interested and Affected Parties (I&APs) were given 30 days to submit comments on generated reports
- Section 41 – the person conducting a PPP must give notice to all I&APs by fixing notice boards, giving written notice and placing advertisements in local newspapers and provincial/national newspapers.
- Section 42 – open and continuously maintain a register of I&APs
- Section 43 – all registered I&APs are entitled to comment on all reports and the person conducting the PPP must ensure that comments raised are brought to the attention of the proponent or applicant

Section 44 – the person conducting the PPP must ensure that comments of I&APs and records of meetings are recorded and responded to. The comments and responses report must be attached to the reports that are submitted to the competent authority

12.4. Overview of Consultation Process

Role players and their duties in Public Participation

12.5. Interested Parties to the Proposed Project

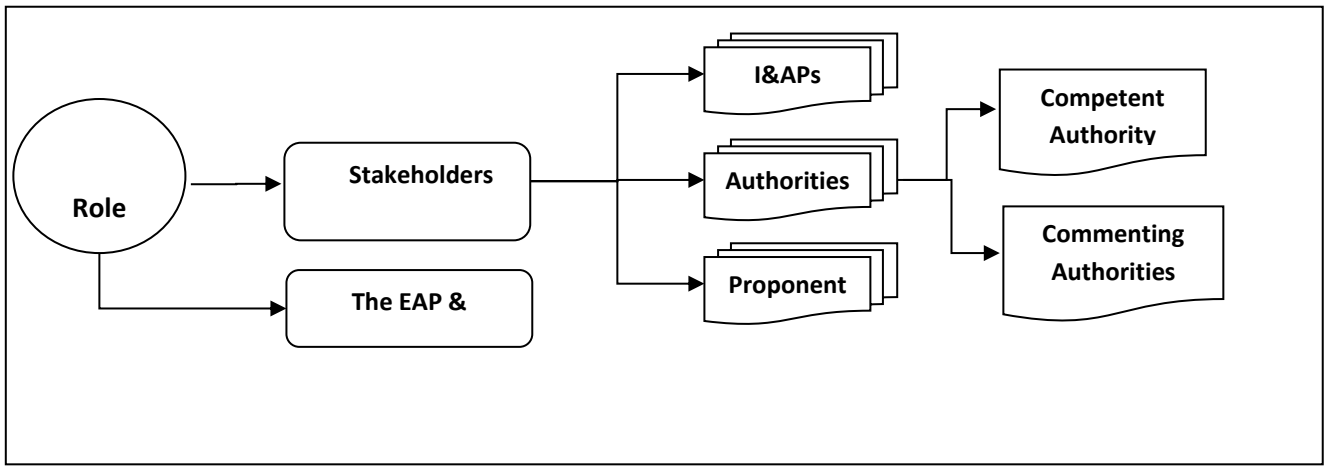
All stakeholders that might be affected or have interest in the proposed project must be afforded an opportunity to participate in the impact assessment of the project and they must each realize that they have responsibilities as follows (but not limited to this):

12.6. Role players in the EIA process. –

12.6.1. The Proponent:

- Provide adequate information to the Authorities, the EAP and to I&APs
- Adopt an open and transparent attitude during the interaction with I&APs
- Understand that the EAP acts independently and objectively in order to improve communication between I&APs and the Proponent

- Have empathy and patience with I&APs who do not possess the relevant background knowledge
- Avoid raising unrealistic expectations



12.6.2. Interested and Affected Parties (I&AP's):

- Register as an I&AP and advise the EAP about other I&APs who should be consulted
- Engage according to the agreed procedures and time frames
- Representatives of landowners and other organizations must ensure that their views are of their members and not their own
- Avoid making unrealistic demands and provide appropriate information
- Assist in identifying and prioritizing issues that need to be investigated and verify that issues have been recorded and considered

12.6.3. The EAP/PP Team:

- Communicate with all I&APs in order to provide them with information to enable them to participate in a meaningful way
- Organize all the required PPP activities
- Record and process the inputs, comments and issues received from I&APs
- Ensure that I&APs inputs are integrated into the reports which are communicated to the competent authority
- Avoid raising unrealistic expectations and undue fears

12.6.4. Public Participation Team

For the Environmental Impact Assessment (EIA) process for this project, Batach Holdings is the lead consultant/EAP and is supported by Rotondwa Environmental Services and Consulting for the Public Participation Process (PPP). A team of Public Participation Practitioners was assembled taking into consideration the geographic nature/area of the receiving environment, process needs of I&APs (language; organizational structures etc.) and the technical nature of the project. The PP Team is composed of members as indicated in the table below:

12.6.5. Summary of the Public Participation Process

The table below summarises the products and services provided by the public participation Team during the Scoping Phase. This information relates to activities undertaken during the Scoping phase.

Table 22.1: Summary of the activities undertaken

DATE	ACTIVITY	PARTICIPANTS	PRODUCTS
On going	Identified Interested and Affected Parties and listed them in the database	Consultants and the public	Stakeholder and I&APs Database **(See Appendix 1)**
15/04/2021	Officially announced the project through the newspaper's advertisements (two local newspapers)	Project Proponent (African Chemicals), Consultants and general public	Newspapers advertisement **(See Appendix 2)**
17/04/2021	Distribution of PP documents (BID, Comment Sheet and Study Area Map)	Consultants and the Public	Information documents distributed **(See Appendix 3)**
24/05/2021	Placement of posters in the study area	PP Consultant	Posters **(See Appendix 4)**
11/06/2021	Meeting with ward councillor	PP Consultant and Ward Councillor	Registers and Minutes **(See Appendix 5)**
03/06/2021	Announcement of draft scoping report via emails	PP Consultant	Emailed letters **(See Appendix 6)**
03/06/2021	Announcement of draft scoping report via newspaper advertisement	PP Consultant	Newspaper advertisement **(See Appendix 7)**
03/06/2021	Delivery of draft scoping report to local library	PP Consultant	Register **(See Appendix 8)**
03/06/2021	Meetings invitations	PP Consultant	Emails, minutes and Registers

			(See Appendix 9)
24 & 29/06/2021	Reminder to comment	PP Consultant	Emails **(See Appendix 10)**
Scoping Phase (April, June & July 2021)	Comments Received	Stakeholders, I&APs	Comments **(See Appendix 11)**
Scoping Phase (April, June & July 2021)	Comments and Responses Report (CRR)	EAP and PP Team	CRR **(See Chapter 13)**

12.7. Activities undertaken before the placement of draft scoping report.

12.7.1. Stakeholder Identification

EIA Regulations, 2014 GNR. No 982, Chapter 6 [Section 42 – open and continuously maintain a register of I&APs]

The databases of registered stakeholders consists of:

- National, Provincial and Local Government
- Landowner
- Non-Governmental Organisations
- Business and industry

(Refer to Appendix 1 for the I&AP database).

12.7.2. Site Visits

Mr Lesley Thathana undertook an inspection site visit to the area and noted that the project falls within the jurisdiction of Ekurhuleni Metropolitan and it covers ward 13 and part of ward 12. The reason for the site visit was:

- To develop the preliminary understanding of the social context (representative structures; language; communication media, etc.)
- To identify points where information could be made accessible to the local communities (venues for meetings and public places where information documents could be placed)
- To identify those parties or structures that may be interested in and/or affected by the proposed developments.

12.7.3. Announcement of Project through media advertisement

Advertisements were placed in one national and two local newspapers inviting I&APs to register as I&APs. (Refer to Appendix 2 for a copy of the advertisements). The following newspapers were used:

Newspaper	Date	Extent
The Star	15/04/2021	National
Ekurhuleni News	15/04/2021	Ekurhuleni Metropolitan
Kempton Express	15/04/2021	Ekurhuleni Metropolitan

12.7.4. Distribution of Background Information Document

The first strategy of informing the public about the proposed project after the reconnaissance site visit was to send out background information document via emails to all stakeholders on the database informing them about the project and inviting them to register as an Interested and Affected Parties. (Refer to Appendix 3 for proof of emails sent to Interested and Affected Parties)

12.7.5. Site Notices

The A2 size posters were placed at strategic points on the study area. (Refer to Appendix 4 for a copy of poster).

12.7.6. Giving Notice

The announcement and to All Interested and Affected Parties (I&APs) about the Availability of Draft Scoping Report and Plan of Study. As required by NEMA EIA Regulations 2014 as amended in 2017, the Draft Scoping Report was made available to I&APs for them to have an input in the form of comments. Stakeholders were given 30 days to comment on the draft scoping report from 03rd of June 2021 to 04th of July 2021. I&APs were notified by way of:

12.7.7. Meetings

First meeting was held with councillor Kwili of ward 13 to announce the project. He suggested that we must meet with SANCO. (Refer to Appendix 5 for minutes and register).

12.7.8. Emailed letters

Letters were emailed to all I&APs to notify them about the availability of the Draft Scoping report and the link was also provided for I&AP to download or access the report. Hard copies were also delivered to all stakeholders who requested hard copies. (Refer to Appendix 6 for notification letter and proof of delivery)

12.7.9. Media advertisement

Advertisements were placed in national in the two local newspapers notifying them about the availability of Draft Scoping Report and to encourage them to comment as well as to attend public meetings that will be planned in their area. The Newspapers used are as indicated below.

Newspaper	Date	Extent
Ekurhuleni News	03/06/2021	Ekurhuleni Metropolitan
Kempton Express	03/06/2021	Ekurhuleni Metropolitan

(Refer to Appendix 7 for Newspaper Advertisement

12.7.10. Delivery of Draft Scoping Report

The Draft Scoping Reports were placed at the local library (Kempton Park Public Library) for public review and comment from 03rd of June 2021 to 04th of July 2021 as indicated in the table below:

Name of the Library	Physical Address & contact details
Kempton Park Public Library	Cnr CR Swart & Pretoria Road Kempton Park Tel: 011 999 3062/71

(Refer to Appendix 8 for Proof of delivery)

12.7.11. 5.6.4. Meetings Invitations

All registered stakeholders, I&APs were invited to be part of the virtual meeting that was held on the 21st of June 2021. Second meeting was held on the 24th of June 2021 with SANCO. The main purpose of all these meetings was to discuss the draft scoping report. (See Appendix 9 for proof of invitations, minutes and registers from the meetings).

12.7.12. Reminder to Comment

All Stakeholders, I&APs were reminded and encouraged to comment on the draft scoping report that were made available for review and Comment. (Refer to Appendix 10 for emails).

12.7.13. Comments Received

Comments were captured from the reply sheet sent out to stakeholders to register as Interested and Affected Party. Other comments or issues were captured during the meetings. And received from the main stakeholders like Ekurhuleni Metropolitan. (See Appendix 11 for comments received).

12.7.14. Comments and Responses Report

EIA Regulations, 2014 GNR. No 326, Chapter 6 [Section 44 – the person conducting the PPP must ensure that comments of I&APs and records of meetings are recorded and responded to. The comments and responses report must be attached to the reports that are submitted to the competent authority.

All Comments and Issues raised are included in the comments and responses report (refer to Appendix 12 for CRR).

12.7.15. Conclusion

Based on the inputs received during the Public Participation Process conducted so far, the PPP team is confident that all reasonable efforts were made to inform the public in the study area about the proposed project. The consultation process is considered to have managed to give the public ample opportunity to raise issues of concern, which they might have regarding the proposed project.

Consultation and/or communication with stakeholders and I&APs is ongoing throughout the study process up until EA is issued. Any additional information that will be received from stakeholders and I&APs that might be requested by stakeholders will be given attention during the EIA Phase.

12.7.16. Way Forward

The Final Scoping Report (FSR) will be updated with additional information received or generated during the comment period and submitted to the competent authority for consideration. Registered stakeholders will be notified about the submission of the FSR and they will be advised that the full copy of the report will be posted on a special website that will be created. Once the FSR and the PoS for EIA are approved, again all registered stakeholders will be informed and advised about the beginning of the EIA Phase of the study process.

13. Issues and Comments

This chapter will meet the requirements of Item 2.(1)(g)(iii) in Appendix 2 of GN 326, by providing a summary of the issues raised by interested and affected parties (I&APs) and an indication of the manner in which the issues will be incorporated, or the reasons for not including them. Potential issues that may be raised by I&APs during the public participation process.

COMMENT	RAISED BY: Commentator	RESPONSE: EAP
1. AIR QUALITY		
What impact will this proposed plant have on the air quality in the area? And in conjunction with the NCP Plant?	Nicky Edwards – General Manager Tiger Truck Sales & Spares (PTY) LTD	The Caustic Soda Plant to be constructed and operated by African Chemicals (tenant) within the NCP Chloorkop footprint is designed to be a zero-effluent plant. The caustic flakes will be imported to the site using 1 Ton bags loaded on trucks. At the off-loading bay, the conveyor belt will transport the raw material to the dissolution unit of the plant. The material will be dissolved in boiler water fed from NCP. The steam from the boiler which is not a pollutant will be released into the air as water vapor. This will occur during the dissolution process. No other foreign gases from the process are expected to be released to the environment. **(Ref: Chapter 5.9, Chapter 6.5 -6.5.19)** Liquid caustic soda known as lye, a resulting product, will be pumped into the tankers for dispatch to intended clients. The air quality issues of concern will only occur during the construction phase of the

COMMENT	RAISED BY: Commentator	RESPONSE: EAP
		plant and they are: (Specialist Air Quality Chapter 6) ▪ dust particles from the stripping or clearing activities of land; ▪ fumes due to welding activities of beam structures and other steel and alloy materials; ▪ fumes during the operational phases at the coupling or joints from the storage tanks to the truck containers during the pumping activity. The above air quality pollution drivers are always localized and can be prevented through various proven measures. The Environmental Management Plan will detail these measures. Any waste material that falls on the floor will drain into a sump as waste.
The development facilities and Infrastructure for proposed Caustic Plant will require an AEL in terms of the National Management Air Quality Act, Act 2004 (Act no 36 of 2004)	Teboho Lehu – GDARD – Impact Management	The Air Quality Specialist report is being conducted and the report will be incorporated in the EIR report **Refer Chapter 6.5 -6.5.17)**
Air Quality must be conducted as the production of Caustic triggers section 21, National Management Air Quality Act, Act 2004 (Act no 39 of 2004) Category 7	Teboho Lehu – GDARD – Impact Management	Air Quality Specialist report conducted and the report will be made available both to the Final Draft Scoping report and the DEIR **Refer Chapter 6.5 -6.5.17)**
Possible Air Quality impact due to the proposed Caustic Soda project.	Ernest Mlangeni – SANCO	Air Quality Specialist report conducted, and all possible mitigation measures will be

COMMENT	RAISED BY: Commentator	RESPONSE: EAP
		implemented during construction and operational phase of the proposed project. **Refer Chapter 6.5 -6.5.17)**
2. WATER MANAGEMENT		
I'm currently reviewing the draft report for African Chemicals' proposed caustic soda make up plant. I need clarification on whether provision was made for a boiler or a heater in the process as indicated in the report (hot water Heater). If heater, which fuel does it use, same as with boiler?	Ruth Siminya. Environmental Officer Air Quality Management. Gauteng Department of Agriculture & Rural Development.	Hot water from the Energy Recovery Circuit will be used for cooling of the Caustic Dissolution Tank and heat recovery. For the dissolution cooling, hot water from the Hot Water Storage Tank will be circulated through the Caustic Dissolution Cooler by the Hot Water Supply Pumps, thereby removing excess heat evolved during the dissolution. Heating of the Caustic Lye Storage Tanks will be done by circulating the hot water at 90 °C through the Heating Bayonet Coils using the Caustic Lye Storage Hot Water Pumps. The temperature in the Hot Water Storage Tank is maintained by circulating the hot water through external plate heat exchangers, using the Hot Water Circulation Pumps. The heat from the hot water is removed in the Boiler Feed Water Heaters. The Boiler Feed Water Heaters use the heat from the hot water in the Energy Recovery Circuit to increase the temperature of boiler feed water from Demin water supply feeding NCP from 60°C to 80 °C. Any excess heat not removed by the boiler feed water is removed by cooling water from the Cooling

COMMENT	RAISED BY: Commentator	RESPONSE: EAP
		Water Circuit in the Hot Water Heaters. (**Refer : Chapter 5.9-5.21**) Cooling water from the Cooling Water Circuit is used to remove excess heat from the Caustic Dissolution area and from the Energy Recovery Circuit as described above. The temperature of the cooling water is maintained by removing heat in the Cooling Towers. Cooling water is supplied to other areas by the Cooling Water Pumps.
Contamination of surface and ground water.	Nicky Edward	Boreholes will be monitored on a regular basis. Stormwater will be diverted away from the surrounding areas (Chapters, 6.6.1 and 9.16 respectively).
2.1 WATER SERVICES		
The required development will require the expansion of sewer	Teboho Lehu – GDARD – Impact Management	The specialist studies have considered the investigation and plan for the expansion of the sewer line (**Refer Chapter 6.6.2.** The DEIR – will address this issue in detail.
The development requires Bulk municipal services, as the product itself requires calculated water to mix with caustic flakes and portable water to be provided by municipality	Teboho Lehu – GDARD – Impact Management	The Water Quality Specialist, (**Refer Chapter 6.6.2**) study will incorporate the Services report and will be included in the Draft EIR phase

COMMENT	RAISED BY: Commentator	RESPONSE: EAP
3. WASTE MANAGEMENT		
How waste will be controlled during construction and operational phase.	Nicky Edwards – Tiger Truck	Measures such as recycling, reuse and treat will be implemented during construction and operation of the proposed development.
Toxic waste that might be generated during the construction and operational phase of the proposed project.	Ernest Mlangeni – SANCO	All toxic or hazardous waste that might be generated during the construction and operation of the Caustic Soda Plant will be collected and disposed of at registered hazardous landfill site.
4. ENVIRONMENTAL MANAGEMENT		
What impact will the proposed plant have on the environment in the area?	Nicky Edwards – General Manager Tiger Truck Sales & Spares (PTY) LTD	The specialist studies are being undertaken at present to determine other potential impacts of the plant on the receiving environment in the area. (**Refer Chapter 10.3 – 10.7)**
Description of the receiving environment to indicate that the departmental Conservation Plan version 3.3 denotes the site as partially transformed and without any environmental sensitivity	Teboho Leku – GDARD _ Impact Management	Yes, the Final Scoping Report addressed the issues - (**Refer Chapter 10.3 – 10.7)**
5. OTHER ISSUES		
That the Description of the Site be provided in full including the farm name farm registration, number as well as portion number	Teboho Leku – GDARD – Impact Management	Yes – the Final Scoping Report addressed this issue clearly (refer to **Chapter 4**)

COMMENT	RAISED BY: Commentator	RESPONSE: EAP
Is African chemicals BBBEE compliance	Mr Alfred Sepirwa	African Chemicals PTY LTD, are manufacture and distributor of chemicals including Caustic Soda across African continent. The company is BBBEE level 1 compliance and owned by South Africans.
How many jobs will be created during construction and operation?	Mr Ernest Mlangeni	Approximately 50 jobs may be created during operation and over 300 temporary jobs during construction phase (**Refer**: **Chapter 7.3-7.6**)
Locals must be prioritised for jobs. It would be unfair to bus people from other areas when skills required are available within the local community. Locals must also be prioritised for supply of goods and services. Busing people from outside the municipality will have a negative social impact. It may lead to mushroom of sharks, theft and conflicts with locals. He suggested that African Chemicals must empower the local business.	Mr Alfred Sepirwa	Locals will be made the first preference to the jobs that does not need skills. **(Refer: Chapter 7.3)**
It would have been beneficial if they can have their own safety representative within the project who would report back to the community on a regular basis.	Mr Lizwi Zuma	African Chemicals will ensure that a Community Liaison Officer (CLO) is appointed or an existing employee (e.g. Public Affairs Manager) will be given the responsibility of engaging with the local communities and stakeholders on a regular basis (monthly during the construction phase) and record any complaints concerning the construction phase, investigate the validity of the complaints and where needed

