



**URBAN  
DYNAMICS**  
town and regional planners

JULY 2020  
REPORT NUMBER: **APP001063**

## **APPLICATION FOR ENVIRONMENTAL CLEARANCE:**

FOR A WATER-BASED PAINT MANUFACTURING PLANT ON  
ERF 2, NUBU INDUSTRIAL PARK, WINDHOEK

### **ENVIRONMENTAL SCOPING ASSESSMENT**

<b>PROPONENT:</b>	<b>CONSULTANT:</b>
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<b>SUBMISSION:</b> MINISTRY OF ENVIRONMENT FORESTRY AND TOURISM PRIVATE BAG 13306 <b>WINDHOEK</b> NAMIBIA	<b>REFERENCE: 1190</b>  ENQUIRIES: HEIDRI BINDEMANN-NEL  Tel: +264-61-240300 Fax: +264-61-240309



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**GENERAL LOCATION DESCRIPTION OF THE DEVELOPMENT AREA:**

<b>DESCRIPTOR:</b>	<b>LOCATION SPECIFICS:</b>
ACTIVITIES:	Land Use and Development Activities
REGISTRATION DIVISION:	K
REGION:	Khomas Region
LOCAL AUTHORITY:	Municipality of Windhoek (City of Windhoek)
Fall Within:	The City of Windhoek's Townlands
NEAREST TOWNS / CITY:	Windhoek
LAND USE:	Industrial
HOMESTEADS/STRUCTURES:	None
HISTORICAL RESOURCE LISTINGS:	None
CEMETERY:	None
ENVIRONMENTAL SIGNIFICANT AREA:	None
<b>ERF 2, NUBU INDUSTRIAL PARK</b>	
PROJECT SITE SIZE	4 149 Sqm
LATITUDE:	-22. 46066 S,
LONGITUDE:	17.077314 E

ABBREVIATION:	DESCRIPTION:
am	ANTE MERIDIEM / BEFORE MIDDAY
Av	AVENUE
BID	BACKGROUND INFORMATION DOCUMENT
EPP	EMERGENCY PREVENTION PLANS
ER.	EMPLOYERS REPRESENTATIVE
EA	ENVIRONMENTAL ASSESSMENT
EC.	ENVIRONMENTAL COMMISSIONER
ECO	ENVIRONMENTAL CONTROL OFFICER
EMP	ENVIRONMENTAL MANAGEMENT PLAN
etc.	ET CETERA / OTHER SIMILAR THINGS
e.g.	EXEMPLI GRATIA
HIV	HUMAN IMMUNODEFICIENCY VIRUS
ISO	INTERNATIONAL ORGANIZATION FOR STANDARDISATION
i.e.	ID EST. / IN OTHER WORDS
I&APs	INTERESTED AND AFFECTED PARTIES
NHC	NAMIBIAN HEALTH CARE
MEFT	MINISTRY OF ENVIRONMENT FORESTRY AND TOURISM
NAMPAB	NAMIBIAN PLANNING ADVISORY BOARD
pm	POST MERIDIEM / AFTER MIDDAY
TMP	TRAFFIC MANAGEMENT PLAN
VOC	VOLATILE ORGANIC COMPOUNDS
TB.	TUBERCULOSIS
WMP	WASTE MANAGEMENT PLAN

UNIT SYMBOL:	UNIT DESCRIPTION:
pm	POST MERIDIEM / AFTER MIDDAY
0°	DEGREES CELSIUS
E	EAST
Kl	KILO LITTER
Km	KILOMETRE
m	METER
mm	MILLIMETRE
S	SOUTH
m <sup>2</sup>	SQUARE METERS
%	PERCENTAGE

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## 1 APPOINTMENT

Urban Dynamics has been appointed by the JF Paints (Pty) Ltd. to obtain Environmental Clearance for

### **CONSENT TO OPERATE A WATER-BASED PAINT MANUFACTURING PLANT ON ERF 2, NUBU INDUSTRIAL PARK, WINDHOEK**

The relevant documentation are included in support of our application to the Environmental Commissioner; please refer to the annexures attached hereto.

## 2 BACKGROUND

JF Paints (Pty) Ltd. trading as Dulux Namibia, a Namibian company, have been trading (in Namibia) for six years from premises at Reger Street 8-12, Southern Industrial, Windhoek. The current premises cannot accommodate the proposed new manufacturing facility, which is needed to extend the company's product portfolio, within Namibia. Therefore, the company is relocating to Erf 2, Nubu Industrial Park, Windhoek near Brakwater.

**Figure 1:** *The Locality of Windhoek*



Dulux takes sustainability seriously, which is why they have a “bold ambition to radically reduce Volatile Organic Compounds (VOC) emissions across their product portfolio”(Dulux, 2019). To achieve this, they “switched from solvent-based to water-based paint. Dulux water-based paint is based on a 100% water-based acrylic system” (Dulux, 2019). As a result, Dulux is seen as a global leader in sustainability (find attached background on *Dulux Trade* as **Appendix “D”**)

The client has built the Dulux brand in Namibia to a level where manufacturing for all their water-based products becomes viable, and that will result in the following benefits:

- The company will inject capital into the local and national economy;

- Provide employment to skilled and unskilled workers;
- Provide products and services that provide comprehensive green solutions;
- Manufacturing water-based paints locally, thereby substituting imports from South Africa;
- Manufacturing paints for export, thereby generating foreign currency for the local economy; and
- Create a business that will have the possibility to export products versus import.

Urban Dynamics were appointed by the JF Paints (Pty) Ltd. to obtain Environmental Clearance and Consent to utilise Erf 2, Nubu Industrial Park, Windhoek for the Dulux water-based paint manufacturing facility. In order to facilitate the proposed development, Urban Dynamics applied to the Windhoek City Council for consent to operate a water-based paint factory from Erf 2, Nubu Industrial Park.

This consent has been granted subject to obtaining environmental clearance from the Ministry of Environment Forestry and Tourism (a copy of the approval is attached as **Appendix "A"**)

### 3 NATURE OF THE ACTIVITY

The erf is currently zoned "Industrial", and according to the Windhoek Town Planning Scheme, an "Industrial" zoned erf need consent from the Council to construct and to utilise the erf for a noxious industrial building.

*"Noxious industrial building means a building designed and/or used for the purpose of carrying on any noxious or offensive trade or occupation and, without prejudice to the generality of the foregoing, includes the following:*

*Chemical works, paint works, breweries and distilleries, sugar mills and sugar refineries, manure-, superphosphate- or fertiliser works; or premises used for the storing or mixing of manure, superphosphates or fertilisers or premises for the storing, drying, preserving or other treatment of bones, horns or hoofs, premises used for the storing, sorting or treatment of hides and skins, other than in a dry and inoffensive condition, abattoirs, glue or size factories, entrails scraping....."* (Windhoek Town Planning Scheme).

