



PREPARED FOR:

EcoPartners, NuVest Recovery Solutions (PTY) LTD

PREPARED BY:



Environmental Site Sensitivity Verification Report

Site ID:	NuVest Recovery Solutions	Contractor:	EIMS
Location:	110 Batoliet road, Valley Settlements, Meyerton, South Africa	Inspector:	Jessica Jordan
Client representative:	Ian Tunncliffe, EcoPartners	Inspection Date:	27-11-2023

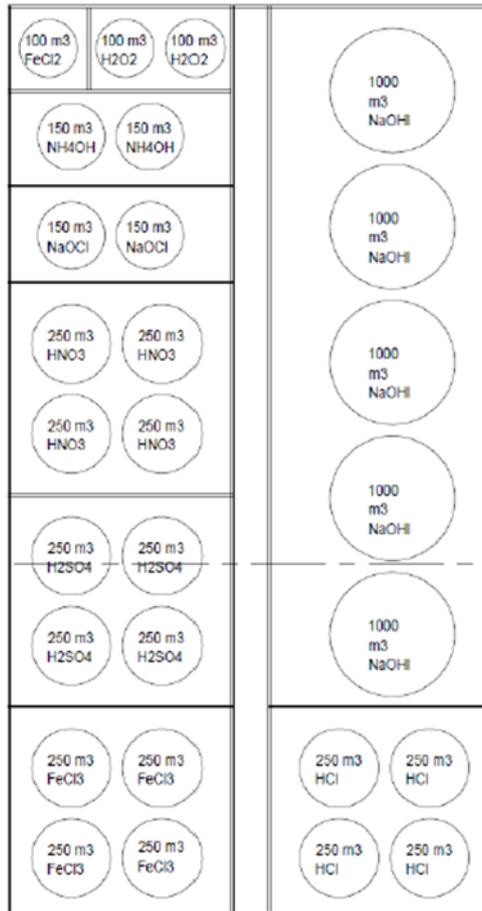
1. Background

Background of the project: The applicant wishes to develop a chemical manufacturing plant in Gauteng. Approximately 30 tonnes of chemicals will be manufactured daily at the plant. The plant will specialize in the production of sodium hydroxide (NaOH), chlorine (Cl₂), and hydrogen (H₂) through the chlor-alkali process. These products will then be processed further to produce hydrochloric (HCl) acid, bleach and caustic lye. Along with manufacturing, the products and commodity chemicals will be stored on-site.

Project Aspects:	Yes	No	Details (provide specifications)	Location (DD MM SS)	
				Latitude	Longitude
❖ NuVest Recovery Solutions, 110 Batoliet Road, Valley settlements. Meyerton, South Africa	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Development of chemical manufacturing plant	Start 26° 30' 36.31" S	28° 02' 37.43" E
				Mid 26° 30' 38.20" S	28° 02' 40.57" E
				End 26° 30' 39.92" S	28° 02' 43.27" E
❖ Other:	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

2. Site Layout Plan

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Site Layout

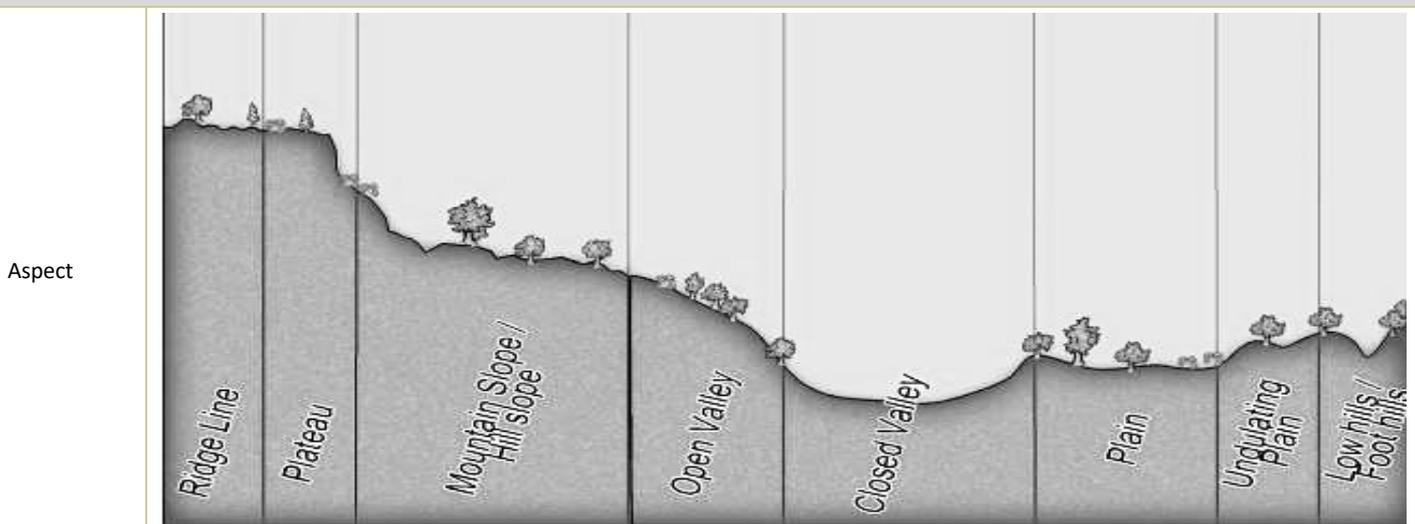
2.