COMMENT	RAISED BY: Commentator	RESPONSE: EAP
		established suitable mitigation measures with the Proponent or the Construction Contractor
6. RISK RELATED ISSUES		
The identification and assessment of Impacts must lead to a conclusion that the associated mitigation measures identified will reduce impacts to an acceptable level and mitigation measures identified must be included in the Final Scoping and DEIAR to be submitted.	Teboho Leku – GDARD – Impact Management	Yes – the DEIAR will detail the Impact identification and Assessment Mitigation **(Refer; Chapter 11.4)**
The number of alternative were provided on the Draft Scoping Report – These must be compared and the least impacting options be selected as preferred proposal. This must form part of the Draft and the Final EIAR.	Teboho Leku – GDARD – Impact Management	Yes- The Alternative have been compared and the FSR and DEIR will address, and these will be carried to the EIR Report (**Refer: Chapter 8)**
7. PUBLIC PARTICIPATION		
It is noted that the Draft Report is being circulated for comment. The Public Participation process must be undertaken in accordance with regulations 2014. Further comments from City of Ekurhuleni Metropolitan Municipality: Directorate of Environmental Infrastructure Service: Impact	Teboho Leku – GDARD – Impact Management.	The request for comments and the sharing of the Draft Scoping Report with Ekurhuleni Municipality and other relevant stakeholder was circulated and comments has been received and are addressed accordingly. **Refer Chapter 12)**

COMMENT	RAISED BY: Commentator	RESPONSE: EAP
Management and Compliance Monitoring must be sought, adequately addressed and submitted to the Dept. with the Final Scoping Repot and DEIAR to be submitted.		
8. EIA PROCESS		
Can you advise if this project has already been signed into or is it still proposed	Nicky Edwards – General Manager Tiger Truck Sales & Spares (PTY) LTD	The Plant is still at the proposed stage and all due diligence and EIA undertaken to determine if the plant will be viable.
8.1 ENVIRONMENTAL MANAGEMENT PLAN – EMPR		
An updated EMPR taking into consideration all matters raised in this letter must be attached on the DEIR	Teboho Leku – GDARD – Impact Management	The EIA phase will include the updated EMPR and the MHI plan which is currently underway
COMMENTS FROM RECEIVED FROM EKURHULENI METROPOLITAN MUNICIPALITY		
It is recommended that the final scoping report should include the National Environmental Management: Waste Act, as one of the applicable legislations.	Ms Lilian Kwakwa – City of Ekurhuleni	National Environmental Management: Waste Act is included in the Final scoping report and recommendations as well as the triggers for waste activity.
It is recommended that Geotechnical Investigations of the site be undertaken.	Ms Lilian Kwakwa – City of Ekurhuleni	The Geotechnical study has been conducted and the details of the report will form part of the EIA Phase.
It has been indicated in the report that, the waste stream for this proposed development will be zero. This department is of the view that, there will	Ms Lilian Kwakwa – City of Ekurhuleni	National Environmental Management: Waste Act is included in the Final scoping report and recommendations as well as the triggers for waste activity.

COMMENT	RAISED BY: Commentator	RESPONSE: EAP
be waste that will be generated from this proposed development, this matter should be thoroughly investigated.		
There is an existing infrastructure within the identified property, the environmental report should indicate what this infrastructure is, and whether it will be demolished or be incorporated into this proposed development.	Ms Lilian Kwakwa – City of Ekurhuleni	The landlord has committed the land to African Chemicals and the present office building infrastructure will be incorporated to the proposed development
Proof of newspaper advert should display the name of the newspaper as well as the date the advert was published.	Ms Lilian Kwakwa – City of Ekurhuleni	All newspapers advertisement displays the name and the date it was published. (See appendix and **Chapter 12**

14. Other Requirements

In accordance with Items 2.(1)(k) and 2.(1)(l) and Item 2.(2) in Appendix 2 of GN 326, this chapter provides:

(i) Where applicable, any specific information required by the competent authority.

(ii) Any other matter required in terms of section 24(4)(a) and (b) of the Act.

(iii) Where a government notice gazetted by the Minister provides for any protocol or minimum information requirement to be applied to a scoping report, the requirements as indicated in such notice will apply.

No other requirements identified or raised by I&AP's

15. EAP Affirmation

In accordance with Items 2.(1)(i) and 2.(1)(j) in Appendix 2 of GN 326, this chapter provides an undertaking under oath or affirmation by the EAP in relation to —

(i) The correctness of the information provided in the report.

(ii) The inclusion of comments and inputs from stakeholders and interested and affected parties.

(iii) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties.

(iv) The level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment.

(v) Independence of the EAP

It is recommended that the following activities form part of the EIA phase:

- Public Participation: public meetings, focus group meetings, public review of documentation;
- Consultation with I&APs regarding possible significance of impacts and suitable mitigation measures;
- Evaluation of impacts prior to mitigation;
- Compilation of practicable and effective mitigation measures;
- Evaluation of impacts after mitigation;
- Provision of an opinion as to whether or not the activity should be authorised;
- Compilation of an environmental impact statement; and
- Compilation of a Draft EMPr and MHI

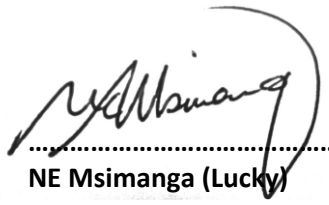
13.4 Declaration by the EAP

I, Nhlanhla L Msimanga declare that:

- I act as the independent environmental practitioner in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this report are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Prepared by

Batach Holdings (Pty) Ltd



……
NE Msimanga (Lucky)

Lead: Environmental Assessment Practitioner

Reviewed by:

_____

Herbert Nemato
Environmental Practitioner

16. Conclusions and Recommendations

Based on the investigations undertaken during review and preparation of this Final Scoping Report document, Batach Holdings is of the opinion that the proposed activity is not in conflict with any regulation as contemplated by NEMA and other legislations. Furthermore, this FSR document complies substantially with Appendix 2 of Government Notice 362 (07 April 2017) and all identified applicable protocols and minimum information requirements and the applicant is willing and able to ensure compliance with these requirements within the prescribed timeframe. Batach Holdings (Pty) Ltd therefore recommends that this **FSR document and Plan of Study** (Chapter 11) be accepted, with or without conditions, and that the applicant be allowed to continue with EIA phase.

APPENDIX I

DATABASE OF INTERESTED AND AFFECTED PARTIES						
SURNAME AND NAME	**ORGANISATION**	**OCCUPATION**	**ADDRESS**	**CONTCT DETAILS**	**FAX NUMBER**	**EMAIL ADDRESS**
CLIENT						
LUCKY MSIMANG	BATACH HOLDING	CHIEF EXECUTIVE OFFICER	PO BOX 496 BENDOR PARK 0699	(061) 356 8423	(086) 679 6758	lucky@batach.co.za
PUBLIC PARTICIPATION						
MR MOSES MAHLANGU	ROTONDWA ENVIRONMENTAL	PP OFFICER	37 VAN STEEL COURT	(013) 656 1212 or 082	(013) 656 2233	delno@telkomsa.net
MR CALVIN NETSHAULU	ROTONDWA ENVIRONMENTAL	PP OFFICER	37 VAN STEEL COURT	(013) 656 1212 or 076 2408 750	(013) 656 2233	calvinTN@telkomsa.net
EKURHULENI METROPOLITAN MUNICIPALITY						
MR THABANG MOKOENA	EKURHULENI METROPOLITAN		PO BOX 25 EDENVALE 1610	(086) 056 3000		Thabang.Mokoena@ekurhuleni.gov.za
SIBONGILE MDLULI	EKURHULENI METROPOLITAN		PO BOX 25 EDENVALE 1610	(086) 056 3000		Sibongile.Mdluli@ekurhuleni.gov.za
BONGEKA MTYANA	EKURHULENI METROPOLITAN		PO BOX 25 EDENVALE 1610	(011) 999 3387	(086) 528 4810	Bongeka.Mtyana@ekurhuleni.gov.za
CLLR SIMON KWILI	EKURHULENI METROPOLITAN		PRIVATE BAG X 1069 GERMISTON 1400	(072) 914 1553		Simon.Kwili@ekurhuleni.gov.za
LILIAN KWAKWA	EKURHULENI METRO POLITAN		PO BOX 25 EDENVALE 1610	083 589 8203		Lilian.Kwakwa@ekurhuleni.gov.za
LERATO SETOLO	EKURHULENI METROPOLITAN		PO BOX 25 EDENVALE 1610	(086) 056 3000		Lerato.Selolo@ekurhuleni.gov.za
GOVERNMENT DEPARTMENTS						
TEBOGO MOLOKOMME	GAUTENG HERITAGE RESURCES		SURREY HOUSE 35 RISSIK STREET	(011) 355 2570	(011) 355 2565	Tobogo.Molokomme@gauteng.gov.za
GRANT BOTHA	GAUTENG HERITAGE RESURCES		SURREY HOUSE 35 RISSIK STREET	(011) 355 2574		grant.botha@gauteng.gov.za
MS LWAZI KELEMBE	GAUTENG ROAD AGENCY		PRIVATE BAG X 70 BRAAMFONTEIN 2017	(011) 298 5001	(011) 298 5178	Lkelembe@jra.org.za
MR KHATHU MUDAU	DEPARTMENT OF WATER AND SANITATION	DIRECTOR: WATER-USE REGULATION	PRIVATE BAG X 995 PRETORIA 0001	(012) 336 7183		mudauk@dws.gov.za
MS CAROLINE SMITH	GDARD					Caroline.Smith@gauteng.gov.za
MS LERATO MOTHAPHO	SANRAL	PLANNER	PRIVATE BAG X LYNWOOD RIDGE 0040	(012) 426 6301	(012) 348 0883	MothapoL@nra.co.za
MS LIVHUWANI NDOU	TRANSNET					Livhuwani.Ndou@transnet.net
MR THATHO MJONA	DWS	MANAGER		083 488 0655		MjonaT@dws.gov.za
OTHER STAKEHOLDERS						
KARABO MOLOKWANE				C: 074 277 9523		karabomolokwane.986@gmail.com
MRS NICOLETTE	EDWARDS	TIGER TRUCK SPARES	PO BOX 182 BEDFORDVIEW	TEL: 011 828 0705 C: 084 814 9836		nicky@tigertruck.co.za
MR BRIAN	ROBY	TIGER TRUCK SPARES	PO BOX 182 BEDFORDVIEW	CELL: 083 256 6407 T: 011 828 0705		Brian@tigertruck.co.za
DENELEK		NCP				denelek@ncp.co.za
JOHNNY A		NCP				JohnnyA@ncp.co.za
FIGAZOGLE		NCP				figazogle@ncp.co.za

BETSBUYS		KLAP				betsbuys@klap.cp.za
ROSS C		NCP				rossc@ncp.co.za
BARNES		NCP				barnes@ncp.co.za
D COSIJIN						dcosijn@absamail.co.za
LETSOKF		DWARF				letsokf@dwarf.gov.za
LECHATEAU						lechateau@mweb.co.za
BONGI TN						bongitn@telkomsa.net
CHLOOROKOP						chloorkop-gau@intekom.co.za
ETIENE A						etienea@joburg.org.za
MR SIYABONGA MANGAI		SANCO	10 DUNLOP STREET CHLOOROKOP	079 411 9166		mangaisiyabonga@yahoo.com
MISS MANTOA MABITSI		SANCO	5134/17 PHOMOLONG	072 769 4590		
MR ERNEST MLANGENI		SANCO	3616 PHOMOLONG	079 687 2417		
MR DIROHOLO ALFRED SEPIRWA		SANCO	11 DUNLOP STREET	079 919 1620		Alfredsepirwa45@gmail.com
MR ABEL MABELANE		SANCO	4476 PHOMOLONG	082 368 2625		
MS ENIE CHAUKE		SANCO	1806 KGABA STREET	073 023 4910		Enie45@gmail.com
MR LIZWI ZUMA		SANCO	3529/25 PHOMOLONG	076 275 7401		

APPENDIX 2

SPORT EXPRESS

Virtually support your favourite charity

As the official charity fund-raising partner of the Two Oceans Marathon, GivenGain will once again support the iconic race.

In addition, GivenGain will also launch an all-new event, the TOM 2021 Virtual Charity Challenge (VCC).

The annual Two Oceans Marathon, a much-anticipated event on the running calendar and known globally as the "world's most beautiful marathon", attracts over 30 000 runners from more than 90 countries annually.

Sadly, it was cancelled for the second year this year due to the coronavirus pandemic, with devastating effects on the many charities that have benefitted from various fund-raising opportunities.

However, organisers say the 2021 virtual challenge will both bring back an iconic event and allow participating non-profits to claw back much of their losses from last year.

To continue offering a memorable race experience to runners and charities alike, the TOM 2021 Virtual Charity Challenge will take place between March 30 and April 30, entirely charity focused and inviting all runners across the globe to unite in running for good.

"We reaffirm our commitment to supporting organisations doing great work across South Africa.

"The inaugural TOM Virtual Charity Challenge is designed to give runners a great experience while they raise funds for organisations whose charitable work in vulnerable communities has been hard hit by the pandemic.

"We look forward to continuing this initiative well into the future," said Debra Barnes, TOM's race director.

The TOM Virtual Charity Challenge gives runners a window period until April 30 to complete their race in any of the following distances: 5.6km, 10km and 20km.

"All runners participating in the event must register to raise funds for a charity of their choice and GivenGain invites charities and runners to visit the official event page on the TOM website to get started with their fund-raising," said Jannie Smith, GivenGain's regional manager for South Africa and sub-Saharan Africa.

Now in their fifth year of partnering with the Two Oceans Marathon, GivenGain's platform has helped raise over R2.3-million during TOM races since 2017, supporting 575 fund-raising participants and donors from 80 countries all contributing to participating charities.

Smith said the average fund-raiser on GivenGain gets 20 donations of R375 each, raising R7 500 each time they do a fund-raising project.

"There are plenty of great examples on GivenGain of South African fund-raisers, corporates, events and charities that have aced fund-raising with a fun challenge, good use of social media or a fantastic story that inspires people to give or participate."

One such fund-raising runner is Keshantha Naidoo, who raised R9 500 in benefit of Reach for a Dream, in honour of her late father's legacy of having served his community through decades of volunteer work.

For more information on when entries will open for the Two Oceans Marathon Virtual Charity Challenge and how to enter, keep an eye out on Facebook, Twitter and Instagram or visit www.twooceansmarathon.org.za

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Learners from Edenvale and Kempton Park took to the court when they competed in the Gauteng East Regional Tournament of the BNP Paribas Rising Star National Primary and High School Tennis Championships.

The championships were played in Benoni on April 10.

Winners from the regional tournament will proceed onto the provincial championships expected to be held later this year.

Results were as follows:

Primary school girls: Hurlyvale Primary School – first.

Primary school boys: Laerskool Rynfield – first. Curro Serengeti – second.

High school girls: Hoër Volkskool Heidelberg A – first. Hoër Volkskool Heidelberg B – second. Ashton College – third. Hoërskool Hans Moore – fourth.

High school boys: Hoër Volkskool Heidelberg A – first. Hoër Volkskool Heidelberg B – second. Ashton College A – third. Hoërskool Kempton Park – fourth. Hoërskool Hans Moore A – fifth. Ashton College B – sixth. Hoërskool Hans Moore B – seventh.

NOTICE

FORM JJJ
LOST OR DESTROYED DEED

Notice is hereby given in terms of regulation 68 of the Deeds Registries Act, 1937, of the intention to apply for the issue of a certified copy of **T3900/1979** by **CITY OF EKURHULENI METROPOLITAN MUNICIPALITY** in respect of certain **CONSOLIDATION OF ERF 617 KLOPPERPARK, SITUATE IN THE EKURHULENI METROPOLITAN MUNICIPALITY, REGISTRATION DIVISION IR, GAUTENG PROVINCE** which has been lost or destroyed.

All interested persons having objection to the issue of such copy are hereby required to lodge the same in writing with the Registrar of Deeds at **JOHANNESBURG** within two weeks from the date of the publication of this notice.

Dated at **JOHANNESBURG** this 12th day of April 2021.

BERNADETTE FELICIA MENEZES
106 JOHAN AVENUE, SANDTON
noluthando@m-mattorneys.com
010 003 7812

AFRICAN CHEMICALS

AN APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION FOR THE CONSTRUCTION AND OPERATION OF A CAUSTIC-SODA MAKE-UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE, SOUTH AFRICA.

PROJECT REFERENCE NUMBER – GAUT: GAUT 002/20-21/E2748

This notice serves to inform interested and affected parties (I&APs) in accordance with the National Environmental Management Act, (Act No. 36 of 1998) (NEMA) as Amended, that African Chemicals (Pty Ltd has appointed Batach Holdings as the environmental assessment practitioner (EAP) to submit an application for an Environmental Authorisation for the construction of a Caustic Soda Make-Up plant in Kempton Park, Gauteng Province.

APPLICANT, PROPOSED PROJECT DESCRIPTION AND LOCATION

The applicant is African Chemicals (Pty) Ltd - an industrial chemical manufacturing, marketing and distributor of caustic soda flakes and pearls (sodium hydroxide), caustic soda (sodium hydroxide), soda ash and hydrochloric acid.

Current production estimates are that the proposed Caustic Soda Make-Up plant will produce approximately 5000 tonne of caustic lye per month at 45-50% weight by weight (w/w). The caustic flakes will be delivered in 1000 kg or 1250 kg bulk bags and stored in a warehouse. The Caustic Lye, at a 50% w/w concentration will be stored at 40 degrees Celsius in heated bulk storage tanks to prevent crystallization.

African Chemical's proposed Caustic Soda Make-Up plant has a development footprint of 18758.67 square meters. The plant will be established on the north eastern boundary tip of the NCP Chlorchem site, Chloorkop in the Ekurhuleni Metropolitan Municipality, Gauteng Province. The proposed plant will be the 5th largest source of caustic soda in Southern Africa and designed to be fully automated with a make-up tank fed through weigh feeders which will ensure consistent product quality. The plant will service inland consumers and SADC countries.

THE AUTHORISATION PROCESS

The construction of the proposed Caustic Soda Make-Up plant triggers the need for scoping and environmental impact assessment (EIA) processes, which will be conducted as per the requirements of the relevant acts and regulations. A Scoping Report, Environmental Impact Assessment Report (EIR) and an Environmental Management Programme (EMP) will be compiled, made available to the general public for comments before they are submitted to the competent authority for consideration.

THE PROCESS TO COMMENT

The National Environmental Management Act (NEMA) requires that I&APs be afforded the opportunity to participate in the environmental authorisation process. A public participation process for the application process has been initiated to afford I&APs representing all relevant interests and sectors of society, technical specialists and the various relevant organs of state, an opportunity to contribute relevant information by commenting on the findings of the environmental assessments and verify that their comments have been considered in the impact assessment process. Should you wish to participate in the process, please request the background information document (BID) or register on the I&AP database by submitting your particulars and contact details to the address below:

Contact person: Lesly Thathana. **Telephone:** +27 68 082 7129. **Fax:** 086 551 9788.
Email: lesly@miprojects.net **Postal Address:** P.O. Box 73111, Lynnwood Ridge, 0040.