The activity is not specifically dealt with by the Environmental Management Act (Act 7 of 2007). However, it is prudent for the ESA to investigate if hazardous substances are involved in the industrial process and resultant waste stream.

This report documents the baseline information necessary to enable the Environmental Commissioner (EC) to screen this project and issue an Environmental Clearance Certificate in terms of **Section 33 of the Environmental Management Act (Act 7 of 2007)**.

This report deals with the nature of the project, identifies the potential impacts that may be expected and the mitigation measures which will be implemented and how the impacts may be dealt with.

## 4 RELEVANT LEGISLATION

### The Relevant Legislation and Guidelines:

THEME	LEGISLATION INSTRUMENT	MANAGEMENT REQUIREMENTS
<b>NATIONAL:</b>	<i>The Constitution of the Republic of Namibia of 1990</i>	<p>The state shall actively promote and maintain the welfare of the people by adopting, inter-alia, policies aimed at the following:</p> <p>(i) <i>management of ecosystems, essential ecological processes and biological diversity of Namibia and utilisation of living natural resources on a sustainable basis for the benefit of all.</i></p>
<b>ENVIRONMENTAL:</b>	<p><i>Environmental Management Act. 7 of 2007</i></p> <p><i>EIA Regulations (EIAR) GN 57/2007 (GG 3812)</i></p>	<p>For an Environmental Clearance Certificate – the following activities are applicable:</p> <p>In terms of sections:</p> <p><b>Section 8.(6),</b> <i>Construction of industrial and domestic wastewater treatment plants and related pipeline System,</i></p> <p><b>Section 9.(2),</b> <i>Any process or activity which requires an amendment of an existing facilities for any process or activity which requires an amendment of an existing permit, licence or authorisation or which requires a new permit, licence or authorisation in terms of a law governing the generation or release of emissions, pollutions, effluent or waste.</i></p> <p>Prescribes the procedures to follow for public participation according to Section 7.1(a) and 8(f).</p> <p>Prescribes the procedures to be followed for authorisation of the project (i.e. Environmental clearance certificate)</p>
<b>ATMOSPHERIC:</b>	<i>Atmospheric Pollution Prevention Ordinance Ord. 11 of 1976</i>	Applicant must subscribe to all applicable provisions prevention pollution of the atmosphere by Noxice pollution.
<b>CONSENT:</b>	<p><i>Town Planning Ordinance Ord. 18 of 1954 as amended.</i></p> <p><i>Windhoek Town Planning Scheme.</i></p> <p><i>Town Planning Committee:</i></p>	<p>Adhere to all applicable provisions of the Windhoek Town Planning Scheme regarding consent to utilise the erf for Noxious land use.</p> <p>The Committee resolution indicates that the applicant needs to obtain Environmental Clearance to operate a water-based paint factory from Erf 2, Nubu Industrial Park.</p>

<p><b>ENVIRONMENTAL MANAGEMENT:</b></p>	<p><i>Environmental Management Systems ISO14001</i></p>	<p>Sustainable principals:</p> <ul style="list-style-type: none"> <li>❖ Resource Management;</li> <li>❖ Natural Resources and Climate Change Management;</li> <li>❖ Product innovation and marketing</li> <li>❖ Wellness;</li> <li>❖ Purchasing; and</li> <li>❖ Manufacturing</li> </ul>
<p><b>LABOUR:</b></p>	<p><i>Labour Act. 11 of 2007</i></p> <p><i>Health and Safety Regulations (HSR) GN 156/1997 (GG 1617)</i></p>	<p>Applicant must adhere to all applicable provisions of the Labour Act and the Health and Safety regulations.</p>
<p><b>TREES:</b></p>	<p><i>National Forest Policy Government Gazette of August 3 2015 (5801)</i></p>	<p>Applicant must adhere to the following licence conditions:</p> <ul style="list-style-type: none"> <li>– <i>A permit needs to be obtained for the removal of protected trees.</i></li> </ul>
<p><b>WASTE:</b></p>	<p><i>Windhoek Municipality: Waste Management Regulations: Local Authorities Act 1992.</i></p>	<p>Applicant must adhere to the Windhoek Municipality: Waster Management Regulations. Act</p> <p>In terms of Chapter 3, Part 4:</p> <p><b>Section 27.(3),</b> <i>[the applicant] must notify the Council in writing prior to beginning with waster generation,</i></p> <p><b>Section 29. (4),</b> <i>Recyclable waste may only be deposited at a place set aside or approved by Council for such purposes,</i></p> <p><b>Section 29. (5)(a),</b> <i>it must be kept or stored on or in premises and in a suitable skip, container, tank vessel, bag or other receptacles which is kept within a waste storage place or area referred to regulation 17 or in any other structure or area approved by the Council.</i></p> <p>In terms of Chapter 6</p> <p><i>Permits and licences need to be obtained for the removal and storage of industrial waste.</i></p>
<p><b>WASTEWATER:</b></p>	<p><i>Sewerage And Drainage Regulations published under General Notice No. 312 of November 11, 2010, as set out in the Schedule.</i></p>	<p>In terms of Sections:</p> <p><b>Section 5. 39,</b> <i>Sewage or other prohibited discharges not to enter stormwater drains or roads, and</i></p> <p><b>Section 7. 52,</b> <i>Use of reclaimed water from industrial activities.</i></p>

## 5 METHODOLOGY

The following methodologies were used to compile this scoping report:

### 5.1 TOPOGRAPHICAL AND SITE INFORMATION

The topographical and site information was obtained by means of a site visit as well as a desktop study. The site visit was conducted during November 2019. The purpose of the site visit was to identify any existing structures on the site, topographical features that might be of importance and objects of heritage or cultural importance.

### 5.2 PUBLIC CONSULTATION

Urban Dynamics notified potentially interested and affected parties of the proposed application. Interested and affected parties were invited to register as stakeholders. A Background Information Document (BID) provided background on the nature and location of the activity, and information on where further information on the application or activity can be obtained and the manner in which the person to whom representation in respect of the application may be made. Simultaneously two newspaper notices were placed in separate newspapers for two successive weeks, and a notice of intent was placed at the site. Find attached the advertisement which was placed as **Appendix "C.1"**.