2.1 DEA Screening Tool Assessment: NuVest, Meyerton

Aspect	Very High	High	Medium	Low
Agriculture		X		
Animal species			X	
Aquatic Biodiversity				X
Archaeological and Cultural Heritage				X
Civil Aviation		X		
Defence Theme				X
Palaeontology	X			
Plant Species Theme				X
Terrestrial Biodiversity	X			

3. Site Assessment

3.1 Gradient (indicate the general gradient characteristics of site)



Aspect

NuVest, Meyerton	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
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Is the site (NuVest) located on or in the immediate vicinity of any of the following:

	Reclamation site and pipelines		
	Yes	No	Comment
Erosion Channels or areas of severe erosion/ destabilized soils	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Wetlands (within 32m)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Unstable slopes or geological features (rocky outcrops)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Bare areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Surface has been cleared for construction.
Other Sensitive or risk areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are any existing servitudes and structures directly or indirectly affected by the proposed sites and routes (e.g. Eskom, public road servitudes and restrictions- 60m from National Road, farmer's water/irrigation supplies, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Entry to property is only accessible from the Batoliet road. There is an existing servitude road, serving as the current entrance. The client wishes to develop a second entrance (second servitude road) to serve as the main entrance, whereas the existing entrance will serve as the exit, after development.

3.2 Vegetation

Which of the listed descriptions best describes the general groundcover on and around the site?

Natural veld - good condition <input type="checkbox"/>	Natural veld with scattered aliens <input type="checkbox"/>	Natural veld with heavy alien infestation <input type="checkbox"/>	Veld dominated by alien species <input checked="" type="checkbox"/>	Gardens <input type="checkbox"/>
Sport field <input type="checkbox"/>	Cultivated land <input type="checkbox"/>	Paved surface <input checked="" type="checkbox"/>	Building or structure <input checked="" type="checkbox"/> or other	Bare soil <input checked="" type="checkbox"/>
Comments on vegetation composition:	Approximately 30% of land surface consists of vegetation. The vegetation consists of mainly grasses and weed species. The rest of the surface is bare and/or paved.			
Comments on weed species/type	Eucalyptus trees, Agaves, grasses, <i>Bidens Pilosa</i> , Black Wattle.			

Land cover/ use description: Describe the land uses on the site

NuVest	Development of a chemical plant and storage tanks on an industrial property. The surrounding land uses are also primarily industrial.
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4. General Comments and/or Recommendations

Clients want to remove eucalyptus trees for construction of a road, and plant trees at the entrance of the site (on municipal ground).
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Image is taken facing the north-western side of the property, towards the entrance to the Batoliet road (shown on the left). Eucalyptus trees along border of property. Client wishes to remove the trees to pave a road along the site boundary.



Image is taken facing the south-western side of the property (the entrance to the Batoliet road will be on the right). A newly developed administration building is currently being constructed for NuVest Chemicals (right). The majority of the site's surface has been cleared.



Photo is taken in northern corner of site, behind the secondary wall.



Photo is taken facing the southern side of the site (the entrance is situated behind the view). On the left is construction materials for the existing construction activity. The buildings are the current office buildings and warehouses. The property boundary is marked by the white concrete pillar fence. The rows of eucalyptus trees are where the planned road is going to be constructed.



Photo is taken at the Northern corner of the property, behind the primary wall.



Photo is taken towards the South-Western area of the property. The warehouse and office are seen on the left and the existing property to be demolished is seen in the middle at the far back. The property boundary is marked by the wall on the right.



❖ The first warehouse with a concrete slab leading towards the second warehouse.



❖ Photo is taken facing the northern side of the site, this road will be paved during construction phase. The warehouses are situated on the left.