The Background Information Document (BID) and Comment Sheet can also be obtained from the following websites:

• **www.batach.co.za** • **www.africhemicals.co.za**

710 LIQUOR ACT

Traditional Cafe

GAUTENG LIQUOR ACT, 2003 (ACT NO. 2 OF 2003)

NOTICE OF APPLICATION IN TERMS OF SECTION 24

[illegible] **MM Advance Auditing** [illegible] **Traditional Cafe** [illegible] ID [illegible] **2014/183463/07** [illegible] **1218 Francolin Crescent, Riverside View Ext. 30** [illegible] **Dainfern, Randburg** [illegible] **Restaurant** [illegible] **Not available** [illegible] **Not available** [illegible] **Not available**

THAPELO MFOLO
CRACDOCK AVE
STANEX SENTRUM
LYTTLETON
TEL: [illegible]

710 LIQUOR ACT

WAKAN TANKA

GAUTENG LIQUOR ACT, 2003 (ACT NO. 2 OF 2003)

NOTICE OF APPLICATION IN TERMS OF SECTION 24

[illegible] **WAKAN TANKA INVESTMENTS (PTY) LTD** [illegible] **WAKAN TANKA** [illegible] ID [illegible] **2017/340374/07** [illegible] **MEZZANINE FLOOR, GREENPARK, ERF NUMBER 1590 & 1591, BEING THE CORNER OF WEST ROAD SOUTH AND LOWER ROAD, MORNINGSIDE EXT 170, SANDTON, GAUTENG, 2057** [illegible] **MORNINGSIDE** [illegible] **RESTAURANT LIQUOR LICENCE OR ANY OTHER LICENCE DEEM APPROPRIATE BY BOARD** [illegible] **SANDOWN HIGH SCHOOL, CRAWFORD COLLEGE TO THE BEST OF THE APPLICANTS KNOWLEDGE** [illegible] **NONE** [illegible] **NONE**

LEON BOTHA
PO BOX [illegible]
CENTURION [illegible]
TEL: [illegible]

711 LOST DEED

FORM JJJ

LOST OR DESTROYED DEED

[illegible] **Deed of Transfer ST25370/2009** [illegible] **AFRICA'S BEST 278 LIMITED, Registration Number 2002/022015/06** [illegible] **THE ESTATE OF THE LATE XUE JIE HUA NO. 1517/2021, (Identity Number 660307 0068 08 0),** [illegible] **SECTION NUMBER 67 IN THE SCHEME KNOWN AS CROWN CITY SITUATE AT CROWN CITY EXTENSION 2 TOWNSHIP; CROWN CITY EXTENSION 3, LOCAL AUTHORITY CITY OF JOHANNESBURG** [illegible] JOHANNESBURG [illegible] ST [illegible] MARCH [illegible]
AASHIA SALOOJEE INC. ATTORNEYS
[illegible]
LENASIA
JOHANNESBURG
[illegible]
R[illegible]: CA[illegible]FV

711 LOST DEED

FORM JJJ

LOST OR DESTROYED DEED

[illegible] **Deed of Transfer ST25311/2009** [illegible] **AFRICA'S BEST 278 LIMITED, Registration Number 2002/022015/06** [illegible] **THE ESTATE OF THE LATE ZHI WEI ZHONG NO. 1525/2021 (Identity Number 631024 5875 08 0)** [illegible] **SECTION NUMBER 21 IN THE SCHEME KNOWN AS CROWN CITY IN RESPECT OF THE LAND AND BUILDING OR BUILDINGS SITUATE AT CROWN CITY EXTENSION 2 TOWNSHIP; CROWN CITY EXTENSION 3, LOCAL AUTHORITY CITY OF JOHANNESBURG** [illegible] JOHANNESBURG [illegible] ST [illegible] MARCH [illegible]
AASHIA SALOOJEE INC. ATTORNEYS
[illegible]
LENASIA
JOHANNESBURG
[illegible]
R[illegible]: CA[illegible]FV

711 LOST DEED

FORM JJJ

LOST OR DESTROYED DEED

[illegible] **Deed of Transfer T7022/1991** [illegible] **CITY COUNCIL OF GERMISTON** [illegible] **SABERABIBI ISMAIL Identity Number 600205 0114 05 7** [illegible] **ERF 923 PALM RIDGE TOWNSHIP, REGISTRATION DIVISION I.R., THE PROVINCE OF GAUTENG** [illegible] PRETORIA [illegible] RD [illegible] MARCH [illegible]
AASHIA SALOOJEE INC. ATTORNEYS
[illegible]
LENASIA
JOHANNESBURG
[illegible]
R[illegible]: CA[illegible]FV

711 LOST DEED

FORM JJJ

LOST OR DESTROYED DEED

[illegible] **Deed of Transfer ST36022/2010** [illegible] **SIBONGILE MANGANYI, Identity Number: 800806 0453 08 6, Unmarried** [illegible] **RENEE GARDINER, Identity Number: 650213 0034 08 4, Unmarried** [illegible] **SECTION NO. 58 FONTENAY, MELROSE ESTATE TOWNSHIP** [illegible] JOHANNESBURG [illegible]
APPLICANT:
RENEE GARDINER
ADDRESS:
HOUGHTON MEWS
[illegible]TH AVENUE
HOUGHTON ESTATE
NUMBER : [illegible]
EMAIL: [illegible]

711 LOST DEED

FORM JJJ

LOST OR DESTROYED DEED

[illegible] **Notarial Cession of Exclusive Use Areas No. SK.2091/2017S** [illegible] **106 SANDTON SKYE PROPRIETARY LIMITED, Registration Number: 2016/489112/07** [illegible] **PARKING P67** [illegible] FIFTEEN [illegible] **SANDTON SKYE** [illegible] **MORNINGSIDE EXTENSION 50 TOWNSHIP, Local Authority: CITY OF JOHANNESBURG METROPOLITAN MUNICIPALITY** [illegible] **SS 941/2014** [illegible] TWO [illegible]
APPLICANT:
[illegible] SANDTON SKYE PROPRIETARY LIMITED
ADDRESS:
C/O ANGIE FRASER ATTORNEY
[illegible] DAVIES ROAD
BRYANSTON
EMAIL ADDRESS: [illegible]
TELEPHONE: [illegible]

711 LOST DEED

FORM JJJ

LOST OR DESTROYED DEED

[illegible] **deed of Grant TG 33628/1997GZ** [illegible] **South African Development Trust** [illegible] **Dlayani James Baloyi, Identity Number: 590620 5713 087, Unmarried** [illegible] **ERF 233 Mkhuhlu-C Township Registration Division K.U Mpumalanga Province,** [illegible]
Applicant
Address: ERF [illegible] M[illegible]C
[illegible]
E[illegible] Address: [illegible]
C[illegible] N[illegible]: [illegible]

711 LOST DEED

FORM JJJ

LOST OR DESTROYED DEED

[illegible] **Deed of Transfer Number TL32115/1990** [illegible] **CITY OF EKURHULENI METROPOLITAN MUNICIPALITY** [illegible] **WENDY THUMELO NDABA, Identity Number: 601227 0572 08 3 and NDABA SIMON NDABA, Identity Number: 490507 5621 08 2, Married in community of property to each other** [illegible] **ERF 8123 TSAKANE TOWNSHIP, REGISTRATION DIVISION I.R., PROVINCE OF GAUTENG, MEASURING 260 (TWO HUNDRED AND SIXTY) SQUARE METRES** [illegible]
APPLICANT :
AG SMUTS & PARTNERS
Address: [illegible] V[illegible] R[illegible]d
[illegible]
E[illegible] Address: [illegible]
C[illegible] N[illegible]: [illegible]
JHB L[illegible] N[illegible]: [illegible]

LOST OR DESTROYED DEED

[illegible] **WOOLFE MACHET** BORN ON [illegible] APRIL [illegible] **PETER LAURENCE BOUTTELL** BORN ON [illegible] NOVEMBER [illegible] ERF [illegible] KENSINGTON TOWNSHIP REGISTRATION DIVISION I.R PROVINCE OF GAUTENG [illegible]
RICHARD F REED ATTORNEYS
[illegible] PENELOPE AVENUE
CNR GORDON ROAD
FLORIDA NORTH
P O BOX [illegible]
FLORIDA HILLS [illegible]
TEL: [illegible]
EMAIL: [illegible]
REKHA CHETTY
IN MY CAPACITY AS EXECUTRIX IN THE ESTATE OF THE LATE PETER LAURENCE BOUTTELL
(THE STAR)

711 LOST DEED

FORM JJJ

LOST OR DESTROYED DEED

[illegible] **Deed of Transfer No. ST.30034/2017** [illegible] **106 SANDTON SKYE PROPRIETARY LIMITED, Registration Number :2016/489112/07** [illegible] **Section Number 6** [illegible] **SS 941/2014** [illegible] **SANDTON SKYE** [illegible] **MORNINGSIDE EXTENSION 50 TOWNSHIP, Local Authority: CITY OF JOHANNESBURG METROPOLITAN MUNICIPALITY** [illegible] TWO [illegible]
APPLICANT:
[illegible] SANDTON SKYE PROPRIETARY LIMITED
ADDRESS:
C/O ANGIE FRASER ATTORNEY
[illegible] DAVIES ROAD
BRYANSTON
EMAIL ADDRESS: [illegible]
TEL: [illegible]

711 LOST DEED

LOST OR DESTROYED DEED

[illegible] D[illegible] Tr[illegible] **BUSI LORAINE NKOSI AND PETROS DAVID RAMOTSIPE** [illegible] **ESTATE LATE JEREMIAH BOY KUNENE** [illegible] ERF [illegible] KWA THEMA EXTENSION [illegible] TOWNSHIP REGISTRATION DIVISION I.R. PROVINCE OF GAUTENG MEASURING: [illegible] TWO HUNDRED AND NINETY SIX SQUARE METRES HELD BY DEED OF TRANSFER T[illegible]
APPLICANT: SANELE SONKOSI : EXECUTOR
ADDRESS:
MOSES SILINDA INCORPORATED
[illegible]
EMAIL ADDRESS: [illegible]
TELL: [illegible]
(THE STAR)

711 LOST DEED

FORM KKK

LOST OR DESTROYED BOND

[illegible] **Sectional Mortgage Bond Number SB.17000/2017** [illegible] **106 SANDTON SKYE PROPRIETARY LIMITED** [illegible] **R2,240,000.00 (TWO MILLION TWO HUNDRED AND FORTY THOUSAND RAND)** [illegible] **GROBANK LIMITED, Registration Number: 1947/025414/06** [illegible] **THE SOUTH AFRICAN BANK OF ATHENS LIMITED)** [illegible] **Section Number 6** [illegible] **SS 941/2014** [illegible] **SANDTON SKYE** [illegible] **MORNINGSIDE EXTENSION 50 TOWNSHIP, Local Authority: CITY OF JOHANNESBURG METROPOLITAN MUNICIPALITY** [illegible] **PARKING P67** FIFTEEN [illegible] **SANDTON SKYE** [illegible] **MORNINGSIDE EXTENSION 50 TOWNSHIP, Local Authority: CITY OF JOHANNESBURG METROPOLITAN MUNICIPALITY** [illegible] **SS 941/2014** [illegible] TWO [illegible]
APPLICANT:
GROBANK LIMITED
[illegible] THE SOUTH AFRICAN BANK OF ATHENS LIMITED
ADDRESS:
C/O ANGIE FRASER ATTORNEY
[illegible] DAVIES ROAD
BRYANSTON
EMAIL ADDRESS: [illegible]
TELEPHONE: [illegible]

716 SALE OF BUSINESS

SALE OF BUSINESS

[illegible] **Falkenhayn Investments (Pty) Limited (Registration Number: 2016/509043/07** [illegible] **James Robert Jackson (Identity Number: 780405 5300 18 8) and Francis Jackson (Identity Number: 840316 0023 08 9)** [illegible] **PostNet Hyde Park, Hyde Park Shopping Centre, Mez1, Level 5, Hyde Park, Jan Smuts Avenue, Johannesburg, Gauteng** [illegible] **Hyde Park Enterprises (Pty) Limited (Registration Number: 2021/471159/07)** [illegible] **Rodney Arthur Brabant (Identity Number: 591021 5006 08 6)** [illegible]
(THE STAR)

714 PUBLIC NOTICES

SIZWE MEDICAL FUND

SIZWE MEDICAL FUND
Registration Number 1486

NOTICE OF ANNUAL GENERAL MEETING (AGM) OF MEMBERS AND CALL FOR MOTIONS

The Sizwe Medical Fund (Scheme) is registered in terms of the Medical Schemes Act of 1998, as an unrestricted membership medical scheme.

To: Members of Sizwe Medical Fund

The Board of Trustees and Independent Committee Members of Sizwe Medical Fund.

Notice is hereby given that the Sizwe Medical Fund AGM for the year ended December 2020 will be held as follows:

Date: 21 August 2021
Time: 10h00
Venue: Durban International Convention Centre (DICC)
45 Bram Fischer Road
Durban
4001

Kindly note that the Scheme is calling for motions to be placed before the AGM. The Call for motions period is now open and will close on the 21st of June 2021. **Due to the Covid-19 pandemic and social distancing regulations, members are required to rsvp by sending name and surname, membership number and ID number**. To the Office of the Principal Officer, Dr. Simon Mangcwatywa by emailing **agm@sizwemedfund.co.za** or by calling 011 298 1500.

SIZWE MEDICAL FUND

SIZWE MEDICAL FUND
Registration Number 1486

NOTICE OF A PROCESS TO ELECT TRUSTEES TO THE SIZWE MEDICAL FUND BOARD OF TRUSTEES FOR 2021

The Sizwe Medical Fund (**"the Scheme"**) is registered in terms of the Medical Schemes Act, 1998 as an unrestricted membership medical scheme.

Notice is hereby given of a process to elect new trustees to the SIZWE Board of Trustees to be conducted between April and August 2021. In accordance with the Rules, the election process is independently managed by KwaNdlunkulu Events (PTY)LTD.

CANDIDATE NOMINATION

Principal Members of the Scheme who are registered and active are invited to participate in the election of eight (8) trustees. Principal members wishing to stand as candidates for election must be supported by two (2) other active principal members, (a proposer and a seconder).

Nomination packs with nomination forms have been dispatched to all Principal Members. These packs are also available on the SIZWE website: **www.sizwe.co.za** KwaNdlunkulu Events (PTY)LTD. on **011 202 5302** or by email at **elections@kwandlunkulu.co.za**

Candidate nominations must be submitted using the prescribed nomination form and must reach KwaNdlunkulu Events (PTY)LTD / Returning Officer on or before **17h00 on 31 May 2021**. Nominations received after the deadline will be invalid.

Nomination forms must be marked for the attention of: **The Returning Officer, Sizwe 2021 Board of Trustees Elections** and may be returned through any of the following methods:

- Fax: 086 439 5899
- Email: **elections@kwandlunkulu.co.za**
- Post: PostNet suite 85, Private Bag x43, Sunninghill, 2157
- 68 Nanyuki Road, 71 San Vitto, Sunninghill,2091

VOTING

Voting for the qualifying candidates will be conducted between **July and August 2021**. Detailed information on the voting rules and procedure will be communicated to all members nearer to the commencement date of the voting process.

FURTHER ENQUIRIES

The election process is independently managed by Kwandlunkulu. All enquiries pertaining to the election must be directed to **The Returning Officer: Siyanda Mtshiza on 086 439 5899 OR email: elections@kwandlunkulu.co.za**

ACM/37388

717 TENDERS

AFRICAN CHEMICALS

AN APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION FOR THE CONSTRUCTION AND OPERATION OF A CAUSTIC-SODA MAKE-UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE, SOUTH AFRICA.

PROJECT REFERENCE NUMBER – GAUT: GAUT 002/20-21/E2748

This notice serves to inform interested and affected parties (I&APs) in accordance with the National Environmental Management Act, (Act No. 36 of 1998) (NEMA) as Amended, that African Chemicals (Pty Ltd has appointed Batach Holdings as the environmental assessment practitioner (EAP) to submit an application for an Environmental Authorisation for the construction of a Caustic Soda Make-Up plant in Kempton Park, Gauteng Province.

APPLICANT, PROPOSED PROJECT DESCRIPTION AND LOCATION

The applicant is African Chemicals (Pty) Ltd - an industrial chemical manufacturing, marketing and distributor of caustic soda flakes and pearls (sodium hydroxide), caustic soda (sodium hydroxide), soda ash and hydrochloric acid.

Current production estimates are that the proposed Caustic Soda Make-Up plant will produce approximately 5000 tonne of caustic lye per month at 45-50% weight by weight (w/w). The caustic flakes will be delivered in 1000 kg or 1250 kg bulk bags and stored in a warehouse. The Caustic Lye, at a 50% w/w concentration will be stored at 40 degrees Celsius in heated bulk storage tanks to prevent crystallization.

African Chemical's proposed Caustic Soda Make-Up plant has a development footprint of 18758.67 square meters. The plant will be established on the north eastern boundary tip of the NCP Chlorchem site, Chloorkop in the Ekurhuleni Metropolitan Municipality, Gauteng Province. The proposed plant will be the 5th largest source of caustic soda in Southern Africa and designed to be fully automated with a make-up tank fed through weigh feeders which will ensure consistent product quality. The plant will service inland consumers and SADC countries.

THE AUTHORISATION PROCESS

The construction of the proposed Caustic Soda Make-Up plant triggers the need for scoping and environmental impact assessment (EIA) processes, which will be conducted as per the requirements of the relevant acts and regulations. A Scoping Report, Environmental Impact Assessment Report (EIR) and an Environmental Management Programme (EMP) will be compiled, made available to the general public for comments before they are submitted to the competent authority for consideration.

THE PROCESS TO COMMENT

The National Environmental Management Act (NEMA) requires that I&APs be afforded the opportunity to participate in the environmental authorisation process. A public participation process for the application process has been initiated to afford I&APs representing all relevant interests and sectors of society, technical specialists and the various relevant organs of state, an opportunity to contribute relevant information by commenting on the findings of the environmental assessments and verify that their comments have been considered in the impact assessment process. Should you wish to participate in the process, please request the background information document (BID) or register on the I&AP database by submitting your particulars and contact details to the address below:

Contact person: Lesly Thathana. **Telephone:** +27 68 082 7129. **Fax:** 086 551 9788.
Email: lesly@miprojects.net **Postal Address:** P.O. Box 73111, Lynnwood Ridge, 0040.

The Background Information Document (BID) and Comment Sheet can also be obtained from the following websites:
• **www.batach.co.za** • **www.africhemicals.co.za**

717 TENDERS

REQUEST FOR EXPRESSIONS OF INTEREST: EXPORTERS OF MEDICAL SUPPLIES & EQUIPMENT AND EXPORTERS OF GENERAL GOODS

REF – PSI 0012/2021

PSI Zimbabwe (PSI/Z) is inviting Registered and duly licensed exporters to submit expression of interest letters to be considered for the Export of Medical Supplies & Equipment and/or Export of General Goods for 2021-2022 period. PSI/Z is a donor-funded organisation operating in close collaboration with Zimbabwe's Ministry of Health and Child Care to achieve bottom-line health impact through targeted health communications and distribution of health products & services. Interested exporters (including existing PSI/Z suppliers) in the below listed categories are encouraged to participate.