**Table 1: Public Consultation Process**

THE PROCESS:		DESCRIPTION OF THE PROCESS:				
<b>PLANNING PHASE</b>						
<b>I&amp;APs IDENTIFICATION:</b>		Key Interested and Affected Parties (I&APs) were identified and included in a list of I&APs ( <b>Appendix C.2</b> ).				
<table border="1"> <tr> <td>First Advertisements</td> </tr> <tr> <td>Second Advertisements</td> </tr> <tr> <td>Invite Stakeholders</td> </tr> <tr> <td>Consultation Ended</td> </tr> </table>		First Advertisements	Second Advertisements	Invite Stakeholders	Consultation Ended	Notices were placed within the Namibian and the New Era, for two consecutive weeks in two widely circulated newspapers, briefly describing the developments and their locality, inviting the public to register as I&APs ( <b>Appendix C.1</b> ). Urban Dynamics received requests to be placed on the I&APs list from the public ( <b>Appendix C.4</b> ).
First Advertisements						
Second Advertisements						
Invite Stakeholders						
Consultation Ended						
<b>INFORMATION PROVISION:</b>		A BID was compiled that contained essential information about the project ( <b>Appendix C.3</b> ).				
<b>PUBLIC COMMENTS PERIOD:</b>		The public comments period was between January 13 and February 7 2020.				
<b>TIMELINE FOR THE CONSULTATION PHASE</b>						
January 2020						
S	M	D	W	D	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	
February 2020						
S	M	D	W	D	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29





## 6 THE PROJECT

JF Paints (Pty) Ltd. intends to construct and operate a Dulux water-based paint manufacturing plant on Erf 2, Nubu Industrial Park. The manufacturing processes on the site will only be water-based paint. No solvent-based or oil-based paints will be produced in the manufacturing facility.

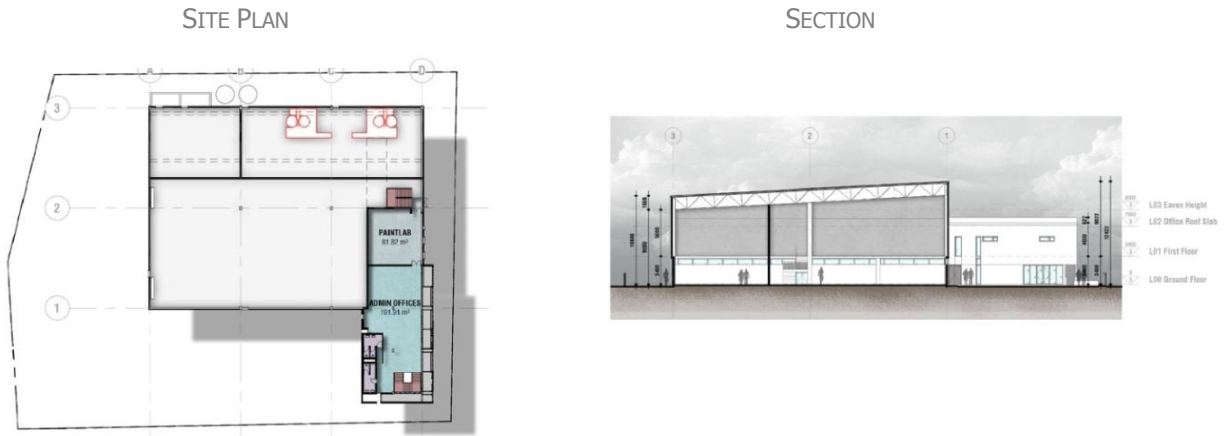
The client appointed Lund Consulting Engineers and Boogertman and Partners (Pty) Ltd. to plan, design and supervise the construction of the manufacturing plant. The facility will be copies of Dulux’s prescribed water-based manufacturing plants that is being used internationally. Boogertman and Partners’ concept layout for the project can be seen on figures 3 and 4.

**Figure 2:** *Concept Image of the Dulux Building*



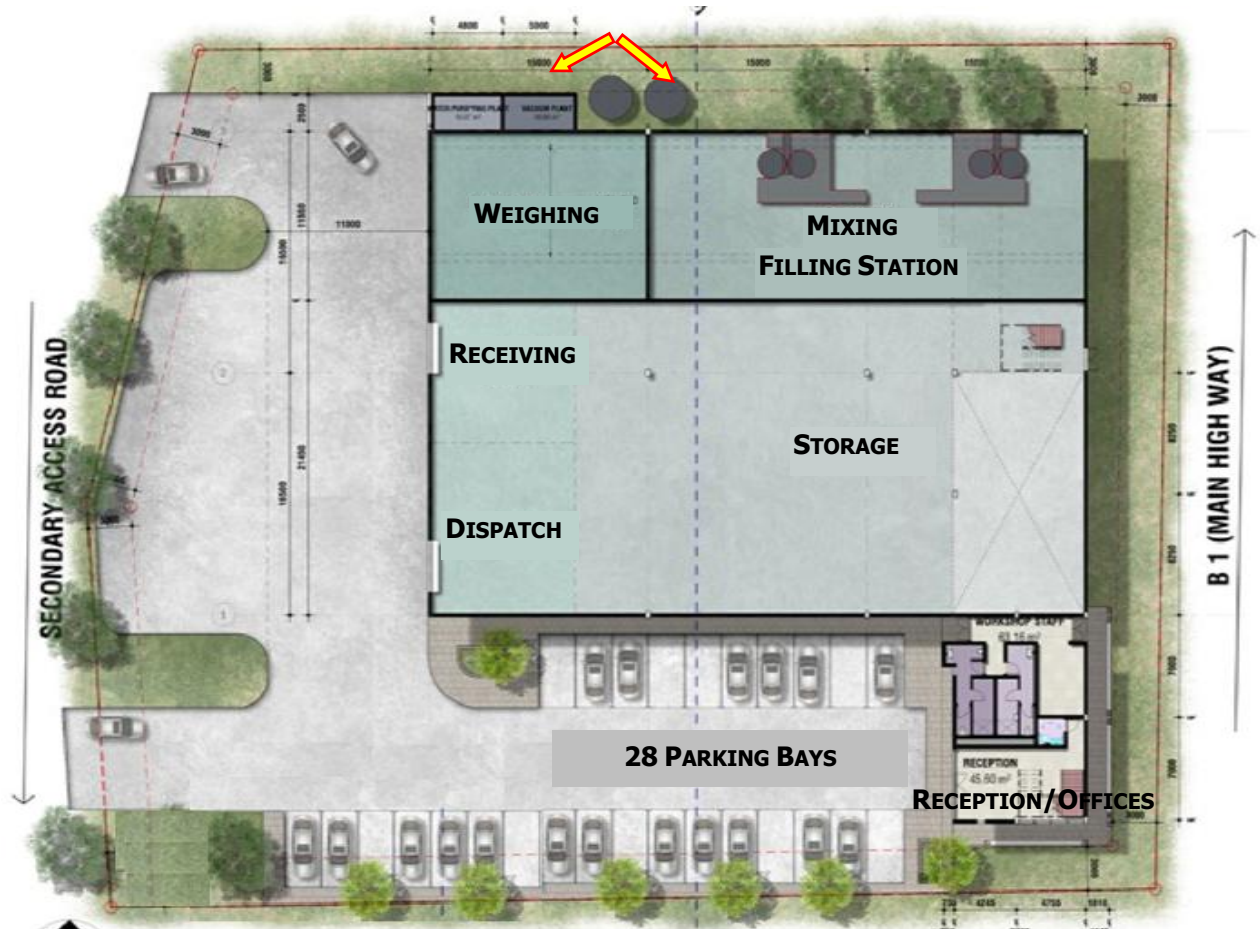
**Source:** *Boogertman and Partners (Pty) Ltd.,*

**Figure 3: Site Plan and Section of the Concept of the Dulux Building**



Source: Boogertman and Partners (Pty) Ltd., 2019.