The photo is taken facing the South-western boundary of the site, with the wall on the left marking the boundary of the property. The second warehouse is situated on the right, and on the left the emergency shower with the accompanying Jojo tank is on the concrete slab.



Photo is taken facing the South-eastern corner of the site, with the warehouses situated on the left.



The inside of the first warehouse, at the back is the mixing tank.



❖ The first warehouse.



❖ South-western corner of the site with remaining vegetation.



❖ Majority of the vegetation consists of grasses.



- ❖ Sparse distribution of Wattle trees



- ❖ On the south-western side of the property, existing property on the right (to be demolished). The wall marks the boundary of the property.



- ❖ Area between the warehouses (right) and the existing building (left). Photo is taken facing towards the north-western direction.



❖ Inside the second warehouse. Approximately 480 cans (25kg) of HTH chlorine granules.



❖ Sodium hypochloride chemicals (bleach) in 15 m³ containers. Approximately 360 m³



❖ White residue on ground surface, possibly from wash off of concrete slab (cement powder).





Existing building to be demolished.



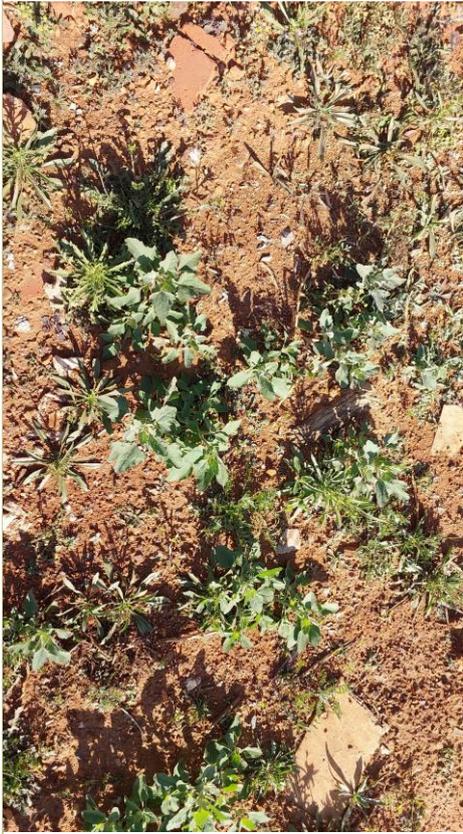
Area next to the southern aspect of the site.





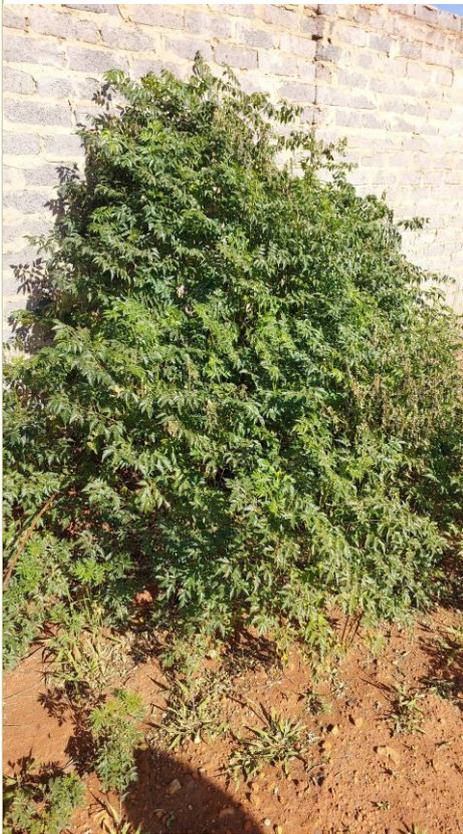
❖

Ground cover vegetation found on site, (*Gazania*)



❖

A *Seringa* tree found on site.





❖ Current excavation site on site, on the northern aspect of the property.



❖ Current excavation site on site, on the northern aspect of the property.