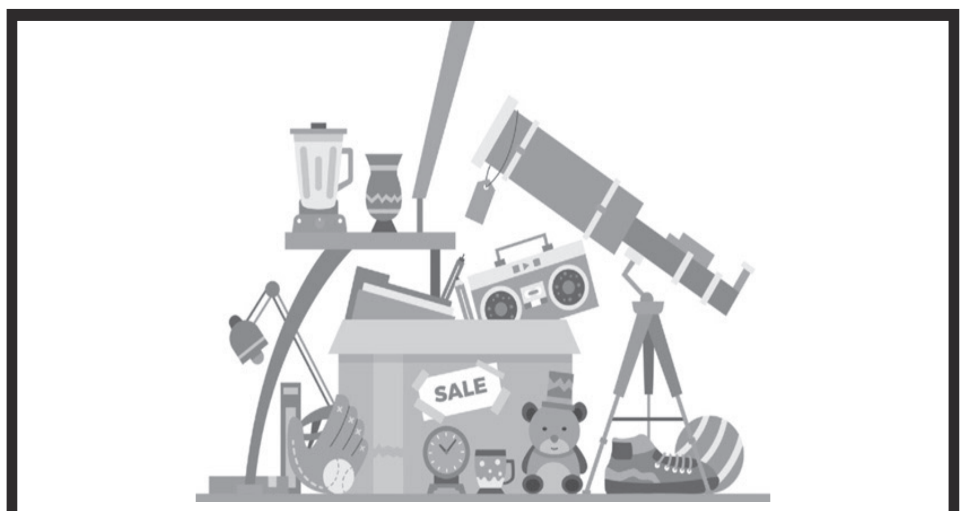
CATEGORY NUMBER	PRODUCT / SERVICE DESCRIPTION
1.	Pharmaceutical medicines – manufacturers and wholesalers
2.	Clinic / hospital equipment, consumables, and devices – e.g. examination couches, medicine cabinets, autoclaves; PPE (latex gloves, medical masks, hazmat suits, gowns etc.), disinfectants, sharps tins and sundries
3.	Laboratory equipment and reagents, e.g. Abbott, GeneXpert, Mindray, Qiagen HPV Care system, Biosafety Cabinets, Ventilated Workstations, Centrifuges, Vortex mixers, etc. NB: Where proof of territorial distributorship / agency is applicable, it should be current, and clearly state the nature of agency, e.g. whether exclusive or non-exclusive.
4.	Rapid Diagnostic Test Kits – e.g. COVID-19 antigen, Hepatitis B, Pregnancy test kits (Advance® or equivalent), CRAG IMMY Lateral flow test kits. **NB:** Proof of technical validation by National Microbiology Reference Laboratory of Zimbabwe is crucial, where applicable.

All submissions should include the following: • CIPC Registration documents (CK2 Certificate incorporating listing of company directors) • A copy of valid Tax Clearance Certificate • VAT Registration Certificate • Registration as an Exporter for SADC • Allocation of Customs Code Numbers • MCAZ Certification & permits (where applicable) • Quality Assurance accreditation (where applicable) • Company profile, clearly stating physical address, contact numbers, company website and e-mail address, and trade references.

The deadline for submission of responses is Sunday 18th of April 2021.
Responses should be submitted via e-mail to: tenders@psi.org.zw. The Subject line should be clearly marked with the category ref number and description of category being applied for (if applying for more than a single category then a separate e-mail submission should be made for each category.

NB: Only short-listed vendors will be contacted for a more detailed assessment (including but not limited to visits to vendor premises). Successful assessments will lead to the qualifying suppliers being added to PSI/Z's Pre-Qualified Supplier List. PSI/Z reserves the right to accept or reject submissions.

psi
Healthy lives. Measurable results.



APPENDIX 3

Date: 17 May 2021

Dear Interested and Affected Party

ENVIRONMENTAL IMPACT ASSESSMENT (SCOPING AND EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATION OF THE CAUSTIC SODA MAKE-UP PLANT IN CHLOORKOP WITHIN EKURHULENI METROPOLITAN IN GAUTENG PROVINCE

GDARD REF: GAUT 002/20-21/E2748

African Chemicals (AC) propose to construct and operate a Caustic-Make-up plant. The proposed development aims to operate autonomously with its own slip road, security access, weighbridge, warehouse, production facility, tank farm, staff and technology. African Chemicals wishes to import dry caustic, transport it to the newly proposed facility in Johannesburg, Chloorkop where it can be dissolved into lye form and loaded into customer tanker trucks or Intermediate, Bulk Containers (IBC) containers. The dissolution, storage and loading of all this form part of the Caustic Make-up Plant.

Based on National Environmental Management Act, 1998 and EIA Regulations 2014 Sections 39, 40, 41, 42, 43 and 44, public participation is being conducted to afford stakeholders an opportunity to make an input in the study for the proposed project. As result, Batach Holdings has appointed Rotondwa Environmental Services and Consulting to conduct the public participation process.

Rotondwa Environmental Services and Consulting calls for Interested and Affected Parties (I&APS) to register as a stakeholder for this project. Registered stakeholders will be given an opportunity to comment or bring up issues of relevant importance to incorporate them into reports to be submitted to the competent authority (Gauteng Department of Agriculture and Rural Development).

A background information document (BID) and maps are herewith attached to provide you with information about this project and the process being adopted for this study. Additionally a response sheet is also attached and you are requested to complete and return it to Rotondwa Environmental Services and Consulting.

Yours faithfully

NC Netshaulu
Public Participation Officer

Calvin Netshaulu

From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: 27 May 2021 10:23 AM
To: 'mudauk@dws.gov.za'; 'Tebogo.Molokomm@gauteng.gov.za'; 'Lerato Mothapo (NR)'
Cc: 'Lkelembe@jra.org.za'
Subject: APPLICATION FOR ENVIRONMENTAL AUTHORISATION: CONSTRUCTION AND OPERATION OF CAUSTIC SODA PLANT IN KEMPTON PARK_ PROJECT REF: GAUT-002/20-21/E2748
Attachments: BID _ Background Information Document.pdf

Dear Stakeholder

You are hereby invited to take part in an application for an environmental authorisation for African Chemicals' proposed Caustic-Make-up plant in Kempton Park, Gauteng Province, South-Africa. Attached please find a background information document (BID) that provides some background about the project, and a Comment Sheet that you may use to register your participation in the environmental authorisation process. your participation in the process is highly valued.

Kind Regards,

***Calvin Netshaulu** (Cert.Sci.Nat)*
Rotondwa Environmental Services and Consulting
P.O.Box 12822
Leraatsfontein, 1038
Tel: 013 656 1212
Fax: 013 656 2233
Cell: 076 240 8750
***Email:** calvinTN@telkomsa.net*

Rotondwa Environmental
Service and Consulting

Calvin Netshaulu

From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: 27 May 2021 11:08 AM
To: 'MjonaT@dws.gov.za'
Subject: APPLICATION FOR ENVIRONMENTAL AUTHORISATION: CONSTRUCTION AND OPERATION OF CAUSTIC SODA PLANT IN KEMPTON PARK_ PROJECT REF: GAUT-002/20-21/E2748
Attachments: BID _ Background Information Document.pdf

Dear Stakeholder

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Kind Regards,

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Rotondwa Environmental Services and Consulting
P.O.Box 12822
Leraatsfontein, 1038
Tel: 013 656 1212
Fax: 013 656 2233
Cell: 076 240 8750
***Email:** calvinTN@telkomsa.net*

Rotondwa Environmental
Service and Consulting

Calvin Netshaulu

From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: 27 May 2021 04:51 PM
To: 'Simon.Kwili@ekurhuleni.gov.za'
Subject: APPLICATION FOR ENVIRONMENTAL AUTHORISATION: CONSTRUCTION AND OPERATION OF CAUSTIC SODA PLANT IN KEMPTON PARK_ PROJECT REF: GAUT-002/20-21/E2748
Attachments: BID _ Background Information Document.pdf

Dear Stakeholder

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Kind Regards

***Calvin Netshaulu** (Cert.Sci.Nat)*
Rotondwa Environmental Services and Consulting
P.O.Box 12822
Leraatsfontein, 1038
Tel: 013 656 1212
Fax: 013 656 2233
Cell: 076 240 8750
***Email:** calvinTN@telkomsa.net*

Rotondwa Environmental
Service and Consulting

Calvin Netshaulu

From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: 28 May 2021 11:58 AM
To: 'grant.botha@gauteng.gov.za'
Subject: APPLICATION FOR ENVIRONMENTAL AUTHORISATION: CONSTRUCTION AND OPERATION OF CAUSTIC SODA PLANT IN KEMPTON PARK_ PROJECT REF: GAUT-002/20-21/E2748
Attachments: BID _ Background Information Document.pdf

Dear Stakeholder

You are hereby invited to take part in an application for an environmental authorisation for African Chemicals' proposed Caustic-Make-up plant in Kempton Park, Gauteng Province, South-Africa. Attached please find a background information document (BID) that provides some background about the project, and a Comment Sheet that you may use to register your participation in the environmental authorisation process. your participation in the process is highly valued.

Kind Regards,

***Calvin Netshaulu** (Cert.Sci.Nat)*
Rotondwa Environmental Services and Consulting
P.O.Box 12822
Leraatsfontein, 1038
Tel: 013 656 1212
Fax: 013 656 2233
Cell: 076 240 8750
Email: calvinTN@telkomsa.net

Rotondwa Environmental
Service and Consulting

Calvin Netshaulu

From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: 28 May 2021 01:16 PM
To: 'delenek@ncp.co.za'; 'JohnnyA@ncp.co.za'; 'fivazogle@telkomsa.net'; 'betsbuys@klap.co.za'; 'rossc@ncp.co.za'; 'barneys@ncp.co.za'; 'kemptonexpress@caxton.co.za'; 'tv2h@telkomsa.net'; 'elfueng@mweb.co.za'; 'donk@ncp.co.za'
Cc: 'dcosijn@absamail.co.za'; 'etsokf@dwaf.gov.za'; 'lechateau@mweb.co.za'; 'bongitn@telkomsa.net'; 'chloorkop-gau@intekom.co.za'; 'etiennea@joburg.org.za'; 'ruth.siminya@gauteng.gov.za'; 'leon@lasters.co.za'; 'mmanyaka@mabothainvestment.co.za'; 'lucky@batach.co.za'; 'vhuhone vhuhone'
Subject: APPLICATION FOR ENVIRONMENTAL AUTHORISATION: CAUSTIC SODA MAKE-UP PROJECT_GAUT-002/20-21/E2748
Attachments: Reminder to return the comment sheet .pdf

Dear Stakeholder

This is reminder to return a comment sheet as indicated in the attached letter.

Regards

Calvin Netshaulu (Cert.Sci.Nat)
Rotondwa Environmental Services and Consulting
P.O.Box 12822
Leraatsfontein, 1038
Tel: 013 656 1212
Fax: 013 656 2233
Cell: 076 240 8750
Email: calvinTN@telkomsa.net

Rotondwa Environmental
Service and Consulting

From: Lesly Thathana <lesly@miprojects.net>
Sent: Friday, May 14, 2021 4:39 PM
To: 'Lucky Msimanga' <lucky@batach.co.za>
Subject: FW: BID and Comment Sheet

FYI

From: Lesly Thathana <lesly@miprojects.net>
Sent: 17 April 2021 03:35 PM
To: 'delenek@ncp.co.za' <delenek@ncp.co.za>; 'JohnnyA@ncp.co.za' <JohnnyA@ncp.co.za>; 'fivazogle@telkomsa.net' <fivazogle@telkomsa.net>; 'betsbuys@klap.co.za' <betsbuys@klap.co.za>; 'rossc@ncp.co.za' <rossc@ncp.co.za>; 'barneys@ncp.co.za' <barneys@ncp.co.za>; 'kemptonexpress@caxton.co.za'

'rossc@ncp.co.za' <rossc@ncp.co.za>; 'barneys@ncp.co.za' <barneys@ncp.co.za>; 'kemptonexpress@caxton.co.za' <kemptonexpress@caxton.co.za>; 'tv2h@telkomsa.net' <tv2h@telkomsa.net>; 'echo@echo.co.za' <echo@echo.co.za>; 'deklerkr@desktop.co.za' <deklerkr@desktop.co.za>; 'lebomo@joburg.org.za' <lebomo@joburg.org.za>; 'spotgieter@dcw.com' <spotgieter@dcw.com>; 'elfueng@mweb.co.za' <elfueng@mweb.co.za>; 'donk@ncp.co.za' <donk@ncp.co.za>; 'dcosijn@absamail.co.za' <dcosijn@absamail.co.za>; 'letsokf@dwaf.gov.za' <letsokf@dwaf.gov.za>; 'lechateau@mweb.co.za' <lechateau@mweb.co.za>; 'bongitn@telkomsa.net' <bongitn@telkomsa.net>; 'chloorkop-gau@intekom.co.za' <chloorkop-gau@intekom.co.za>; 'etiennea@joburg.org.za' <etiennea@joburg.org.za>; 'ruth.siminya@gauteng.gov.za' <ruth.siminya@gauteng.gov.za>; 'leon@lasters.co.za' <leon@lasters.co.za>
Cc: 'mmanyaka@mabothainvestment.co.za' <mmanyaka@mabothainvestment.co.za>; 'Lucky Msimanga' <lucky@batach.co.za>
Subject: BID and Comment Sheet

Good day

You are hereby invited to take part in an application for an environmental authorisation for African Chemicals' proposed Caustic-Make-up plant in Kempton Park, Gauteng Province, South-Africa. Attached please find a background information document (BID) that provides some background about the project, and a Comment Sheet that you may use to register your participation in the environmental authorisation process. your participation in the process is highly valued.

Kind Regards,

Lesly

APPENDIX 4


NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT: APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO.107 OF 1998) AND EIA REGULATIONS 2014 AS AMENDED IN APRIL 2017: PROPOSED CONSTRUCTION AND OPERATION OF A CAUSTIC-SODA MAKE-UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE.
Notice is hereby given in terms of National Environmental Management Act, 107 of 1998 and EIA Regulations 2014 as amended on 07 April 2017.
NATURE OF THE ACTIVITY
African Chemicals (AC) propose to construct and operate a Caustic-Make-up plant. The proposed development aims to operate autonomously with its own slip road, security access, weighbridge, warehouse, production facility, tank farm, staff and technology. African Chemicals wishes to import dry caustic, transport it to the newly proposed facility in Johannesburg, Chloorkop where it can be dissolved into lye form and loaded into customer tanker trucks or Intermediate, Bulk Containers (IBC) containers. The dissolution, storage and loading of all this form part of the Caustic Make-up Plant.
The proposed project triggered the following activities:
Listing 1 Activity 56 and 19
Listing 2 Activity 4,6 & 7
LOCATION OF THE PROJECT
The proposed project is situated at ERF No 198 IR in Chloorkop within the City of Ekurhuleni Metropolitan in Gauteng Province.
CONTACT DETAILS OF PUBLIC PARTICIPATION TEAM AND EAP
Public Participation Officer
Rotondwa Environmental Services & Consulting
Cell: 076 240 8750
Fax: 013 656 2233
Environmental Assessment Practitioner
Batach Holding
Lucky Mamanga
Cell: 081 356 8423
Fax: 086 769 6756
To ensure that you are registered as an Interested and Affected Party or to obtain further information please submit your name and contact details to the consultant above.

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT: APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO.107 OF 1998) AND EIA REGULATIONS 2014 AS AMENDED IN APRIL 2017: PROPOSED CONSTRUCTION AND OPERATION OF A CAUSTIC-SODA MAKE-UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE.

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CONTACT DETAILS OF PUBLIC PARTICIPATION TEAM AND EAP

Public Participation Officer
Rotondwa Environmental Services & Consulting
Calvin Netshaulu
Cell: 076 240 8750
Fax: 013 656 2233
calvinTN@telkosa.net

Environmental Assessment Practitioner
Batach Holding
Lucky Msimanga
Cell: 061 356 8423
Fax: 086 769 6758
lucky@batach.co.za

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Rotondwa Environmental Service and Consulting

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT: APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO.107 OF 1998) AND EIA REGULATIONS 2014 AS AMENDED IN APRIL 2017: PROPOSED CONSTRUCTION AND OPERATION OF A CAUSTIC-SODA MAKE-UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE.

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Public Participation Officer
Rotondwa Environmental Services & Consulting
Calvin Netshaulu
Cell: 076 240 8750
Fax: 013 656 2233
calvin1TN@telkosa.net

Environmental Assessment Practitioner
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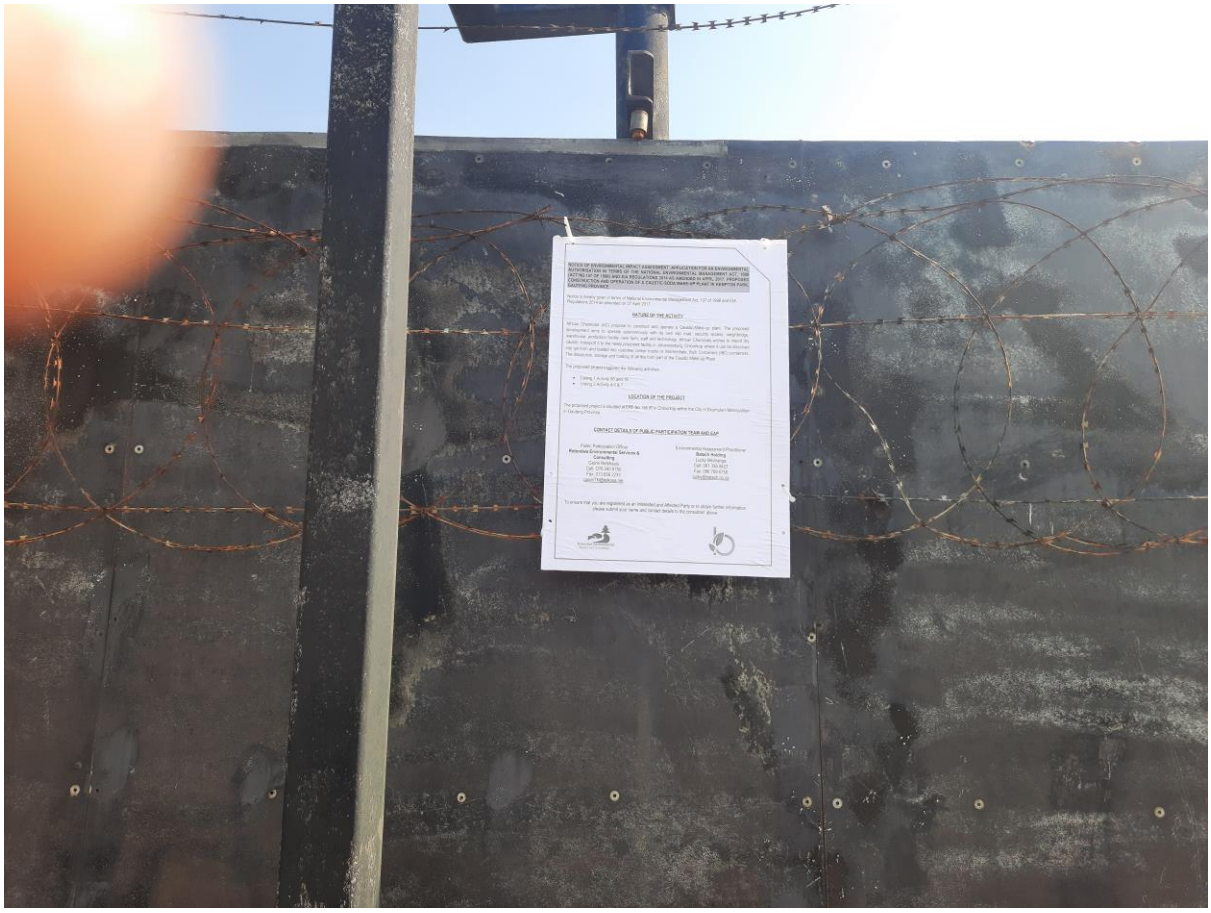
Lucky Maimanga
Cell: 061 356 8423
Fax: 086 769 6758
lucky@batach.co.za

To ensure that you are registered as an Interested and Affected Party or to obtain further information please submit your name and contact details to the consultant above



NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT: APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO.107 OF 1998) AND EIA REGULATIONS 2014 AS AMENDED IN APRIL 2017: PROPOSED CONSTRUCTION AND OPERATION OF A CAUSTIC-SODA MAKE-UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE.