**Figure 4: Concept Layout IN-HOUSE WASTEWATER TREATMENT FACILITY AND EXTRACTOR FANS**



Source: Boogertman and Partners (Pty) Ltd., 2019.



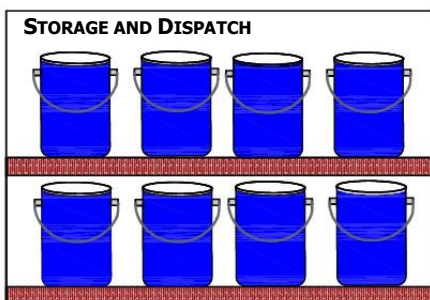
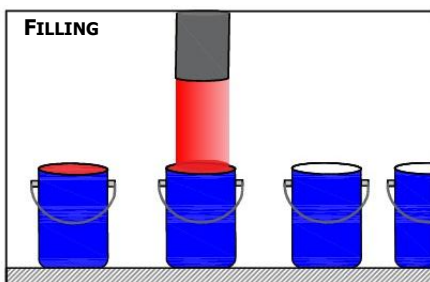
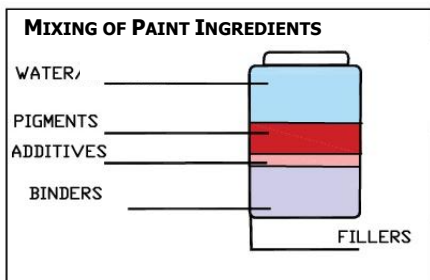
## 6.1 DULUX NAMIBIA'S PRODUCTION PROCESS

A summary of the water-based production process is provided below.

### 6.1.1 WEIGHING

The process starts with the weighing of powder and liquid raw materials. Every product has a specific formulation of raw material. All the different powders for a specific batch are placed into mixing tanks. Water is added by weight to produce the required quantity of paint.

**Figure 5: Production Line Illustration**



### 6.1.2 MIXING

All powders are placed into the mixing tanks. Water is added in different stages and different quantities into the mixing tanks. Mixing of the water-based paint is done in various modes, which depend on the final product to be manufactured.

Once the manufacturing process is complete, all required tests to establish colour (correctness) viscosity, spread rate coverage etc. are carried out. Once all tests are completed, the mixing tank is emptied via gravity to the filling station. Throughout the factory, extractor fans extract dust particles.

### 6.1.3 FILLING

The filling station pumps the paint into 20l, 5l, and 1l containers. Every drum/container is filled to an exact weight.

### 6.1.4 STORAGE AND DISPATCH

The finished paint is stored in storage areas. The storage areas are ventilated. Store-Tech will provide a racking system to store the final products according to Dulux Standards, which is based on the ISO 9001 Quality Management Systems. 20l drums are packed on pallets in quantities of 24. Total weight of a pallet is ±750kg. The racking height depends on the building's height. 5l and 1l packaging are packed at lower levels, which is accessible by hand.

### 6.1.5 ADMINISTRATION AREA

The factory will accommodate a reception, sales, and administration area on the southern side of the building.



## 6.2 CHEMICAL COMPOSITION OF RAW MATERIAL

The raw materials used within the production of the water-based paint will include:

- ❖ **Dilutend** – Water
- ❖ **Prime Pigments** – Titanium oxide [inorganic];
- ❖ **Colour Pigments** – [inorganic/organic] and liquid carbonates/fillers/clay/talc; and
- ❖ **Liquid Raw Materials** – Binders, stabilisers, preservatives, freeze/thaw protectors, driers, anti-skinning agents.

No solvent-based or oil-based paint will be produced in the manufacturing facility, and therefore no hazardous or flammable materials will be used on the site.

## 6.3 WATER REQUIREMENTS AND WASTEWATER

Water supply to the facility is by a NamWater connection, which will be pumped to a tank and then distributed to the ablution, factory, and office areas. The factory will require 88 kl of water per month and 4 kl per day.  $\pm 45\%$  per litre of water consumed across the manufacturing site is used as a raw material in the water-based product at the manufacturing site.

The client intends to install an in-house wastewater treatment facility on the site, as indicated on figure 4. This facility will treat all the liquids that are generated on-site. Wastewater generated in the facility will be collected in a “closed circuit” and reused within the manufacturing process.

## 6.4 SOLID WASTE MANAGEMENT

As mentioned above, the primary type of solid waste generated by the factory will be the “paint sludge”, dried paint, and little household waste generated by the workers on site.

Paint sludge and dried paint waste generated from the day to day operations will be safe to be disposed of at the City’s landfill. Manufacturing waste will be dumped on normal dumpsites, as it does not contain toxic or combustible parts.

## 6.5 POLLUTION RISK

The client expects that the facility will produce air and sound pollution during the mixing process. To prevent dust pollution, JF Paints will be installing a negative pressure ventilation system that will filter the air within the facility.

Though noise pollution is expected as a result of the electrical motors stirring the paint during the mixing process, the client will install sealed tanks, which will limit the noise created in the mixing process. By being located in an industrial area, this level of noise is expected and accepted in an industrial area.

## 6.6 ECONOMIC IMPACT

JF Paints invested N\$ 21.5 million in Namibian during 2019, and this is expecting to increase in 2020. Currently, JF Paints have two shops, in Windhoek and Otjiwarongo and their product are found in shops nationwide. The company employs 49 people, and the total is expected to increase to about to 69 after the facility is constructed.