7. Verification findings and motivation:

Assessment for specialist studies and motivation:					
Screening Tool Specialist Study Required:	Level of Sensitivity:	Suggested Sensitivity:	Required Assessment level of		Motivation
Aquatic Biodiversity	Low	Low	None.	<input type="checkbox"/>	No waterbodies were found within 50m of site boundaries or within site.
			Compliance Statement	<input checked="" type="checkbox"/>	
			Full Assessment	<input type="checkbox"/>	
			Other	<input type="checkbox"/>	
Archaeological and Cultural Heritage	Low	Low	None.	<input checked="" type="checkbox"/>	Area has been disturbed to such an extent that there are low chances of heritage findings.
			Compliance Statement	<input type="checkbox"/>	
			Full Assessment	<input type="checkbox"/>	
			Other	<input type="checkbox"/>	
Palaeontology	Very High	Low	None.	<input checked="" type="checkbox"/>	The excavation for the development of the plant and tank storage system will most likely not intersect palaeontology features.
			Compliance Statement	<input type="checkbox"/>	
			Full Assessment	<input type="checkbox"/>	
			Other	<input type="checkbox"/>	
Terrestrial Biodiversity	Very High	Low	None.	<input type="checkbox"/>	

			Compliance Statement	<input checked="" type="checkbox"/>	The assessment must be prepared by a registered terrestrial biodiversity specialist. Area is disturbed to such an extent where natural processes have been interrupted and minimal indigenous species are found.
			Full Assessment	<input checked="" type="checkbox"/>	
			Other		
Civil Aviation	High	Low	None.	<input checked="" type="checkbox"/>	The nature of the development (storage facilities, chemical plant and a tank farm) and components of the development during the construction and operational phases will not pose any risk to commercial air traffic. Therefor no specialist aviation studies will be undertaken. However, SA CAA will be included in the I&AP database and requested to comment.
			Compliance Statement	<input type="checkbox"/>	
			Full Assessment	<input type="checkbox"/>	
			Other		
Plant species theme	Low	Low	None	<input type="checkbox"/>	A compliance statement must be prepared by registered botanical/ecological specialist. Area is disturbed to such an extent where natural processes have been interrupted and minimal indigenous species are found. The majority of the biodiversity consists of alien vegetation.
			Compliance Statement	<input checked="" type="checkbox"/>	
			Full Assessment	<input type="checkbox"/>	
			Other		
Defence Theme	Low	Low	None	<input checked="" type="checkbox"/>	
			Compliance Statement	<input type="checkbox"/>	
			Full Assessment	<input type="checkbox"/>	
			Other		
Agriculture Theme	High	Medium Low	None.	<input type="checkbox"/>	<30% of site is categorized as high sensitivity, therefor the site can be considered as a medium sensitivity site. A compliance statement needs to be prepared by a registered soil/agricultural specialist. Due to removal of most topsoil and land reworks for construction, the potential for and impact on agriculture is low. The surrounding area is also currently utilied for industrial purposes.
			Compliance Statement	<input checked="" type="checkbox"/>	
			Full Assessment	<input type="checkbox"/>	
			Other		
Animal Species	Medium	low	None.	<input type="checkbox"/>	The medium sensitivity is attributed to the presence of the <i>Mammalia-Crocidura macquassiensis</i> , however the chances of locating these shrews on-site is low as they prefer moist habitats and wetlands for habitats. There is no surrounding wetland. No indigenous species were observed on site, save for a couple of Crowned Lapwings (no visible nest was seen).
			Compliance Statement	<input checked="" type="checkbox"/>	
			Full Assessment	<input type="checkbox"/>	
			Other		

Guidance notes:

- An applicant intending to undertake an activity identified in the scope of this protocol, on a site identified by the screening tool as being of “very high” or “high” sensitivity for terrestrial animal species must submit a Terrestrial Animal Species Specialist Assessment Report.

- An applicant intending to undertake an activity identified in the scope of this protocol on a site identified by the screening tool as being of “medium sensitivity” for terrestrial animal species must submit either a Terrestrial Animal Species Specialist Assessment Report or a Terrestrial Animal Species Compliance Statement, depending on the outcome of a site inspection undertaken in accordance with paragraph 4.
- An applicant intending to undertake an activity identified in the scope of this protocol on a site identified by the screening tool as being of “low” sensitivity for terrestrial animal species must submit a Terrestrial Animal Species Compliance Statement.
- Where the information gathered from the site sensitivity verification differs from the screening tool designation of “very high” or “high”, for terrestrial animal species sensitivity and it is found to be of a “low” sensitivity, then a Terrestrial Animal Species Compliance Statement must be submitted.
- Where the information gathered from the site sensitivity verification differs from the screening tool designation of “low” terrestrial animal species sensitivity and it is found to be of a “very high” or “high” terrestrial animal species sensitivity, a Terrestrial Animal Species Specialist Assessment must be conducted.
- If any part of the development falls within an area of confirmed “very high” or “high” sensitivity, the assessment and reporting requirements prescribed for the “very high” or “high” sensitivity, apply to the entire development footprint. Development footprint in the context of this protocol means, the area on which the proposed development will take place and includes the area that will be disturbed or impacted.