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CONTACT DETAILS OF PUBLIC PARTICIPATION TEAM AND EAP

Public Participation Officer
Rotondwa Environmental Services & Consulting
Calvin Netshaulu
Cell: 076 240 8750
Fax: 013 656 2233
calvin1N@telkomsa.net

Environmental Assessment Practitioner
Batach Holding
Lucky Maimanga
Cell: 061 356 8423
Fax: 086 769 6758
lucky@batach.co.za

To ensure that you are registered as an Interested and Affected Party or to obtain further information please submit your name and contact details to the consultant above

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT: APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO.107 OF 1998) AND EIA REGULATIONS 2014 AS AMENDED IN APRIL 2017: PROPOSED CONSTRUCTION AND OPERATION OF A CAUSTIC-SODA MAKE-UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE.

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CONTACT DETAILS OF PUBLIC PARTICIPATION TEAM AND EAP

Public Participation Officer
Rotondwa Environmental Services & Consulting
Calvin Nemhaulu
Cell: 076 240 8750
Fax: 013 656 2233
calvin17N@telkomsa.net

Environmental Assessment Practitioner
Batach Holding
Lacky Mamanga
Cell: 081 356 8423
Fax: 086 769 6758
lacky@batach.co.za

To ensure that you are registered as an Interested and Affected Party or to obtain further information please submit your name and contact details to the consultant above

APPENDIX 5

Calvin Netshaulu

From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: Wednesday, 09 June 2021 09:58
To: 'Simon.Kwili@ekurhuleni.gov.za'
Cc: 'vhuhonemp@gmail.com'; 'lucky@batach.co.za'
Subject: ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED CONSTRUCTION OF A CAUSTIC SODA-MAKE UP PLANT IN KEMPTON PARK

Good Morning Councillor Kwili

This email serves to confirm our meeting for the above project as follows:

Date: 11 June 2021
Venue: Phumulong pay-point
Time: 10:00am

Regards

Calvin Netshaulu *(Cert.Sci.Nat)*
Rotondwa Environmental Services and Consulting
P.O.Box 12822
Leraatsfontein, 1038
Tel: 013 656 1212
Fax: 013 656 2233
Cell: 076 240 8750
Email: *calvinTN@telkomsa.net*

Rotondwa Environmental
Service and Consulting

From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: Monday, 07 June 2021 12:22
To: Simon.Kwili@ekurhuleni.gov.za
Subject: PROPOSED CAUSTIC SODA MAKE-UP PLANT PROJECT IN KEMPTON PARK.

Good day Cllr Kwili

Please note that due to COVID we are planning to have a virtual meeting. Could you please assists if you have other stakeholders you would like us to add.

Your response is highly appreciated

Regards

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATION OF CAUSTIC SODA MAKE UP PLANT

MEETING ATTENDANCE REGISTER

DATE: 11 JUNE 2021

TITLE	FIRST NAME	SURNAME	ORGANISATION	POSTAL ADDRESS	CONTACT DETAILS		SIGNATURE
Mr	NDIVHUHO	NENGBEDA			Tel No:		
					Fax No:		
					Cell No:	0797065824	
Mr.	Simon	Kwili	WARD CLLR	1843 9419	E-mail:	0729141553	
					Tel No:		
					Fax No:		
					Cell No:		
					E-mail:		
					Tel No:		
					Fax No:		
					Cell No:		
					E-mail:		

Focus Group Meeting

Proposed Caustic Soda Make-Up Plant

Friday, 11 June 2021

10H00

Venue: Phomolong Pay point- Tembisa

Attendees

Mr Ndivhuho Nengovhela [NN]	Rotondwa Environmental Services & Consulting
Mr Simon Kwili [SK]	Ekurhuleni Municipality (Local Ward cllr)

Opening and Welcoming:

Mr Ndivhuho Nengobela [**NN**] opened the meeting and welcomed everyone present.

Safety Evacuation/Briefing:

Safety evacuation was not explained.

Introductions & Apologies:

All attendees introduced themselves.

No apologies, everyone invited was present in the meeting.

Purpose of the Focus Group Meeting and Public Participation Process:

NN explained that the purpose of the meeting is to:

- Provide information regarding the proposed project
- Receive inputs in the form of comments and issues of concern relating to the proposed project
- Record comments, issues and concerns
- Agree on the way forward

NN explained project background and the public participation process. He assured the meeting that comments received will be considered.

SK provided his inputs in the comment sheet. He suggested that the Local SANCO and Pastor's forum should be included as stakeholders. He provided contacts details of SANCO representative who should be invited for future meetings. SK also explained that he will speak to the pastor's forum and provided their inputs.

SK wanted to know if the applicant is BEE compliance. It was explained by NN that the name of the applicant is African Chemicals PTY LTD, they manufacture and distribute chemicals including Caustic Soda across African continent. He was referred to the information that is included in the BID & DSR. The company is BBBEE level 1 compliance and owned by South Africans.

SK asked how many jobs will be created for locals during the construction and operation of the project. It was explained to him that approximately 50 jobs may be created during operation and over 300 temporary jobs during construction phase.

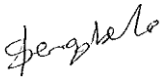
NN explained that due to the risks posed by COVID 19 pandemic, future meetings may be held virtually and invitation will be made in advance. SK suggested focus group meetings.

Comments, inputs, issues and concerns were recorded in the comment sheet.

Conclusion

NN thanks the attendee for his contribution and inputs.

Minutes compiled by: Ndivhuho Nengovhela



12/06/2021

APPENDIX 6

Rotondwa Environmental Services and Consulting

ENQ: Netshaulu N.C
CELL: 0762408750
Reg no: 2017/487376/07
Email: calvinTN@telkomsa.net

Rotondwa environmental
service and consulting

Residential Address
No.42 Walters Avenue
Orchards
Pretoria
0182

Date: 02 June 2021

Dear stakeholder

ENVIRONMENTAL IMPACT ASSESSMENT (SCOPING AND EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATION OF A CAUSTIC SODA MAKE-UP PLANT IN CHLOORKOP, KEMPTON PARK IN GAUTENG PROVINCE

GDARD REFERENCE NUMBER: GAUT 002/20-21/E2748)

AVAILABILITY OF DRAFT SCOPING REPORT AND PLAN OF STUDY

This notice serves to inform interested and affected parties in accordance with National Environmental Management Act, (Act No. 107 of 1998) (NEMA) and EIA Regulations as amended on 07 April 201, that African Chemicals (Pty) Ltd has appointed Batach Holdings as the Environmental Assessment Practitioner (EAP) to submit an application for an Environmental Authorisation for the construction of a Caustic Soda Make-Up plant in Kempton Park, Gauteng Province.

APPLICANT, PROPOSED PROJECT DESCRIPTION AND LOCATION

The Applicant is African Chemicals (Pty) Ltd – an industrial chemical manufacturing, marketing and distributor of caustic soda flakes and pearls (sodium hydroxide), caustic soda (sodium hydroxide), soda ash and hydrochloric acid.

Current production estimates are that the proposed Caustic Soda Make-Up plant will produce approximately 5000 tons of caustic lye per month at 45-50% weight by weight (w/w). The caustic flakes will be delivered in 1000 kg or 1250 kg bulk bags and stored in a warehouse. The Caustic Lye, at a 50% w/w concentration will be stored at 40 degrees Celsius in heated bulk storage tanks to prevent crystallization.

African Chemical's proposed Caustic Soda Make – Up plant has a development footprint of 18758.67 square metres. The plant will be established on the north eastern boundary tip of the NCP Chlorchem site, Chloorkop in the Ekurhuleni Metropolitan Municipality, Gauteng Province. The proposed plant will be the 5th largest source of caustic soda in Southern Africa and designed to be fully automated with a make-up tank fed through weigh feeders which will ensure consistent product quality. The plant will service inland consumers and SADC countries.

THE AUTHORISATION PROCESS

The construction of the proposed Caustic Soda Make Up plant triggers the need for scoping and environmental impact assessment (EIA) process, which will be conducted as per the requirements of the relevant acts and regulations.

PUBLIC REVIEW AND COMMENT ON THE DRAFT SCOPING REPORT

The National Environmental Management Act (NEMA) and EIA Regulations 2014 as amended in April 2017 requires that I&APs be afforded the opportunity to comment on the draft Scoping Report. As part of the Environmental Impact Assessment Process, more specifically the public participation process for this proposed project, the public is invited to review and comment on the draft Scoping Report. The draft Scoping Report is available for review for a 30 day calendar period from **03rd of June 2021** to **04th of July 2021**. The draft Scoping report can be obtained from this websites: www.batach.co.za or www.africhemicals.co.za and from the Kempton Park Public Library (Cnr CR Swart & Pretoria Road).

INVITATION TO PUBLIC MEETING

Due to COVID pandemic, meeting will be virtually. All registered interested and affected parties will receive invitation via email.

CONTACT DETAILS

Public Participation Officer
Rotondwa Environmental Services & Consulting
Calvin Netshaulu
Cell: O76 240 8750
Fax: 013 656 2233
calvinTN@telkosa.net

Environmental Assessment Practitioner
Batach Holding
Lucky Msimanga
Cell: 061 356 8423
Fax: 086 769 6758
lucky@batach.co.za

Your input in this study is highly valued

Regards

Calvin Netshaulu
Public Participation Officer

Calvin Netshaulu

From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: Wednesday, 02 June 2021 14:23
To: Lerato.Selolo@ekurhuleni.gov.za
Subject: CAUSTIC SODA MAKE-UP PLANT PROJECT: AVAILABILITY OF DRAFT SCOPING REPORT FOR PUBLIC REVIEW_PROJECT REF: GAUT 002/20-21/E2748
Attachments: Letter for the Availability of draft Scoping Report and Plan of Study.pdf

Dear stakeholder

This email serves to notify you about the availability of **draft Scoping Report** and **Plan of Study** for the above project as indicated in the attached letter. I will send other documents separately due to the size.

Your participation in this study is greatly valued

Regards

Calvin Netshaulu *(Cert.Sci.Nat)*
Rotondwa Environmental Services and Consulting
P.O.Box 12822
Leraatsfontein, 1038
Tel: 013 656 1212
Fax: 013 656 2233
Cell: 076 240 8750
Email: calvinTN@telkomsa.net

Rotondwa Environmental
Service and Consulting

Calvin Netshaulu

From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: Wednesday, 02 June 2021 14:24
To: Lerato.Selolo@ekurhuleni.gov.za
Subject: CAUSTIC SODA MAKE-UP PLANT PROJECT: AVAILABILITY OF DRAFT SCOPING REPORT FOR PUBLIC REVIEW_PROJECT REF: GAUT 002/20-21/E2748
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Email: *calvinTN@telkomsa.net*

Rotondwa Environmental
Service and Consulting

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From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: Wednesday, 02 June 2021 11:45
To: grant.botha@gauteng.gov.za; MjonaT@dws.gov.za; Thabang.Mokoena@ekurhuleni.gov.za; Sibongile.Mdluli@ekurhuleni.gov.za; Simon.Kwili@ekurhuleni.gov.za; Lerato.Setolo@Ekurhuleni.gov.za; Lkelembe@jra.org.za; Tebogo.Molokomm@gauteng.gov.za; Caroline.Smith@gauteng.gov.za; Caroline.Sithi@gauteng.gov.za
Cc: 'Lucky Msimanga'; 'vhuhone vhuhone'; 'Lerato Mothapo (NR)'; karabomolokwane.986@gmail.com; 'Nicolette Edwards'; 'Brian Roby'
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Herewith also attached is draft scoping report

From: Calvin Netshaulu [mailto:calvinTN@telkomsa.net]
Sent: 02 June 2021 10:53 AM
To: 'grant.botha@gauteng.gov.za'; 'MjonaT@dws.gov.za'; 'Thabang.Mokoena@ekurhuleni.gov.za'; 'Sibongile.Mdluli@ekurhuleni.gov.za'; 'Simon.Kwili@ekurhuleni.gov.za'; 'Lerato.Setolo@Ekurhuleni.gov.za'; 'Lkelembe@jra.org.za'; 'Tebogo.Molokomm@gauteng.gov.za'; 'Caroline.Smith@gauteng.gov.za'; 'Caroline.Sithi@gauteng.gov.za'
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Email: *calvinTN@telkomsa.net*

"External email: Open with Caution"

Dear Stakeholder

Kindly receive attached Newspaper Adverts, Comment Sheet and Letter Accompanied BID.

Regards
Calvin

From: Calvin Netshaulu [mailto:calvinTN@telkomsa.net]
Sent: 02 June 2021 10:59 AM
To: 'Livhuwani.Ndou@transnet.net'; 'delenek@ncp.co.za'; 'JohnnyA@ncp.co.za'; 'fivazogle@telkomsa.net'; 'betsbuys@klap.co.za'; 'rossc@ncp.co.za'; 'barneys@ncp.co.za'; 'dcosijn@absamail.co.za'; 'letsokf@dwarf.gov.za'; 'lechateau@mweb.co.za'; 'bongitn@telkomsa.net'; 'chloorkop-gau@intekom.co.za'; 'etiennea@joburg.org.za'; 'ruth.siminya@gauteng.gov.za'
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Rotondwa Environmental
Service and Consulting

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From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: Wednesday, 02 June 2021 11:44
To: Livhuwani.Ndou@transnet.net; delenek@ncp.co.za; JohnnyA@ncp.co.za; fivazogle@telkomsa.net; betsbuys@klap.co.za; rossc@ncp.co.za; barneys@ncp.co.za; dcosijn@absamail.co.za; letsokf@dwarf.gov.za; lechateau@mweb.co.za; bongitn@telkomsa.net; chloorkop-gau@intekom.co.za; etiennea@joburg.org.za; ruth.siminya@gauteng.gov.za
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Rotondwa Environmental
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From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: Friday, 04 June 2021 10:37
To: 'Yuza Chabalala Transnet Freight Rail PTA'; info@batach.co.za
Cc: 'Pumelela Mabeka Transnet Freight Rail JHB'; 'Zanele Manyathi Transnet Freight Rail JHB'; 'Livhuwani Ndou Transnet Freight Rail JHB'; 'Lionel Beukes Transnet Freight Rail JHB'
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Good day

Kindly receive attached draft scoping report for the above project

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From: Calvin Netshaulu [mailto:calvinTN@telkomsa.net]
Sent: 04 June 2021 10:03 AM
To: 'Yuza Chabalala Transnet Freight Rail PTA'; 'info@batach.co.za'
Cc: 'Pumelela Mabeka Transnet Freight Rail JHB'; 'Zanele Manyathi Transnet Freight Rail JHB'; 'Livhuwani Ndou Transnet Freight Rail JHB'; 'Lionel Beukes Transnet Freight Rail JHB'
Subject: RE: CAUSTIC SODA MAKE-UP PLANT PROJECT: AVAILABILITY OF DRAFT SCOPING REPORT FOR PUBLIC REVIEW_PROJECT REF: GAUT 002/20-21/E2748

Good Morning

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From: Yuza Chabalala Transnet Freight Rail PTA [mailto:Yuza.Chabalala@transnet.net]
Sent: 03 June 2021 01:06 PM
To: info@batach.co.za; calvinTN@telkomsa.net
Cc: Pumelela Mabeka Transnet Freight Rail JHB; Zanele Manyathi Transnet Freight Rail JHB; Livhuwani Ndou Transnet Freight Rail JHB; Lionel Beukes Transnet Freight Rail JHB
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Subject: RE: CAUSTIC SODA MAKE-UP PLANT PROJECT: AVAILABILITY OF DRAFT SCOPING REPORT FOR PUBLIC REVIEW_PROJECT REF: GAUT 002/20-21/E2748
Attachments: PLAN OF STUDY FOR CAUSTIC SODA _EIA.pdf

Dear stakeholders

Kindly receive plan of study for the above project.

Regards
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Cc: 'Pumelela Mabeka Transnet Freight Rail JHB'; 'Zanele Manyathi Transnet Freight Rail JHB'; 'Livhuwani Ndou Transnet Freight Rail JHB'; 'Lionel Beukes Transnet Freight Rail JHB'
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Cc: Pumelela Mabeka Transnet Freight Rail JHB; Zanele Manyathi Transnet Freight Rail JHB; Livhuwani Ndou Transnet Freight Rail JHB; Lionel Beukes Transnet Freight Rail JHB
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Regards

APPENDIX 7

Vacancies

0802 Accounting
0805 Admin / Reception / Switchboard
0808 Banking / Insurance
0810 Information Technology
0814 CV Services
0816 Drivers / Couriers
0819 Training / Courses
0820 General
0825 Hairdressing / Beauty
0826 Hotel / Catering
0827 HR / Personnel
0828 Legal
0830 Management
0835 Medical
0840 Part Time / Temps
0845 Personnel Agencies
0850 Professional
0853 Retail
0855 Sales / Marketing
0860 Security
0865 Senior Citizens
0867 Teaching / Educators
0870 Technical
0875 Trade
0880 Travel / Tourism
0885 Work Overseas

0805 ADMIN / RECEPTION / SWITCHBOARD

JUNIOR ADMIN CLERK

Needed in the Benoni area. Computer literate.

Please email CV`s to salesemb5 @gmail.com.

ZW027805

0820 GENERAL

Fast Growing Private Assessing Company In Bedfordview Has The Following Vacancy:

MOTOR ASSESSORS WANTED

Panelbeating experience required.

EMAIL CV'S TO pa@netassess.co.za

Please attach a copy of your ID with your qualifications.

ZW027510J

JUNIOR GRAPHIC DESIGNER

Graphic Dept.
CorelDraw.
Email CV to natalie @signco.co.za
Shortlisted will be contacted only

RN1244

WORKSHOP

Experienced vinyl applicator, Rigger, General Workshop
Email CV to natalie @signco.co.za
Shortlisted will be contacted only

RN1244

QUALIFIED BOILER MAKER WITH EXPERIENCE IN STAINLESS STEEL

Small manufacturing company in Modderfontein requires a qualified boiler maker with experience in stainless steel. Qualifications will be verified. No chancers.
Email CVs to wilhelm@pacuthbert.co.za Tel: 011 452 5806

0855 SALES / MARKETING

TRAINEE MANAGERS

Int based Co expanding 20 reps/ man needed for jnr /snr & top management. To start imm. No exp nec. Own car a MUST. **R12000 to start + High comm + Inc & trips + Petrol incentives.** Call 011 609 2119 SMS or WhatsApp name area/age to 064 378 7651

ZW027800

WAKE UP INSPIRED TO WORK!

With ambition and discipline, you can lead an executive lifestyle in a few short years! With over 35 years` experience, the multiple award-winning Intro Real Estate offers you world class training and support. **Sales experience a must.** Own vehicle. Over 30 years. Commission based. Join our dynamic team today!

Email recruitment@introrealestate.co.za

RN124468

0875 TRADE

ALUMINIUM TIG (ARGON) WELDER REQUIRED

Must have min 5 Years experience and Traceable references. Send CV to adele@ulengineering.co.za

ZH094165J

Employment

0895 DOMESTIC EMPLOYMENT WANTED

ADELINA Seeks full time work. Mon-Fri. Sleep in. Child Care. 062 127 5597

JH052403

ELIZABETH seeks p/f time domestic work, Mon - Fri, sleep in/out, cooking, child care + refs.083 271 9479.