## 7 DESCRIPTION OF THE SITE

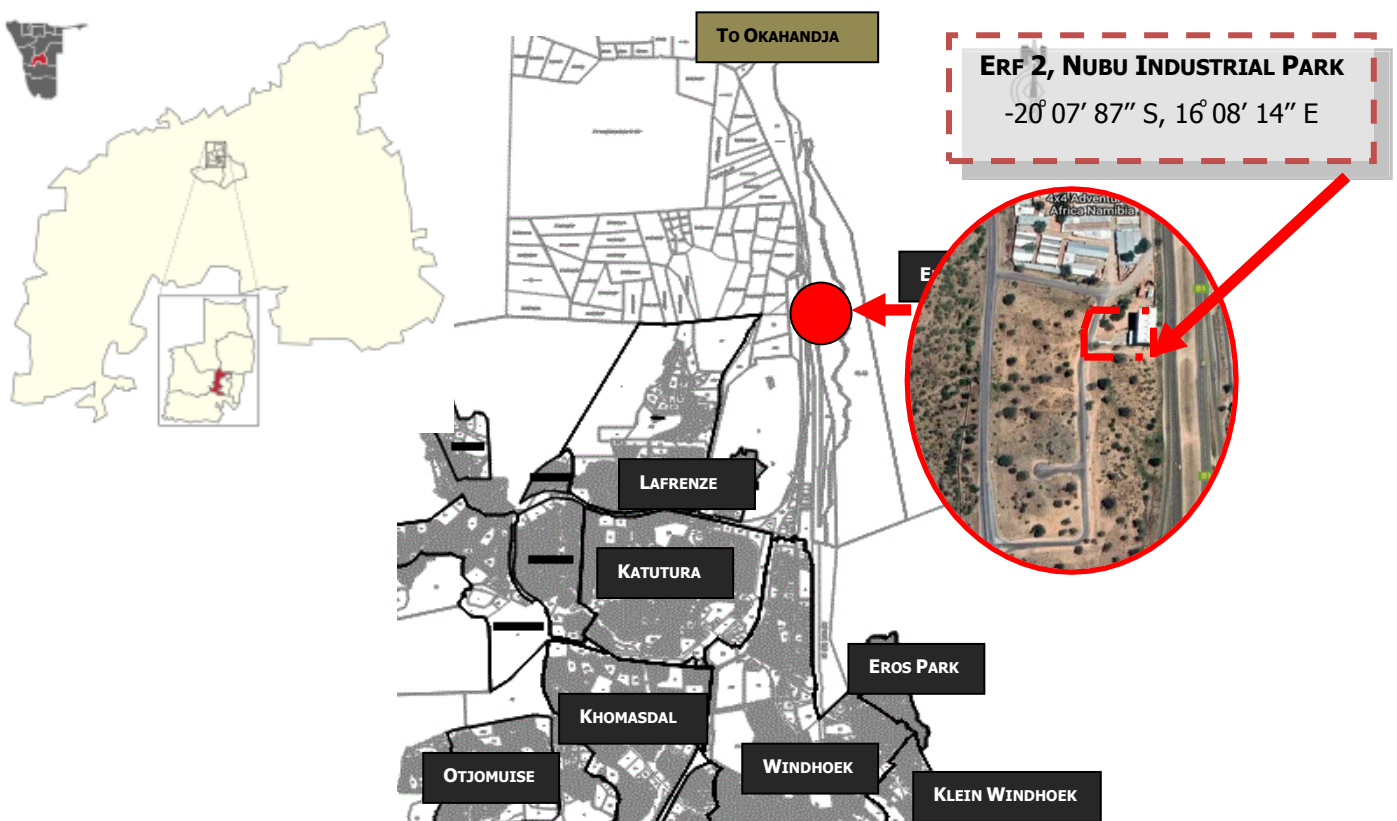
This section provides a description of the site relative to the surrounding urban area, existing use, services, and other infrastructure, topography, and any other features of the site.

### 7.1 LOCATION OF THE SITE

Erf 2, Nubu Industrial Park near Brakwater, is located at  $-20^{\circ} 07' 87''$  S,  $16^{\circ} 08' 14''$  E within the Windhoek Townlands, in the Khomas Region, as indicated in figure 6. Nubu Industrial Park falls under registration division "K".

The site is situated north-east of the city centre and west of the B1 road leading to Okahandja. The portion is currently vacant (Refer to **Appendix "B"** for the locality of the land).

**Figure 6: Erf 2, Nubu Industrial Park**



Source of Image: Google, 2019

## 7.2 SIZE AND ZONING

Erf 2, Nubu Industrial Park, is 4149 m<sup>2</sup> in size and is currently zoned as industrial.

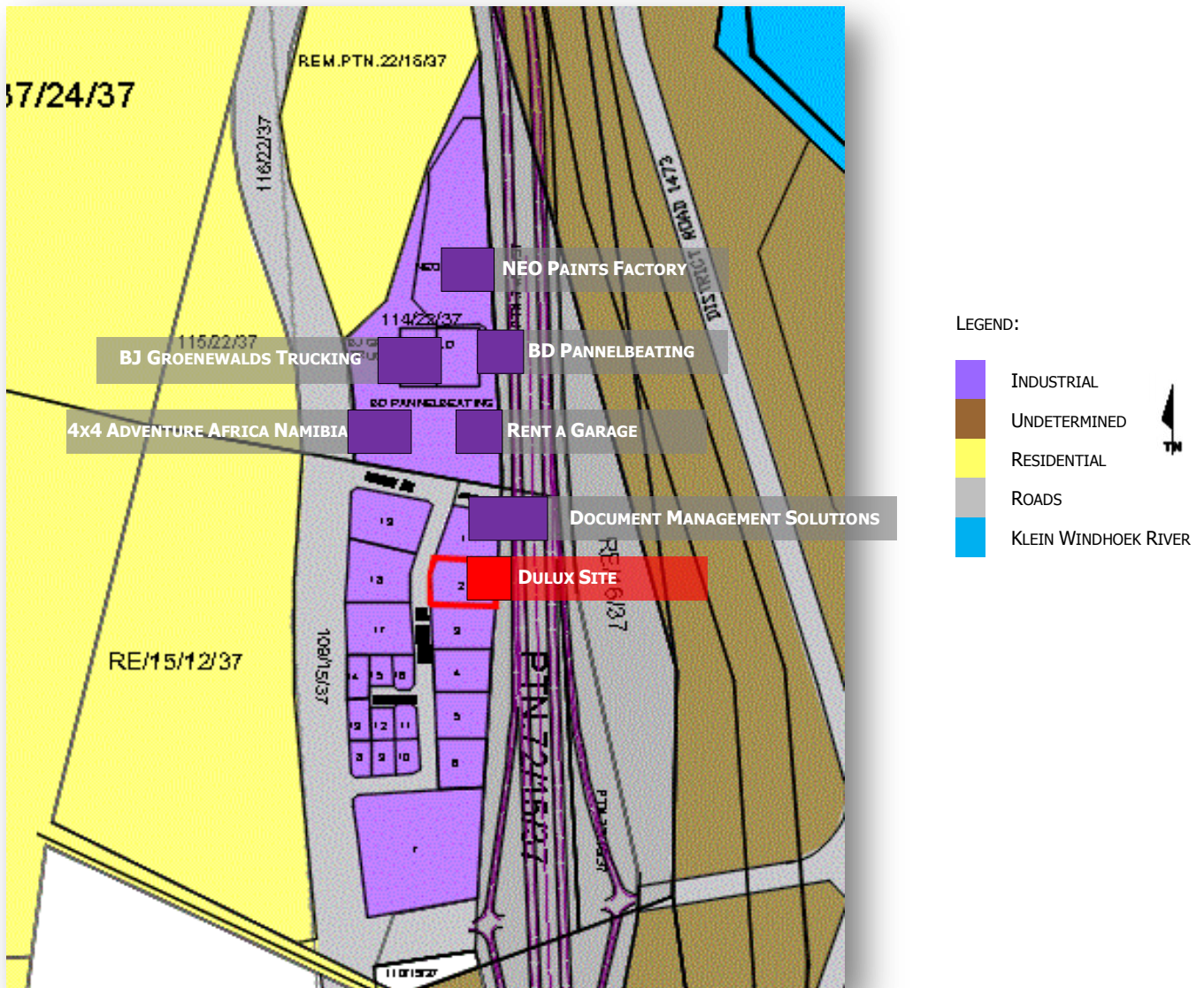
**Table 2: Erf Size and Zoning**

ERF	ERF SIZE / SQM	ZONING
ERF 2	4 149	Industrial

## 7.3 SURROUNDING LAND USE

According to the Windhoek Town Planning Scheme, the erf is zoned industrial, and the surrounding portions are industrial. Existing companies within the area include Document Management Solutions, Neo Paints' paint factory, Rent a Garage, 4x4 Adventure, BJ Groenewald Trucking CC, and BD Pannelbeating.

**Figure 7: Surrounding Land Use**



Source: Adopted from the Windhoek Town Planning Scheme

## 7.4 SERVICES AND INFRASTRUCTURE

### 7.4.1 WATER SUPPLY

Erf 2, Nubu Industrial Park's source of water supply is from the City of Windhoek's reticulated network.

The factory will require approximately 88 kl of water per month, which is about 4 kl per day. Furthermore, all water that is used for cleaning will be collected and be filtered and reused, which will minimise the water wastage.

### 7.4.2 ELECTRICAL SUPPLY

Erf 2's electricity supply is from NamPower's distribution network.

### 7.4.3 SEWER CONNECTION

The township is served by the sewerage system that is linked with Elisenheim's sewerage network.

**Figure 8: Services Connections**



### 7.4.4 ACCESS, PARKING AND LOADING AREAS

Erf 2, currently gains convenient access from Waldau Street. The layout makes provision for two access points, twenty-eight parking bays, and a loading area. Parking is provided in accordance with the parking requirements as set out in the Windhoek Town Planning Scheme for industrial use.

## 7.5 CULTURAL RESOURCES

No graves or other items of historical value were found or could be identified within the site boundaries.



## 8 DESCRIPTION OF THE NATURAL ENVIRONMENT

### 8.1 REGIONAL CLIMATE

On average, the Khomas Region receives 8-9 hours of sunlight a day. Table 3 indicates the climate indicators for the Khomas Region.

**Table 3: Climate & Rainfall**

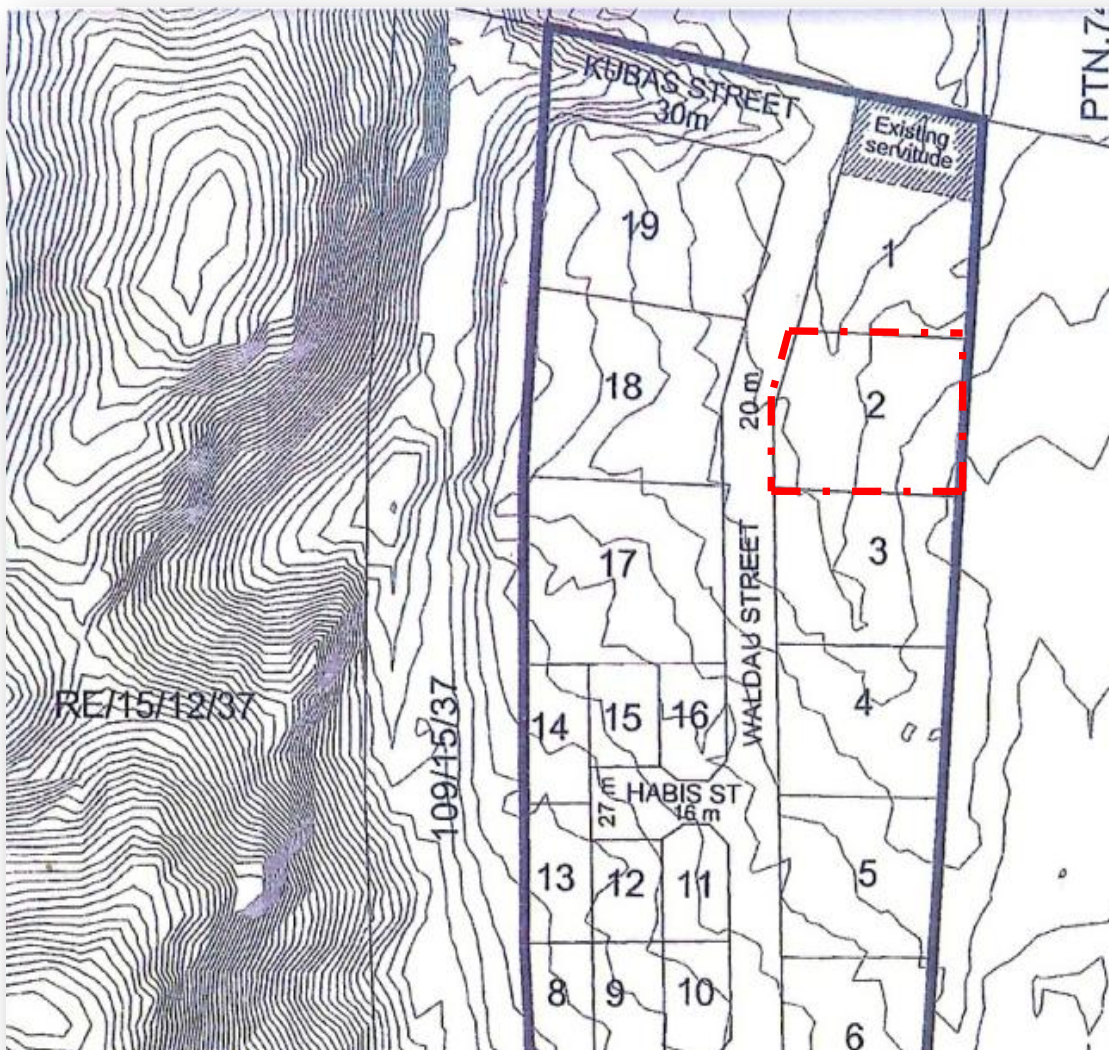
Wind Directions:	Predominately Easterly calm for more than 35% of the time
Mean Maximum in Summer (Nov/Dec):	28-30 Degrees Celsius
Mean Minimum in Winter (June/July):	4-6 Degrees Celsius
Average Annual Rainfall:	300-350 mm per year

Source - Adapted from (Mendelsohn, 2002)

### 8.2 TOPOGRAPHY

Erf 2's topography is flat and is not prone to flooding or infill.