RN124502

GLORIA seeks full/part tim domestic work. Mon - Fri. Sleep in/out, cooking, child care. Refs. 078 993 7829

TH120297

JANE req full/part time domestic work, Mon- Fri, sleep out, child care. 082 7623 893/0639183875

ZH094147

MARIA seeks full time domestic work, sleep in, cooking, child care, refs avail. 082 078 5069

RN124509

MARIE soek deeltydse werk, Maandag, Woensdag, Vrydag, uitslaap, kindersorg + verwings. 067 776 3654 Praat net Afrikaans.

RN124492

MARY seeks full time domestic work, Mon - Fri, sleep in/out, cookoing, child care + refs. 067 084 1442.

RN124499

NETSAI seeks part time domestic work, Mon - Sun, sleep out, child care + refs. 072 671 6351

TH120298

PERCY 073-761-8195 /066-218-3318 Seeks full - time work. Monday to Friday. Sleep in. House keeping. Ref avail.

VP033505

STEPHINA seeks part/full time domestic work, Mon - Fri, sleep out, cooking, child care + refs. 060 305 4581

RN124501

VICTORIA req full time work, Mon - Fri, sleep out, cooking, child care, refs. 076 064 3008

RN124503

VICTORIA seeks part time domestic work. Mon, Wed, Fri. Sleep out. Refs. 073 862 3673

TH120299

0897 GARDENER EMPLOYMENT WANTED

ELIAS seeks painting & gardening work. Mon, Wed, Thur. Sleep in/out. Refs. 078 433 8311

TH120300

legals

- auctioneers
- legal notices
- tenders

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT (SCOPING AND EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATION OF A CAUSTIC SODA MAKE UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE

PROJECT REFERENCE NUMBER – GAUT: GAUT 002/20-21/E2748

This notice serve to inform interested and affected parties in accordance with National Environmental Management Act, (Act No. 107 of 1998) (*NEMA) and EIA Regulations as amended on 07 April 2021, that African Chemicals (Pty) Ltd has appointed Batach Holdings as an Environmental Assessment Practitioner (EAP) to submit an application for an Environmental Authorisation for the construction of a Caustic Soda Make-Up plant in Kempton Park, Gauteng Province

APPLICANT, PROPOSED PROJECT DESCRIPTION AND LOCATION

The Applicant is African Chemicals (Pty) Ltd – an industrial chemical manufacturing, marketing and distributor of caustic soda flakes and pearls (sodium hydroxide), caustic soda (sodium hydroxide), soda ash and hydrochloric acid.

Current production estimates are that the proposed Caustic Soda Make-Up plant will produce approximately 5000 tonne of caustic lye per month at 45-50% weight by weight (w/w). The caustic flakes will be delivered in 1000 kg or 1250 kg bulk bags and stored in a warehouse. The Caustic Lye, at a 50% w/w concentration will be stored at 40 degrees Celsius in heated bulk storage tanks to prevent crystallization.

African Chemical's proposed Caustic Soda Make – Up plant has a development footprint of 18758.67 square metres. The plant will be established on the north eastern boundary tip of the NCP Chlorchem site, Chloorkop in the Ekurhuleni Metropolitan Municipality, Gauteng Province. The proposed plant will be the 5th largest source of caustic soda in Southern Africa and designed to be fully automated with a make-up tank fed through weigh feeders which will ensure consistent product quality. The plant will service inland consumers and SADC countries.

THE AUTHORISATION PROCESS

The construction of the proposed Caustic Soda Make Up plant triggers the need for scoping and environmental impact assessment (EIA) process, which will be conducted as per the requirements of the relevant acts and regulations

AVAILABILITY OF DRAFT SCOPING REPORT AND PLAN OF STUDY

The National Environmental Management Act (NEMA) and EIA Regulations 2014 as amended in April 2017 requires that I&APs be afforded the opportunity to comment on the draft Scoping Report. As part of the Environmental Impact Assessment Process, more specifically the public participation process for this proposed project, the public is invited to review and comment on the draft Scoping Report. The draft Scoping Report is available for review for a 30 day calendar period from **03 June 2021 to 04 July 2021**. The draft Scoping report can be obtained from this websites: www.batach.co.za or www.africhemicals.co.za and from the Kempton Park Public Library (Cnr CR Swart & Pretoria Road),

INVITATION TO PUBLIC MEETING

Due to COVID Pandemic meeting will be virtually. All registered stakeholders will be invited via emails.

Contact person: Netshaulu Calvin | **Telephone:** +27 76 240 8750 | **Fax:** 086 551 9788 | **Email:** CalvinTN@telkomsa.net | **Physical Address:** 42 Walters Avenue, The Orchards, 0182

RN124455J

A golfer tees off for the Kempton Park Open Champion Golf Day.

New lease on life for golf club

Puleng Sekabate

New management at the Kempton Park Golf Club aims to make the local golf course one of the top courses in Ekurhuleni.

Such goals serve as much-needed positivity and encouragement following the club's episodes of unfortunate incidents including people being held up at gunpoint and robberies at the club.

Crime was not the only hard knock, as the club was also severely affected by the impacts of Covid-19.

"We were negatively affected by Covid-19 and as a result, we lost five of our greens and had serious damage to others. Due to the damaged greens the club also had to postpone the club championships," said Robbie Mudde, vice club captain.

"We are working towards bringing the club back to life and changing the negativity that might have surrounded the club."

The new management is walking their talk of resuscitating the club.

"Thank you to our handful of members that helped us with putting in new greens. It was a lot of hard work from Jaco and the green staff," said club captain, Hannes Beeslaar.

"We also received donations from various members during hard lockdown, which we are truly grateful for. We have a positive executive committee that is very hands-on to make the club a success once again."

The club hosted a successful Kempton Park Open Champion Golf Day last Wednesday (May 26).

"We decided to officially open the greens for the first time through the golf day and we want to make it an annual event," added Beeslaar.

"The open day also serves as a fund-raiser and the funds raised will go towards money for extra transport on the golf course.

"With the opening of the new green, we invite the public to enjoy the newly revamped golf course. It is back to its old self, if not better."

The club is undergoing a serious facelift that includes the upgraded clubhouse entertainment area with a new braai area.

"Our security has been upgraded. We are working on uplifting the security at the gate, while implementing a tag system," explained Mudde.

"Catering facilities have also been upgraded, which includes a pizza oven and a full-on menu. We also have a takeaway menu and exciting specials such as the captain special and full carvery. We have a variety of revamped function halls for conferences, parties and more."

People can contact the club for specials and bookings.

Golfers gathered for the open day on a warm sunny day. Gerry Slabbert took first place with 43 points (OCO) followed by Tila van Heerden in second place on 43 points and Dries Fourie wrapped up the podium position with 42 points (OCO).

"Well done to all the winners and a big thank you to all our sponsors," concluded Mudde.

The club is open every day except on Tuesdays. For more information or bookings contact the club on 011 394 8911 or email bondetienne88@gmail.com

Find them on Facebook or visit their website at www.kemptonparkgolfclub.co.za

Golfers were excited to take to the greens again.

NOTICE

NOTICE OF INTENT TO APPLY FOR A SECTION 24G RECTIFICATION ENVIRONMENTAL AUTHORISATION AND AN AEL THROUGH A SECTION 22A PROCESS

GDARD Reference: TBC
CoE Reference: TBC
Environmental Edge Reference: MST-P-10451

In terms of Section 24G of the National Environmental Management Act, 1998 (NEMA) (Act No.107 of 1998) as amended, and Chapter 6 of the Environmental Impact Assessment (EIA) Regulations, Government Notice No. R326 of 7 April 2017, as well as Section 22A of the National Environmental Management: Air Quality Act (NEM:AQA) (Act No. 39 of 2004), as amended, notice is hereby given of the intent to carry out the following activity.

DESCRIPTION OF PROJECT:
The continuation of metal casting activities, which commenced without the necessary environmental authorisations, at the existing East Rand Alloys Cc facility. Activities require an Atmospheric Emissions License (AEL) and thus also requiring an Environmental Authorisation (EA) through a Section 24G process as per Activity 6 of Listing Notice 2 (GN R. 325 of 2017). Activity 6 applies to the development as it triggers sub-category 4.9 & 4.10 of Category 4 (Metallurgical Industries) of Section 21 of NEM:AQA. Thus, Section 22A shall also be followed thereafter.
PROJECT APPLICANT:
East Rand Alloys Cc
PROJECT LOCATION:
Cnr. Lemmer Road and Cupreous Street, Vulcania, Brakpan, City of Ekurhuleni, Gauteng Province.
Geographical coordinates: 26°15'22.1"S 28°22'04.1"E
INVITATION TO REGISTER & COMMENT:
Please kindly use the details below to register as an Interested and/or Affected Party (I&AP) and/or to obtain additional information regarding the project. Please submit your name, contact details and the interest which you have in the project within twenty (20) days (including weekends but excluding public holidays) from the date of this notice.
Environmental Edge (Pty) Ltd
Cyril Kamogelo Legong
Telephone: +27 10 442 4965
Alternative number: +27 71 184 6889
Email: info@environmentaledge.co.za

Competent Authority
Gauteng Department of Agriculture and Rural Development (GDARD)
56 Eloff Street, Umnotho House, Johannesburg
Telephone: 011 240 2500
Email: Maryjane.Ramahlodi@gauteng.gov.za

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT (SCOPING AND EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATION OF A CAUSTIC SODA MAKE UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE

PROJECT REFERENCE NUMBER – GAUT: GAUT 002/20-21/E2748

This notice serve to inform interested and affected parties in accordance with National Environmental Management Act, (Act No. 107 of 1998) (*NEMA) and EIA Regulations as amended on 07 April 2021, that African Chemicals (Pty) Ltd has appointed Batach Holdings as an Environmental Assessment Practitioner (EAP) to submit an application for an Environmental Authorisation for the construction of a Caustic Soda Make-Up plant in Kempton Park, Gauteng Province.

APPLICANT, PROPOSED PROJECT DESCRIPTION AND LOCATION

The Applicant is African Chemicals (Pty) Ltd – an industrial chemical manufacturing, marketing and distributor of caustic soda flakes and pearls (sodium hydroxide), caustic soda (sodium hydroxide), soda ash and hydrochloric acid.

Current production estimates are that the proposed Caustic Soda Make-Up plant will produce approximately 5000 tonne of caustic lye per month at 45-50% weight by weight (w/w). The caustic flakes will be delivered in 1000 kg or 1250 kg bulk bags and stored in a warehouse. The Caustic Lye, at a 50% w/w concentration will be stored at 40 degrees Celsius in heated bulk storage tanks to prevent crystallization.

African Chemical's proposed Caustic Soda Make – Up plant has a development footprint of 18758.67 square metres. The plant will be established on the north eastern boundary tip of the NCP Chlorchem site, Chloorkop in the Ekurhuleni Metropolitan Municipality, Gauteng Province. The proposed plant will be the 5th largest source of caustic soda in Southern Africa and designed to be fully automated with a make-up tank fed through weigh feeders which will ensure consistent product quality. The plant will service inland consumers and SADC countries.

THE AUTHORISATION PROCESS

The construction of the proposed Caustic Soda Make Up plant triggers the need for scoping and environmental impact assessment (EIA) process, which will be conducted as per the requirements of the relevant acts and regulations.

AVAILABILITY OF DRAFT SCOPING REPORT AND PLAN OF STUDY

The National Environmental Management Act (NEMA) and EIA Regulations 2014 as amended in April 2017 requires that I&APs be afforded the opportunity to comment on the draft Scoping Report. As part of the Environmental Impact Assessment Process, more specifically the public participation process for this proposed project, the public is invited to review and comment on the draft Scoping Report. The draft Scoping Report is available for review for a 30 day calendar period from **03 June 2021** to **04 July 2021**. The draft Scoping report can be obtained from this websites: www.batach.co.za or www.africhemicals.co.za and from the Kempton Park Public Library (Cnr CR Swart & Pretoria Road),

INVITATION TO PUBLIC MEETING

Due to COVID Pandemic meeting will be virtually. All registered stakeholders will be invited via emails.

Contact person: Netshaulu Calvin | **Telephone:** +27 76 240 8750 | **Fax:** 086 551 9788 | **Email:** CalvinTN@telkomsa.net | **Physical Address**: 42 Walters Avenue, The Orchards, 0182

HERBALIST

HEALTH AND BEUTY

CARWASH

LAUNDY SERVICES

APPENDIX 8

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATION OF CAUSTIC SODA MAKE UP PLANT

PROOF OF DELIVERY (DRAFT SCOPING REPORT AND PLAN OF STUDY)

DATE: 03 JUNE 2021

TITLE	FIRST NAME	SURNAME	ORGANISATION	POSTAL ADDRESS	CONTACT DETAILS	
Mr	Andiswa	Majola	Ekuhuleni		Tel No:	011 999 6122
					Fax No:	
					Cell No:	
					E-mail:	
					Tel No:	
					Fax No:	
					Cell No:	
					E-mail:	
					Tel No:	
					Fax No:	
					Cell No:	
					E-mail:	

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATION OF CAUSTIC SODA MAKE UP PLANT

PROOF OF DELIVERY (DRAFT SCOPING REPORT AND PLAN OF STUDY)

DATE: 03 JUNE 2021

TITLE	FIRST NAME	SURNAME	ORGANISATION	POSTAL ADDRESS	CONTACT DETAILS	
MR	SIPHO	Zwane	Heritage	35 Rissik Street	Tel No:	
					Fax No:	
					Cell No:	0665197973
					E-mail:	
					Tel No:	
					Fax No:	
					Cell No:	
					E-mail:	
					Tel No:	
					Fax No:	
					Cell No:	
					E-mail:	

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATION OF CAUSTIC SODA MAKE UP PLANT

PROOF OF DELIVERY (DRAFT SCOPING REPORT AND PLAN OF STUDY)

DATE: 03 JUNE 2021

TITLE	FIRST NAME	SURNAME	ORGANISATION	POSTAL ADDRESS	CONTACT DETAILS	
MR	Etienne	Strydom	Kempton Library		**Tel No:**	011 999 3956
					Fax No:	
					Cell No:	
					E-mail:	
					Tel No:	
					Fax No:	
					Cell No:	
					E-mail:	
					Tel No:	
					Fax No:	
					Cell No:	
					E-mail:	

APPENDIX 9

Calvin Netshaulu

From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: Wednesday, 23 June 2021 10:36
To: 'ernestmlangeni@gmail.com'
Cc: 'Lucky Msimanga'; 'vhuhone vhuhone'
Subject: FW: CONFIRMATION OF MEETING FOR THE PROPOSED CONSTRUCTION AND OPERATION OF A CAUSTIC SODA MAKE-UP PLANT PROJECT

Good day Mr Mlangeni

I am writing to confirm our meeting as indicated below:

Date: 25 June 2021
Venue: 3838 Seerane Street (Church)
Time: 11:00am

Your participation is greatly valued

Regards

Calvin Netshaulu *(Cert.Sci.Nat)*
Rotondwa Environmental Services and Consulting
P.O.Box 12822
Leraatsfontein, 1038
Tel: 013 656 1212
Fax: 013 656 2233
Cell: 076 240 8750
Email: *calvinTN@telkomsa.net*

Rotondwa Environmental
Service and Consulting

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATION OF CAUSTIC SODA MAKE UP PLANT

MEETING ATTENDANCE REGISTER

DATE: 25/06/2021

TITLE	FIRST NAME	SURNAME	ORGANISATION	POSTAL ADDRESS	CONTACT DETAILS		SIGNATURE
Mr	NDIVHUHO	NENSOBELA	Rotendwa Environmental Consulting	42 Walters Avenue, The Orchards	Tel No:		
					Cell No:	079 706 7624	
					E-mail:	vhuhorempo@gmail.com	
Mr	Siyabonga	Mangal	ANC	10 Dunlop St Chloorkop	Tel No:		
					Cell No:	0794119166	
					E-mail:	mangalsiyabonga@yahoo.com	
Miss	MANTOA	MABITSI	ANC/SANCO	5134/17 Phomolong	Tel No:	072 769 4590	
					Cell No:		
					E-mail:		
MR	ERNEST	MLANGENI	SANCO	3616 PMC	Tel No:		
					Cell No:	0796872417	
					E-mail:		
MR	DIROHOLO ALFRED	SEPIRWA	SANCO	11 DUNLOP STREET	Tel No:		
					Cell No:	0799191620	
					E-mail:	alfred.sepirwa58@gmail.com	
MR	Abel	Mabelane	Sanco	4476 Phomolong	Tel No:	053 [illegible] 2625	
MS	Enie	CHAUKE.	SANCO	1806 Kgaboa Stre	Cell No:	073 0234916	
					E-mail:	ennic45@gmail.com	
mR	Lizwi	ZumA	SAMCO	2579/23 Phomolong	Tel No:	0	
					Cell No:	0762757401	
					E-mail:	trustlordthi@gmail.com	
					Tel No:		

Focus Group Meeting

Proposed Caustic Soda Make-Up Plant

Friday, 25 June 2021

11H00-12H30

Venue: Phomolong Pay point- Tembisa

Attendees

1.	Mr Ndivhuho Nengovhela [NN]	Rotondwa Environmental Services & Consulting
2.	Mr Siyabonga Mangali [SM]	ANC
3.	Miss Matoa Mabitsi (MM)	ANC (SANCO)
4.	Mr Ernest Mlangeni(EM)	SANCO
5.	Mr Diroholo Alfred Sepirwa (AS)	SANCO
6.	Mr Abele Mabelane (AM)	SANCO
7.	Ms Enie Chauke (EC)	SANCO
8.	Mr Lizwi Zuma (LZ)	SANCO

Agenda

1. Opening & Welcome
2. Safety Evacuation/Brief
3. Introduction
4. Apologies
5. Purpose of the meeting
6. Questions, Answers and Inputs
7. Announcements
8. Closure

1. Opening and Welcoming:

Mr Ernest Mlangeni [**EM**] opened the meeting and welcomed everyone present.

2. Safety Evacuation/Briefing:

Safety evacuation was explained by **EM**. He indicated where the bathrooms are and that in case of any emergency everyone must walk calmly to the emergency assembly point located at the parking area. He indicated that no emergency drill was planned for the day.

3. Introductions:

All attendees introduced themselves.

4. Apologies:

Cllr Simon Kwili sent his apology. He could not attend due to another meeting that was taking place at the same time. He sent a **SM** to represent him in the meeting.

5. Purpose of the Meeting & Discussion:

[NN] explained that the purpose of the meeting is to:

5.1. Provide the Key Stakeholders with information regarding the proposed project

NN explained that African Chemicals is proposing to construct and operate a Caustic-Make-up plant. The plant will be located within the NCP Chlorochem properties in Chloorokop. African Chemicals wishes to import dry caustic, transport it to the newly proposed facility in Johannesburg, Chloorkop where it can be dissolved into lye form and loaded into customer tanker trucks or Intermediate, Bulk Containers (IBC) containers. The dissolution, storage and loading of all this form part of the Caustic Make-up Plant. It was indicated that the proposed project requires an application for Environmental Authorization in terms of the National Environmental Management Act (NEMA), No 107 of 1998 and the EIA regulations 2014 as amended on 07 April 2017

5.2. Provide overview of where we are in Environmental Impact Assessment (EIA) process

NN indicated that we are in the public participation phase where we are engaging Stakeholders including I&APs.