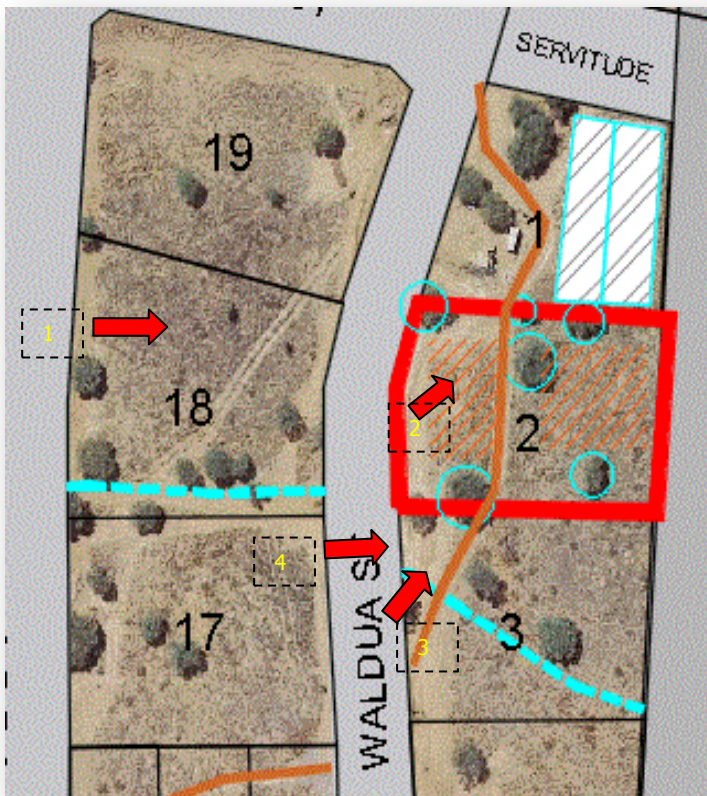
**Figure 9: Topography of Erf 2**



### 8.3 HABITATS ON SITE

As indicated on the images below, the site is undeveloped and is surrounded by one warehouse and vacant industrial land. The area is ecologically degraded and no longer pristine, and is not fully functional at the ecosystem level.

**Figure 10: The Existing Environment on Site**



VIEW (1) OF THE SITE – FROM THE ROAD



VIEW (2) OF THE SITE- BUILDING RUBBLE AND ERF WORKS

**LEGEND:**

- BUILDING RUBBLE
- TREES
- STREAM
- ERF 2'S BOUNDARY
- PHOTO TAKEN FROM
- FOOTPATH



VIEW (4) OF THE SITE –  
HYDROLOGICAL INFRASTRUCTURE



VIEW (3) OF THE SITE - TREES



The existing environment on the site includes the following:

- Image 1 shows the site from the road. The image shows undeveloped land and the warehouse on Erf 1, next to the site.
- From image 2, it seems that the site has been mechanically disturbed and is being used as a dumpsite for building rubble, presumably to be used as fill at a later stage.
- Little natural vegetation beyond scattered trees remains on the site. The images show the ecological alterations and remaining vegetation on Erf 2. Some Camelthorn trees (*Acacia erioloba*) (6 large and 4 small) and Prosopis trees (*Prosopis glandulosa*) (1) were identified on the site.
- Image 4, shows a stormwater intake, with the stormwater channelled across the neighbouring Erf 3.

The northern side of the erf next to Erf 1 accommodates a few trees. Due to the unregulated tree removal, erf works, and dumping of building rubble, no significant low-level vegetation remains in the area.

#### 8.4 STATUS OF PROTECTED AREAS

The site itself has no protected status.

#### 8.5 WATERCOURSES

The site is not located within the City of Windhoek's Groundwater Protection area, and no watercourses flow through the erf.

The stream on the image flow through Erf 3 and is formalised with hydrological infrastructure (culverts). The stream will not impact the site. The site is not in itself vulnerable to flooding, nor is it located within a known flood risk area.

#### 8.6 SUMMARY OF ENVIRONMENTAL CHARACTERISTICS

- The Khomas Region receives 8-9 hours of sunlight a day;
- In summary, due to the almost complete habitat alteration, the area is ecologically degraded and no longer pristine, and is not functional at the ecosystem level. The northern side of the erf next to Erf 1 accommodates a few trees. Due to the unregulated tree removal, site works, and dumping of building rubble, no significant low-level vegetation remains on the site;
- The topography is flat and is not prone to flooding or infill;
- The site itself has no status of a protected area; and

- The site is outside the City of Windhoek's Groundwater protection area.

There are no significant biodiversity-related issues for the manufacturing facility site, and there are no aspects that require further investigation. It is recommended that the facility proceeds without the need for further assessment, as provided for under articles 33 and 34 of the Environmental Management Act.

## 9 POTENTIAL IMPACTS

This section provides a description of the factory's potential positive and negative impacts.

### 9.1 SUMMARY OF POTENTIAL IMPACTS

The following is a list of potential impacts identified through the scoping process:

#### 9.1.1 BENEFITS OF THE PROJECT:

Some of the most important benefits of the project are the following:

- The company will inject capital into the local and national economy;
- Provide employment to skilled and unskilled workers;
- Provide products and services that provide comprehensive green solutions;
- Manufacturing water-based paints locally, thereby substituting imports from South Africa and
- Create a business that will have the possibility to export products versus import.

#### 9.1.2 POTENTIAL NEGATIVE IMPACTS:

Potential environmental and social impacts are the following:

- Potential removal of trees from the site;
- Impact of operational waste;
- Impact of dust pollution;
- Impact of noise pollution;
- Impact on the health and safety of workers; and
- Impact of wastewater.



## 9.2 POTENTIAL IMPACTS

### 9.2.1 PROJECT BENEFITS:

**Injection of capital into the economy.** JF Paints t/a Dulux Namibia invested N\$ 21.5 million in Namibian during 2019 and is expecting to invest more. Dulux Namibia will render service within the formal economy, employ staff pay rates and taxes, and spend money within the same economy. The development will pay national taxes and therefore inject capital in the economy. It is estimated that the brand will expand and start a network of new branches throughout Namibia. It is not clear at this stage which towns would be benefiting.

**Contribute towards job creation in Namibia.** The facility is expected to employ up to 69 workers, of which 20 will be new jobs. It is not clear at this stage which skill sets would be required.

**Provide products and services that provide comprehensive green solutions.** The Dulux brand is well known for green solutions and services, which is based on international standards. The new facility will provide ecological services to the Namibian market, and it will make use of sustainable methods to manufacturing there geological safe water-based paint.

**Substituting imports from South Africa.** By manufacturing water-based paints locally, it will be substituting imports from South Africa.

**Create a business that will have the possibility to export products versus import.** The client intends to export their products from Namibia to nearby African markets. This will generate foreign currency for Namibia.

### 9.2.2 POTENTIAL NEGATIVE IMPACTS:

**Potential removal of trees.** The client intends to accommodate the camelthorn trees (*Acacia giraffe*) (7) on the site, as indicated in the Boogertman and Partners concept image below.

**Figure 11: Accommodating Protected Trees**



Source: Boogertman and Partners (Pty) Ltd.,

However, the construction of the facility will have the potential to remove protected trees. Permits will need to be obtained if protected trees are being removed from the site.

**Impact on the health and safety of workers.** Manufacturing activities always have potential risk for workers. It can lead to potential slips, trips, falls, dust, and noise as a result of inadequate site management measures, which can expose workers to short and long term health problems. The client makes provision for the Labour Act, 1992, and Dulux health and safety regulations within the workspace.

**Impact of potential dust pollution.** The mixing of powder within the facility can generate and expose workers to excessive fugitive dust. Fugitive dust can have an impact on the worker's health. The client expects that the facility will produce air pollution during the mixing process. To prevent dust pollution, the client will be installing a negative pressure ventilation system that will filter the air within the facility.

**Impact of potential noise.** Though noise pollution is expected as a result of the electrical motors stirring the paint during the mixing process, the client will install sealed tanks, which will limit the noise created in the mixing process. However, by being located in an industrial area, this level of noise is expected in an industrial area.

**Impact of waste.** If no waste management plan is in place to address the recycling, storage, and disposal of waste at a facility, it can lead to pollution. As mentioned above, the primary type of solid waste generated by the factory is the "paint sludge," dried paint, and little household waste generated by the workers on the site. Paint sludge and dried paint waste generated from the day to day operations will be safe to be disposed of at the city's landfill. Manufacturing waste will be dumped on normal dumpsites, as it does not contain toxic or combustible parts and, therefore, will not lead to waste pollution.

**Impact of wastewater.** Industrial wastewater has the potential to contaminate a city's wastewater stream. However, the client intends to installed an In-House wastewater treatment facility to treat wastewater. The facility will reuse wastewater for the cleaning of machines. Finally, the reused water will be filtered and safe to flow into the wastewater stream of the city.

## 9.3 DEALING WITH RESIDUAL IMPACTS

### 9.3.1 RESIDUAL SOCIAL IMPACTS

No residual social impacts exist.

### 9.3.2 RESIDUAL ENVIRONMENTAL IMPACTS

The client made use of mitigation strategies to avoid or reduce impacts that were dealing with significant adverse effects. Mitigation measures have been incorporated into the Environmental Management Plan and the design of the facility. A summary of these mitigation measures is included below:

- The project has the potential to remove trees from the site. However, permits will need to be obtained if protected trees are being removed from the site. This is included within the EMP.
- The project has a potential impact on the health and safety of the workers of the facility as a result of their work environment. However, this will be limited, and a method to limit it is contained in the EMP.

**10 SUMMARY AND APPLICATION**

**10.1 POTENTIAL IMPACTS, AVOIDANCE MEASURES, AND RESIDUAL IMPACTS**

POTENTIAL IMPACT:	MEASURES:			RESIDUAL IMPACTS:
	Avoidance:	Mitigation:	Enhancement:	
<b>POTENTIAL POSITIVE IMPACTS:</b>				
<i>Injection of capital into the local and national economy:</i>			Dulux Namibia will render service within the formal economy, employ staff pay rates and taxes, and spend money within the same economy.  Dulux Namibia will pay national taxes and inject capital into the economy.	
<i>Employing skilled and unskilled workers:</i>			By providing jobs, the facility stimulates economic growth in the city and region.  Emphasis must be placed on recruiting and employing local people at the facility, and the only specialist should be recruited from outside the area.	
<i>Provide comprehensive green solutions:</i>			Comprehensive green solutions for the Namibian market.	
<i>Substituting imports from South Africa.</i>			Local manufacturing will substituting imports from South Africa.	
<i>Export products versus import.</i>			Exports will generate foreign currency for Namibia.	

POTENTIAL IMPACT:	MEASURES:			RESIDUAL IMPACTS:
	Avoidance:	Mitigation:	Enhancement:	
<b>POTENTIAL NEGATIVE IMPACTS:</b>				
<b>Potential Removal of Trees:</b>	<i>Avoid the removal of protected trees from the site.</i>	A <b>Tree Management Plan</b> will be implemented at the site; and  Protected trees are included within the concept layout.		<i>There is always a potential that protected trees can be damage.</i>
<b>Potential Impact of Waste:</b>	<i>Avoid water and soil pollution as a result of waste.</i>	A <b>Waste Management Plan</b> ; and an in-house wastewater treatment facility will be implemented at the facility.		
<b>Potential Air Pollution Risk:</b>	<i>Avoid air pollution, which can lead to health impacts on workers.</i>	Extractor fans with filters will be installed at the facility.		
<b>Potential Noise Pollution:</b>	<i>Avoid noise pollution, which can lead to health impacts on workers.</i>	Mixing tanks will be sealed during the steering of the paint to prevent noise.		
<b>Potential Wastewater Pollution Risk:</b>	<i>Avoid water pollution, which can impact the City of Windhoek's reusable water sources.</i>	An in-house wastewater treatment facility will clean and recycle water, which will be reused in the facility to clean the tanks.		
<b>Potential Health and Safety Impacts on Workers:</b>	<i>Avoid impact on worker's health.</i>	<b>Safety Strategy Disaster Prevention Plan</b> is to be implemented at the facility.  The following need to be included: <ul style="list-style-type: none"> <li>- Safety wear for workers.</li> <li>- Clean drinking water for workers,</li> <li>- First aid training,</li> <li>- A first aid kit on-site, and</li> <li>- Emergency site notices.</li> </ul> Social Security for workers.		<i>Not all health and safety aspects can be prevented.</i>

The screening process turned up no significant biodiversity-related issues for the current development site, and there are no aspects that require further investigation. It is recommended that the development proceeds without the need for further assessment, as provided for under articles 33 and 34 of the Environmental Management Act.

## 11 APPLICATION FOR ENVIRONMENTAL CLEARANCE

JF Paints trading as Dulux Namibia intends to operate a Dulux water-based manufacturing facility on Erf 2, Nubu Industrial Park, Windhoek. Dulux water-based paint is a proven sustainable ecological friendly no hazardous paint product, and given the findings of this baseline investigation, there are no current or future environmental impacts identified as a result of the proposed paint manufacturing facility's actions.

The application form for an Environmental Clearance Certificate as per Section 32 is attached as **Annexure "1"** to this Scoping Report.

## 12 REFERENCES

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