5.3. Present roles and input required from the I&APs going forward

NN explained the roles of I&APs in the EIA process as follows:

- ✓ Raise issues and/or concerns if any
- ✓ Local knowledge is key
- ✓ Provide input on proposed project
- ✓ We will provide stakeholders with the opportunity to partner with decision maker
- ✓ Review documents such as S&EIR & addenda (specialist reports)
- ✓ Key document input point –this will be the result of all work done
- ✓ Participate in meetings, open day and announcements
- ✓ Provide above inputs within specified legislated timeframes

5.4. Provide overview of the Environmental Process and where Public Participation fits in

The environmental authorization process was explained in the meeting. It was indicated that the project can't commence without an environmental authorization. The public was encouraged to review the DSR that is available at the Phumulong Library. They were encouraged to provide inputs and comments within the situated timeframe of 30days.

6. Provide opportunity for stakeholders to seek clarity and to provide ongoing input into project

Everyone in the meeting was encouraged to ask questions, make comments and asks questions

7. Record comments, issues and concerns

NN explained that comments received will be recorded & considered. Those in the meeting were also encouraged to provide their detailed comments and inputs in the provided comment sheet.

NN explained that due to the risks posed by COVID 19 pandemic, future meetings if necessary, may be held virtually and invitation will be made in advance.

8. Inputs, questions, answers and comments

SK asked how many jobs will be created for locals during the construction and operation of the project.

Name	Question/Input/Comments/suggestion	Answer
Mr Alfred Sepirwa	Is African chemicals BBBEE compliance	NN that the name of the applicant is African Chemicals PTY LTD, they manufacture and distribute chemicals including Caustic Soda across African continent. He was referred to the information that is included in the BID & DSR. The company is BBBEE level 1 compliance and owned by South Africans.
Mr Ernest Mlangeni	How many jobs will be created during construction & operation	It was explained to him that approximately 50 jobs may be created during operation and over 300 temporary jobs during construction phase.
Mr Alfred Sepirwa	He suggested that locals must be prioritized for jobs. It would be unfair to bus people from other areas when skills required are available within the local community. Supply chain must prioritize locals for supply of goods and services. Busing people from outside the municipality will have a negative social impact. It may lead to mushrooming of shacks, theft and conflicts with locals. He suggested that African Chemicals must empower the local businesses. AP also suggested that students from local colleges must be prioritised for in service trainings. AP indicated that based on available information, environmental impacts of the project will be very minimal.	
Mr Lizwi Zuma	LZ mentioned that it would have been beneficial if they can have their own safety rep within the project who could report back to them on a regular basis.	

9. **Announcements**

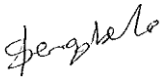
EM indicated that as SANCO, they are going back to the community to provide more information about the project

10. Closure

Mr Ernest Mlangeni thanked everyone who attended the meeting & appreciated the presentation. He further indicated that comments sheet that were issued in the meeting will only be provided back on the Monday, 28 June 2021.

The contact details of the EAP was provided.

Minutes compiled by: Ndivhuho Nengovhela



25/06/2021

Calvin Netshaulu

From: Batach Holdings Admin <info@batach.co.za>
Sent: Friday, 18 June 2021 17:17
To: nicky@tigertruck.co.za; Brian@tigertruck.co.za; denelek@ncp.co.za; Hazelm@ncp.co.za; lebohangt@ncp.co.za; Dumisanis@ncp.co.za; Taona.shumba@oarona.co.za; David.letsoalo@oarona.co.za; Sergio.burelli@proprocess.co.za; joubert@j7royalgroup.co.za; Jovic.vladimir@gmail.com; mike@riscom.co.za; barnes@ncp.co.za; dcosijn@absamail.co.za; lechateau@mweb.co.za; bongitn@telkomsa.net; chloorkop-gau@intekom.co.za; etiene@joburg.gov.za; delno@telkomsa.net; calvinTN@telkomsa.net; Thabang.Mokoena@ekurhuleni.gov.za; 'Tumisang Masinge'; Sibongile.Mdluli@ekurhuleni.gov.za; Matome.Magolela@ekerhuleni.gov.za; Simon.Kwili@ekurhuleni.gov.za; Lerato.Setolo@ekurhuleni.gov.za; MALESELA.SEHONE2@gauteng.gov.za; MULALO.MUKWEVHO2@gauteng.gov.za; Tobogo.Molokomme@gauteng.gov.za; grant.bothe@gauteng.gov.za; Lkelembe@gauteng.gov.za; mudauk@dws.gov.za; johan.moolman@proprocess.co.za; Caroline.Smith@gauteng.gov.za; MpthapoL@nra.co.za; Livhuwani.Ndou@transnet.net; MjonaT@dws.gov.za; Ruth.Semenya@gauteng.gov.za; karabomolokwane.986@gmail.com; 'Muvhulawa Rasebetshela'; Eernestmlangeni161@gmail.com; Ibgcreations12@gmail.com; Monde65 @gmail.com; Ruth.Siminya@gauteng.gov.za; 'Gillian Edworthy'; lucky@batach.co.za; MothapoL@nra.co.za; Lkelembe@jra.org.za; grant.botha@gauteng.gov.za; Matome.Magolela@ekurhuleni.gov.za; lerato.selolo@ekurhuleni.gov.za
Cc: 'Lesiba Gwangwa'
Subject: Invitation for Meeting for the Proposed Construction and Operation of the Caustic Make-Up Plant - Public Participation Meeting

Importance: High

Good day stakeholder,

You are kindly reminded of the Public Participation **virtual meeting** that will be held as per the details below. May you kindly Accept the or Decline the invitation in order for the team to register your participation.

Details of the meetings Link are:
You're invited to a Teams meeting!

Meeting

https://teams.microsoft.com/l/meetup-

join/19:gxYXQBzpz6jHlMMEVLzw0xmzcC0_96yfIKwrTAJXW001@thread.tacv2/1624027995286?context=%7B%22Tid%22:%229a833c6f-eba4-468f-be72-dcf3d89967e8%22,%22Oid%22:%22aa739417-1122-4c50-b6fe-12bac2006be3%22%7D

Tap on the link or paste it in a browser to join.

The meeting will be held as follows:-

Day: 21 June 2021
Time: 14H00
Place: Ms Teams

The MS TEAMS LINK WILL FOLLOW SOON!

-----Original Appointment-----
From: Batach Holdings Admin <info@batach.co.za>
Sent: Thursday, June 17, 2021 4:46 PM
To: 'nicky@tigertruck.co.za'; 'Brian@tigertruck.co.za'; 'denelek@ncp.co.za'; 'Hazelm@ncp.co.za'; 'lebohangt@ncp.co.za'; 'Dumisanis@ncp.co.za'; 'Taona.shumba@oarona.co.za'; 'David.letsoalo@oarona.co.za'; 'Johan.moolman@process.co.za'; 'Sergio.burelli@proprocess.co.za'; 'joubert@j7royalgroup.co.za'; 'Jovic.vladimir@gmail.com'; 'mike@riscom.co.za'; 'barnes@ncp.co.za'; 'dcosijn@absamail.co.za'; 'lechateau@mweb.co.za'; 'bongitn@telkomsa.net'; 'chloorkop-gau@intekom.co.za'; 'etienea@joburg.org.za'; 'delno@telkomsa.net'; 'calvinTN@telkomsa.net'; 'Thabang.Mokoena@ekurhuleni.gov.za'; 'Tumisang Masinge'; 'Sibongile.Mdluli@ekurhuleni.gov.za'; 'Matome.Magolela@ekerhuleni.gov.za'; 'Simon.Kwili@ekurhuleni.gov.za'; 'Lerato.Setolo@ekurhuleni.gov.za'; 'MALESELA.SEHONE2@gauteng.gov.za'; 'MULALO.MUKWEVHO2@gauteng.gov.za'; 'Tobogo.Molokomme@gauteng.gov.za'; 'grant.bothe@gauteng.gov.za'; 'Lkelembe@gauteng.gov.za'; 'mudauk@dws.gov.za'; 'Caroline.Smith@gauteng.gov.za'; 'MpthapoL@nra.co.za'; 'Livhuwani.Ndou@transnet.net'; 'MjonaT@dws.gov.za'; 'Ruth.Semenya@gauteng.gov.za'; 'karabomolokwane.986@gmail.com'; 'Muvhulawa Rasebetshela'; 'Gillian Edworthy'; 'lucky@batach.co.za'
Subject: Invitation for Meeting for the Proposed Construction and Operation of the Caustic Make-Up Plant - Public Participation Meeting
When: Monday, June 21, 2021 2:00 PM-3:30 PM (UTC+02:00) Harare, Pretoria.
Where: MS TEAMS

Good day all

African Chemicals hereby invites you to a Public Participation Meeting for the Proposed Construction and Operation of the Caustic Soda Make-up Plant.

You are hereby identified as an important stakeholder to make meaningful contribution to the aforementioned proposal

The meeting will be held as follows:-

Day: 21 June 2021
Time: 14H00
Place: Ms Teams

The MS TEAMS LINK WILL FOLLOW SOON!

BATACH TEAM
EAP

VIRTUAL MEETING

PROPOSED CONSTRUCTION AND OPERATION OF A CAUSTIC SODA MAKE-UP PLANT

21 JUNE 2021

14H00PPM – 15H30PM

Opening, Welcoming and Introduction

Mr Lucky Msimanga from Batach Holdings facilitated the meeting. He declared the meeting opened and welcomed all attendees. He further allowed all in the meeting to introduce themselves and indicate the organisation they represented.

Apologies:

No apologies recorded

Meeting objectives: The purpose of the meeting was to:-

- Provide Interested and Affected Parties (I&APS) and key Stakeholders with information regarding the proposed project;
- Provide overview of where we are in Environmental Impact Assessment (EIA) process;
- Present roles and input required from the I&APs going forward
- Provide opportunity for stakeholders and I&APs to seek clarity and provide ongoing input into project.

Presentations:

- ✓ **Mr. Lucky Msimanga (LM),** an Environmental Impact Assessment Practitioner (EAP) gave presentation on the technical and Public Participation Process. He indicated that the project consists of two phases, Scoping and Environmental Impact Assessment (EIA) Phase because it triggers activities from listing 2 of EIA Regulations 2014 as amended in 2017. **LM** gave background of the project and outlined all PP activities undertaken so far and the way forward as follows:
    - Database of Interested and Affected Parties was generated early April (Ongoing until the end of the Process of EIA)
    - Announcement of project through media (Newspaper advertisement)
    - Background Information Document (BID) was distributed to different stakeholders (Local Municipality, Landowner, Adjacent Business Owners, NGOs etc) early April 2021.
    - Draft Scoping Report was made available for public review from 03 June 2021 to 04 July 2021. Copies were made available at the Kempton Park Library and also announced through media. Draft scoping report also made available in the Batach and African Chemicals website.

LM further explained the way forward as follows:

- All comments received during commenting period would be addressed by Environmental Assessment Practitioner (EAP) in the form of Comments and Responses Report and would be incorporated into the Final draft scoping report.
- The final draft scoping report would then be submitted to the competent authority (GDARD)
- All registered I&APs would be afforded an opportunity to comment on the final draft scoping report.
- The competent authority will accept of reject the final scoping draft within 44 days after submission.

- All registered stakeholders will be notified of the acceptance or rejection of the report.

LM gave some of the specialists who were part of the meeting were given an opportunity to give their desktop input.

LM close the meeting by giving thanks to everyone who took their time to attend the meeting.

Meeting was adjourned at 15:00

Discussions and Questions	
Nicky from Tiger Truck raised concerns about:	
Waste Management	Measures such as recycling, re-use and treat will be used to manage the waste during construction and operational phase. Building rubble will be disposed of at registered landfill within Ekurhuleni Metropolitan Municipality. During operation waste will be collected by the Municipality.
Surface and Ground water contamination	Borehole testing will be done on a regular basis. Stormwater will be managed in a way that contaminated water does not flow into the surrounding areas.
Traffic Impact	The road will be upgraded during the construction and operational phase of the proposed development of Caustic Soda Make up Plant.
Disaster Management Plan	Any disaster that may occur will be minimal and will not go beyond the boundary of the proposed project site.
Air Quality	Plant will be zero effluent and will be designed to comply with the minimum emission standards for subcategory7.7: production of Caustic Soda.
Dust from gravel road	Gravel road will be upgraded to minimise the dust and dust suppression method like spraying of water during construction will be used.

Way Forward

- Submission of draft final scoping report to the Competent Authority (GDARD)

Compiler: NC Netshaulu **Signature:** 

APPENDIX 10

Calvin Netshaulu

From:	Calvin Netshaulu <calvinTN@telkomsa.net>
Sent:	Tuesday, 29 June 2021 09:58
To:	'karabomolokwane986@gmail.com'; 'denelek@ncp.co.za'; 'betsbuys@klap.cp.za'; 'rossc@ncp.co.za'; 'barnes@ncp.co.za'
Cc:	'JohnnyA@ncp.co.za'; 'dcosijn@absamail.co.za'; 'lechateau@mweb.co.za'; 'bongitn@telkomsa.net'; 'etienea@joburg.org.zat'
Subject:	REMINDER TO COMMENT: CAUSTIC MAKE UP PLANT PROJECT.

Good day fellow colleagues,

This is a reminder that the Public participation period for the Project: CAUSTIC MAKE UP PLANT will be closing soon on the **04 July 2021.**

This is a courtesy reminder to forward your comments and questions to the Public Participation officer on or before the closing PP period. Alternatively use the following emails for all your communication.

Calvin Netshaulu - calvinTN@telkomsa.net
Vhuhone vhuhone - vhuhonemp@gmail.com
Info@batch.co.za

Your contribution is highly valued.

Kind regards

BATACH EAP

Calvin Netshaulu

From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: Tuesday, 29 June 2021 09:52
To: 'Grant.Botha@gauteng.gov.za'
Subject: FW: REMINDER TO COMMENT: CAUSTIC MAKE UP PLANT PROJECT.

Good day fellow colleague,

This is a reminder that the Public participation period for the Project: CAUSTIC MAKE UP PLANT will be closing soon on the **04 July 2021.**

This is a courtesy reminder to forward your comments and questions to the Public Participation officer on or before the closing PP period. Alternatively use the following emails for all your communication.

Calvin Netshaulu - calvinTN@telkomsa.net
Vhuhone vhuhone - vhuhonemp@gmail.com
Info@batch.co.za

Your contribution is highly valued.

Kind regards

BATACH EAP

Calvin Netshaulu

From: Batach Holdings Admin <info@batach.co.za>
Sent: Thursday, 24 June 2021 11:50
To: 'Bongeka Mtyana'; 'Lilian Kwakwa'; Lerato.Setolo@ekurhuleni.gov.za
Cc: Yuza.Chabalala@transnet.net; 'Calvin Netshaulu'; 'vhuhone vhuhone'
Subject: RE: CAUSTIC SODA MAKE-UP PLANT PROJECT: REMINDER FOR COMMENTS OF DRAFT SCOPING REPORT FOR PUBLIC REVIEW_PROJECT REF: GAUT 002/20-21/E2748

Importance: High

Good day fellow colleagues,

This is a reminder that the Public participation period for the Project: CAUSTIC MAKE UP PLANT will be closing soon on the **04 July 2021.**

This is a courtesy reminder to forward your comments and questions to the Public Participation officer on or before the closing PP period. Alternatively use the following emails for all your communication.

Calvin Netshaulu - calvinTN@telkomsa.net
Vhuhone vhuhone - vhuhonemp@gmail.com
Info@batch.co.za

Your contribution is highly valued.

Kind regards

BATACH EAP

Calvin Netshaulu

From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: Tuesday, 29 June 2021 09:50
To: 'mothapoL@nra.co.za'; 'MjonaT@dws.gov.za'
Cc: 'Lkelembe@jra.org.za'; 'Batach Holdings Admin'; 'vhuhone vhuhone'
Subject: REMINDER TO COMMENT: CAUSTIC MAKE UP PLANT PROJECT.

Good day fellow colleagues,

This is a reminder that the Public participation period for the Project: CAUSTIC MAKE UP PLANT will be closing soon on the **04 July 2021.**

This is a courtesy reminder to forward your comments and questions to the Public Participation officer on or before the closing PP period. Alternatively use the following emails for all your communication.

Calvin Netshaulu - calvinTN@telkomsa.net
Vhuhone vhuhone - vhuhonemp@gmail.com
Info@batch.co.za

Your contribution is highly valued.

Kind regards

BATACH EAP

Calvin Netshaulu

From: Batach Holdings Admin <info@batach.co.za>
Sent: Thursday, 24 June 2021 12:00
To: 'Thabang Mokoena'
Cc: 'Andiswa Majola'; 'Calvin Netshaulu'
Subject: RE: CAUSTIC SODA MAKE-UP PLANT PROJECT: REMINDER FOR COMMENTS OF DRAFT SCOPING REPORT FOR PUBLIC REVIEW_PROJECT REF: GAUT 002/20-21/E2748

From: Batach Holdings Admin <info@batach.co.za>
Sent: Thursday, June 24, 2021 11:50 AM
To: 'Bongeka Mtyana' <Bongeka.Mtyana@ekurhuleni.gov.za>; 'Lilian Kwakwa' <Lillian.Kwakwa@ekurhuleni.gov.za>; 'Lerato.Setolo@ekurhuleni.gov.za' <Lerato.Setolo@ekurhuleni.gov.za>
Cc: 'Yuza.Chabalala@transnet.net' <Yuza.Chabalala@transnet.net>; 'Calvin Netshaulu' <calvinTN@telkomsa.net>; 'vhuhone vhuhone' <vhuhonemp@gmail.com>
Subject: RE: CAUSTIC SODA MAKE-UP PLANT PROJECT: REMINDER FOR COMMENTS OF DRAFT SCOPING REPORT FOR PUBLIC REVIEW_PROJECT REF: GAUT 002/20-21/E2748
Importance: High

Good day fellow colleagues,

This is a reminder that the Public participation period for the Project: CAUSTIC MAKE UP PLANT will be closing soon on the **04 July 2021.**

This is a courtesy reminder to forward your comments and questions to the Public Participation officer on or before the closing PP period. Alternatively use the following emails for all your communication.

Calvin Netshaulu - calvinTN@telkomsa.net
Vhuhone vhuhone - vhuhonemp@gmail.com
Info@batch.co.za

Calvin Netshaulu

From: Calvin Netshaulu <calvinTN@telkomsa.net>
Sent: Tuesday, 29 June 2021 10:23
To: 'Bongeka Mtyana'; 'Lerato Selolo'
Cc: 'Lucky Msimanga'; 'Lilian Kwakwa'
Subject: RE: CAUSTIC SODA MAKE-UP PLANT PROJECT: AVAILABILITY OF DRAFT SCOPING REPORT FOR PUBLIC REVIEW_PROJECT REF: GAUT 002/20-21/E2748

Good day Lillian

This is a reminder that the Public participation period for the Project: CAUSTIC MAKE UP PLANT will be closing soon on the **04 July 2021.**

This is a courtesy reminder to forward your comments and questions to the Public Participation officer on or before the closing PP period. Alternatively use the following emails for all your communication.

Calvin Netshaulu - calvinTN@telkomsa.net
Vhuhone vhuhone - vhuhonemp@gmail.com
Info@batch.co.za

Your contribution is highly valued.

Kind regards

PUBLIC PARTICIPATION OFFICER
CALVIN

From: Bongeka Mtyana <Bongeka.Mtyana@ekurhuleni.gov.za>
Sent: Tuesday, 29 June 2021 10:20
To: Calvin Netshaulu <calvinTN@telkomsa.net>; Lerato Selolo <Lerato.selolo@ekurhuleni.gov.za>
Cc: 'Lucky Msimanga' <lucky@batach.co.za>; Lilian Kwakwa <Lillian.Kwakwa@ekurhuleni.gov.za>
Subject: RE: CAUSTIC SODA MAKE-UP PLANT PROJECT: AVAILABILITY OF DRAFT SCOPING REPORT FOR PUBLIC REVIEW_PROJECT REF: GAUT 002/20-21/E2748

APPENDIX II

GAUTENG PROVINCE
AGRICULTURE AND RURAL DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

Reference: GAUT 002/20-21/E02748
Enquiries: Teboho Leku
Tel: +27 (0)11 240 3421
Tebo.Leku@gauteng.gov.za

Batach Holdings
PO Box 496
Bendor
0699

Email: lucky@batach.co.za

Dear Lucky Mishanga,

COMMENTS ON THE DRAFT SCOPING REPORT: FOR THE PROPOSED DEVELOPMENT OF A CAUSTIC SODA-MAKE UP FACILITY AT CHLOORKOP, KEMPTON PARK, CITY OF EKURHULENI METROPOLITAN MUNICIPALITY

Regarding the above-mentioned Draft Scoping Report received by the Department on 17 April 2021, herewith receive the comments from the Department.

1. Description of the site/property/route and development

The proposal entails construction and operation of a caustic soda (known as sodium hydroxide) make up plant. The proposed construction and operation will be situated at Erf 198 of Chloorkop-IR. The proposed development aims to operate autonomously with its own proposed two entrances, security access, weighbridge, warehouse, production facility tank farm and staff quarters. The proposed caustic make-up plant involves the dissolution storage and loading of approximately 5000 tones (LMT) of caustic soda per months at 45-50 weight of desired caustic solution concentration on the site which measures 1,875567 hectares in extent. African Chemicals wishes to import dry caustic which will be distributed to the newly proposed facility in Johannesburg where it will be dissolved into lye form releasing excessive heat and thereafter loaded to customer tanker trucks

This Department requires that the description of the site to be provided in full to include a farm name, farm registration number as well as a portion number.

2. Applicable legislation and policies

The report has made provision to accommodate all applicable legislation, policies and guidelines. The activity entails the construction and operation of a caustic make-up plant which have an impact in the National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended) and the National Environmental Management Air Quality Act, 2004 (Act No 39 of 2004). The Gauteng Environmental Management Framework, 2015 (GEMF, 2015) identifies the proposed site as an Environmental Management Zone 5.

3. Description of the receiving environment

The Departmental Conservation Plan Version 3.3 denotes the site as partially transformed and without any environmental sensitivity.

4. Listed activities applied for

The following listed activities have been applied for-

Activity No and description	Description of the development related to the listed activity
GN. R 983: Listing Notice 2 activity 4 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 more than 500 cubic metres.	The proposed combine capacity of containers for the storage and handling of dangerous goods on site will exceed 500 cubic metres
GN. R 983: Listing Notice 2 activity 6 The development of facilities or infrastructure for any process or activity which requires a permit or license or an amended permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution, or effluent, excluding (i) activities which are identified and included in Listing Notice 1 of 2014. (ii) activities which are included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies. (iii) the development of facilities or infrastructure for the treatment of effluent, polluted water, wastewater or sewage where such facilities have a daily throughput capacity of 2 000 cubic metres or less; or (iv) where the development is directly related to aquaculture facilities or infrastructure where the wastewater discharge capacity will not exceed 50 cubic metres per day.	The development facilities and infrastructure for proposed caustic plant requires an Atmospheric Emissions License in terms of the National Environmental Management Air Quality Act, 2004 (Act No 36 of 2004)
GN. R 983: Listing Notice 2 activity 7 The development and related operation of facilities or infrastructure for the bulk transportation of dangerous goods— (i) in gas form, outside an industrial complex, using pipelines, exceeding 1 000 metres in length, with a throughput capacity of more than 700 tons per day; (ii) in liquid form, outside an industrial complex, using pipelines, exceeding 1 000 metres in length, with a throughput capacity of more than 50 cubic metres per day; or (iii) in solid form, outside an industrial complex, using funiculars or conveyors with a throughput capacity of more than 50 tons per day.	The is a proposed transportation of the product on solid form, outside of the industrial complex using funiculars or conveyors with a throughput capacity of more than 50 tons per day
GN. R 983: Listing Notice 1 activity 46 The expansion and related operation of infrastructure for the bulk transportation of sewage, effluent, process water, wastewater, return water, industrial discharge, or slimes where the existing infrastructure— (i) has an internal diameter of 0,36 metres or more; or (ii) has a peak throughput of 120 litres per second or more; and	The proposed development will require expansion of sewer

(a) where the facility or infrastructure is expanded by more than 1 000 metres in length; or (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more. excluding where such expansion— (aa) relates to the bulk transportation of sewage, effluent, process water, wastewater, return water, industrial discharge or slimes within a road reserve or railway line reserve; or (bb) will occur within an urban area.	
GN. R 983: Listing Notice 1 activity 46 The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre— (i) where the existing reserve is wider than 13,5 meters; or (ii) where no reserve exists, where the existing road is wider than 8 metres. excluding where widening or lengthening occur inside urban areas.	Transportation of the caustic require the widening of the roads for the 3. Ton trucks to transport easily

The application form has typing error on listing notices section which need to be rectify. Please retrieve the current forms submitted with the Department and submitted corrected ones.

5. Specialist studies

Several studies have been provided on the report, an Air Quality study must be conducted as the production of Caustic Lye triggers Section 21 of the National Environmental Management: Air Quality Act, Act No 39 of 2004) Category 7.

6. Services required

The development requires bulk municipality services, as the product itself requires calculated water to mix with caustic flakes and portable water will be provided by the municipality. A services report must be included on the draft and final EIR indicating all required services availability.

7. Impacts Identification, Assessment and Mitigation

The identification and assessment of impacts must lead to a conclusion that the associated mitigation measures identified will reduce impacts to an acceptable level and mitigation measures identified must be included in the Final Scoping and DEIAR to be submitted.

8. Assessment of alternatives

The number of alterative were provided on the Draft Scoping Report. These must be compared, and the least impacting option be selected as a preferred proposal. This must form part of the draft and final EIAR.

9. Need and desirability of the development

The proposed caustic plant needs, and desirability of the development has been mentioned from page 81 to 90 of the report.

10. Maps, layout plans, services route positioning

The locality map has been included in the Draft Scoping report.

11. Public Participation Process

It is noted that the Draft Basic Assessment Report (DBAR) is currently being circulated for comment. The public participation process must be undertaken in accordance with the EIA Regulations, 2014. Further, comments from City of Ekurhuleni Metropolitan Municipality: Directorate of Environmental Infrastructure Service: Impact Management and Compliance Monitoring must be sought, adequately addressed and submitted to the Department with the Final Scoping and DEIAR to be submitted.

12. Environmental Management Programme (EMPr)

An updated EMPr taking inyo consideration all matters raised in this letter must be attached on the DEIAR.

If you have any queries regarding the contents of this letter, please contact the official of the Department using any of the above indicated contact details.

Yours faithfully,

Mr. Teboho Leku
CEO: B: Impact Management
Date: 3/5/2021

AN APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION FOR THE CONSTRUCTION AND OPERATION OF A CAUSTIC-SODA MAKE-UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE, SOUTH AFRICA.

COMMENT SHEET

Please complete and return to Public Participation Office by no later than 30 May 2021 :
NB: Feel free to use the language of your choice when completing the comment sheet:

Mabotha Investment (Pty) Ltd
P O Box 73111, Lynnwood Ridge, 0040.

Cel: (061) 404 4381; Fax (086) 551 9788
Email: mjmanyaka@miprojects.net info@batach.co.za

TITLE	Operations Manager	FIRST NAME	Brian
INITIALS	BA	SURNAME	Rosy
ORGANISATION	Tiger Truck	EMAIL	brian@tigertruck.co.za
POSTAL ADDRESS	1 Hyton Rd Chloorkop	POSTAL CODE	1410
TEL NO	011 828 0705	FAX NO	

Participation on the application processes: ☐

1. Would you like to become involved in the application processes?
   YES ☐ NO ☒
2. Is there anyone else you would like us to include on the stakeholder database? Please be so kind as to supply their contact details below.
   .....
   .....
3. Please give us comment on the proposed public participation process:
   .....
   .....
   .....

We would like to hear your views and comment on the following:

1. What you think are potential environmental impacts (positive and negative) of the proposed project:
   Negative, Apart From The Environment Some Of Our Staff Are Asthmatic And Other Underlying Conditions
2. What you think are potential economic impacts (positive and negative) of the proposed project:
   Negative
3. What you think are potential social impacts (positive and negative) of the proposed project:
   Negative
4. How you think adverse impacts should be mitigated and positive impacts be enhanced:
   .....
   .....

WE THANK YOU FOR YOUR PARTICIPATION

AN APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION FOR THE CONSTRUCTION AND OPERATION OF A CAUSTIC-SODA MAKE-UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE, SOUTH AFRICA.

COMMENT SHEET

Please complete and return to Public Participation Office by no later than 30 May 2021 **:**
NB: Feel free to use the language of your choice when completing the comment sheet:

Mabotha Investment (Pty) Ltd
P O Box 73111, Lynnwood Ridge, 0040.

Cel: (061) 404 4381; Fax (086) 551 9788
Email: mjmanyaka@miprojects.net info@batach.co.za

TITLE	MRS	FIRST NAME	NICOLETTE
INITIALS	N	SURNAME	EDWARDS
ORGANISATION	TIGER TRUCK SPARES	EMAIL	nicky@tigertruck.co.za
POSTAL ADDRESS	Po Box 182 Bedfordview.		
		POSTAL CODE	2008
TEL NO	0118280705	FAX NO	

Participation on the application processes: ☐

1. Would you like to become involved in the application processes?
   YES ☐ **NO** ☐
2. Is there anyone else you would like us to include on the stakeholder database? Please be so kind as to supply their contact details below.

   Directors as attached.

3. Please give us comment on the proposed public participation process:

We would like to hear your views and comment on the following:

1. What you think are potential environmental impacts (positive and negative) of the proposed project:

   Negative impact on air quality + environment.
   Asthmatic staff employed at Tiger.

2 What you think are potential economic impacts (positive and negative) of the proposed project:

   Positive - More traffic flow - exposure to our spares dept
   Negative - Road deterioration - Gravel road + dust

3. What you think are potential social impacts (positive and negative) of the proposed project:
4. How you think adverse impacts should be mitigated and positive impacts be enhanced:

WE THANK YOU FOR YOUR PARTICIPATION

AN APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION FOR THE CONSTRUCTION AND OPERATION OF A CAUSTIC-SODA MAKE-UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE, SOUTH AFRICA.

COMMENT SHEET

Please complete and return to Public Participation Office by no later than 30 May 2021

NB: Feel free to use the language of your choice when completing the comment sheet and return to:

Batach Holdings (Pty) Ltd
Thornhill Office Park, 94
Bekker Rd, Vorna Valley
Midrand 1686

Cell: (061) 356 8423/ 079 706 7626Fax (086) 662 2498
Email info@batach.co.za / calvinTN@telkomsa.net

TITLE	MR	**FIRST NAME**	DIRATHLO ALFRED
INITIALS		**SURNAME**	SEPIRWA
ORGANISATION		**EMAIL**	alfred.sepirwa58@gmail.com
POSTAL ADDRESS			Postnet Suite 3236 PRIVATE BAG X31 KEMPTON PARK
TEL NO		**POSTAL CODE**	1620
		FAX NO	

Participation on the application processes:

1. Would you like to become involved in the application processes?
   YES ☒ **NO** ☐
2. Is there anyone else you would like us to include on the stakeholder database? Please be so kind as to supply their contact details below:
   Ekurhuleni West College = Tembisa & Kempton Park Campuses.
3. Please give us comment on the proposed public participation process:

We would like to hear your views and comment on the following:

1. What you think are potential environmental impacts (positive and negative) of the proposed project:
   N/A - I do not think or see a major environmental problem
2. What you think are potential economic impacts (positive and negative) of the proposed project:
   There is a need for further future engagement on economic activities for sustainability of local SMMEs.
3. What you think are potential social impacts (positive and negative) of the proposed project:
   Potential Challenges for housing and schooling opportunities property consultation and discussion on future projects
4. How you think adverse impacts should be mitigated and positive impacts be enhanced:
   Regular consultation with communities

WE THANK YOU FOR YOUR PARTICIPATION

AN APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION FOR THE CONSTRUCTION AND OPERATION OF A CAUSTIC-SODA MAKE-UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE, SOUTH AFRICA.

COMMENT SHEET

Please complete and return to Public Participation Office by no later than 30 May 2021

NB: Feel free to use the language of your choice when completing the comment sheet and return to:

Batach Holdings (Pty) Ltd
Thornhill Office Park, 94
Bekker Rd, Vorna Valley
Midrand 1686.

Cell: (061) 356 8423/ 079 706 7626Fax (086) 662 2498
Email: info@batach.co.za / calvinTN@telkomsa.net

TITLE	Mr.	FIRST NAME	Simon
INITIALS	M. S	SURNAME	Kwila
ORGANISATION	COE	EMAIL	simon.kwila@ekurhuleni.gov.za
POSTAL ADDRESS	1843 Pule TEMBISA		1843 PMS.
	0729141553	POSTAL CODE	1632
TEL NO	011-9994816	FAX NO	N/A

Participation on the application processes:

1. Would you like to become involved in the application processes?
   YES [✓] NO [ ]

2. Is there anyone else you would like us to include on the stakeholder database? Please be so kind as to supply their contact details below. SANCO – Ernest Mlangeni 0796872416

3. Please give us comment on the proposed public participation process: By calling small grouping of SANCO members

We would like to hear your views and comment on the following:

1. What you think are potential environmental impacts (positive and negative) of the proposed project: Air pollution

2. What you think are potential economic impacts (positive and negative) of the proposed project: JoB. Creation

3. What you think are potential social impacts (positive and negative) of the proposed project: JoB. Creation

4. How you think adverse impacts should be mitigated and positive impacts be enhanced: Air pollution monitoring

WE THANK YOU FOR YOUR PARTICIPATION

AN APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION FOR THE CONSTRUCTION AND OPERATION OF A CAUSTIC-SODA MAKE-UP PLANT IN KEMPTON PARK, GAUTENG PROVINCE, SOUTH AFRICA.

COMMENT SHEET

Please complete and return to Public Participation Office by no later than 30 May 2021

NB: Feel free to use the language of your choice when completing the comment sheet and return to:

Batach Holdings (Pty) Ltd
Thornhill Office Park, 94
Bekker Rd, Vorna Valley
Midrand 1686.

Cell: (061) 356 8423/ 079 706 7626Fax (086) 662 2498
Email:info@batach.co.za / calvinTN@telkomsa.net

TITLE	MR	**FIRST NAME**	DIKGOLO ALFRED
INITIALS		**SURNAME**	SEPIRWA
ORGANISATION		**EMAIL**	alfred.sepirwa958@gmail.com
POSTAL ADDRESS			Postnet Suite 2336 PRIVATE BAG X37 KEMPTON PARK
		POSTAL CODE	1620
TEL NO		**FAX NO**	

Participation on the application processes: ☐

1. Would you like to become involved in the application processes?
   YES ☒ **NO** ☐
2. Is there anyone else you would like us to include on the stakeholder database? Please be so kind as to supply their contact details below:
   Ekurhuleni West College = Tembisa & Kempton Park Campuses
3. Please give us comment on the proposed public participation process:

We would like to hear your views and comment on the following:

1. What you think are potential environmental impacts (positive and negative) of the proposed project: N/A. I do not think or see a major environmental problem
2. What you think are potential economic impacts (positive and negative) of the proposed project: There is a need for further future engagement on economic activities for sustainability of local SMME's
3. What you think are potential social impacts (positive and negative) of the proposed project: potential challenges for housing and squatting opportunities property. Consultation and discussion on future projects
4. How you think adverse impacts should be mitigated and positive impacts be enhanced: Regular consultation with communities

WE THANK YOU FOR YOUR PARTICIPATION

Head of Department:
Environmental Resource and Waste Management

Attention: Lucky Msimanga
BATACH HOLDINGS (PTY) LTD
[illegible]
[illegible]
[illegible]

T[illegible]:
F[illegible]:
C[illegible]:
E[illegible]:

[illegible]
Edenvale
[illegible]

E[illegible]:
T[illegible]:
E[illegible]:

Dear Sir

Subject: **COMMENTS ON THE DRAFT SCOPING REPORT FOR THE PROPOSED CONSTRUCTION AND OPERATION OF THE CAUSTIC SODA MAKE-UP PLANT ON ERF 198, CHLOORKOP, KEMPTON PARK, CITY OF EKURHULENI.**

[illegible]

1. **Alignment of the activity with the applicable environmental legislation, guidelines and policies:**

[illegible] following environmental management tools:

- [illegible]
- [illegible]
- [illegible]

2. **The Gauteng Environmental Management Framework, 2015 (GEMF, 2015)**

[illegible] **Zone 5 (Industrial and large commercial focus zone).** [illegible]

3. **City of Ekurhuleni Bioregional Plan**

[illegible] **"No Natural Areas Remaining" category** [illegible]

4. Applicable Environmental Legislation

[illegible]
[illegible]
[illegible]

5. The following issues from the report need to be taken into consideration:

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

Regards

MS. FAITH WOTSHELA
HEAD OF THE DEPARTMENT
ENVIRONMENTAL RESOURCE AND WASTE MANAGEMENT

Signed by Mr. T Mokoena (DH: Compliance) on behalf of HOD: ER&WM

Date: 09 July 2021

water & sanitation
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

North West Provincial Operations, 285 Bothongo Plaza East Building, Francis Baard Street, Pretoria,
Tel 012 392 1499, www.dws.gov.za

Enquiries: T. Mhlanga Tel: 012 392-1499
Fax: 012 392-1408 Ref no: 16/2/7/A210/N45

Batach Holdings
Building No. 8, 1st Floor
Thornhill Office Park, 94 Bekker road
MIDRAND
1686

Attention: Mr Calvin Netshaulu

CONSTRUCTION AND OPERATION OF THE CAUSTIC SODA MAKE-UP PLANT IN CHLOORKOP: ERF NO 198, OF THE FARM CHLOORKOP-IR, WITHIN THE CITY OF EKURHULENI METROPOLITAN IN GAUTENG PROVINCE.

Reference is made to the above mentioned report dated 10 May 2021.

The Department of Water and Sanitation has evaluated the document and would like the following issues to be addressed in terms of the National Water Act, 1988 (Act 36 of 1998).

1. Please note that taking or using of water from water resources during construction and operation will trigger water use which must be authorized by this Department in terms of Section 21 and 40 of National Water Act, 1998 (Act No.36 of 1998).

2. Ekurhuleni Metropolitan Municipality must approve all sanitation facilities.

3. No activity must continue within 500m of wetland, riparian area and floodlines unless authorized by this Department.

4. All waste materials (including non-biodegradable and biodegradable) generated during the construction should be disposed of at a permitted landfill site and an agreement between the municipality and the contractor must be submitted to this office regarding the disposal of such waste material.

5. Any oil spillages, diesel or any other hazardous substance should be treated and disposed of at a permitted hazardous landfill site and the Department must be notified within 24 hours.

6. The Stormwater Management Plan for this development must be approved by City of Ekurhuleni Metropolitan Municipality.

7. Please note that this office will inspect this project at any time to ensure compliance.

For any enquiries on the above comments, do not hesitate to contact this office on the above indicated contacts.

Yours sincerely

……
DIRECTOR: INSTITUTIONAL ESTABLISHMENT

DATE……9 July 2021

APPENDIX 12