

	Scope of Work	Hendrina Power Station
---	----------------------	-------------------------------

Title: **Alien Invader Species Monitoring,
Control, and Eradication**

Document Number: **380-137735**

Alternative Reference
Number: **N/A**

Area of Applicability: **Hendrina Power Station**

Functional Area: **All**

Revision: **0**

Total Pages: **25**

Next Review Date: **March 2028**

Disclosure
Classification: **Controlled Disclosure**

Content

	Page
1. Introduction	3
2. Supporting Clauses	3
2.1 Scope	3
2.1.1 Purpose	5
2.1.2 Integrated Business Improvement objectives	5
2.2 Normative/Informative References	5
2.2.1 Normative	5
2.2.2 Informative	5
2.3 Definitions	6
2.4 Abbreviations	6
2.5 Roles and Responsibilities	6
2.6 Process for Monitoring	7
2.7 Related/Supporting Documents	7
3. Scope of Work	7
3.1 Control methods to be used:	8
3.2 Demarcated Management Units at Hendrina Power Station	11
3.3 Deliverables	22
3.3.1 Environmental Management Activities	22
Alien Invader Species services shall be done as per the Scope of Work. Changes to the SOW will be made as and when required and as per agreement between the Service Manager and the Contractor. Submit weekly progress reports, monthly waste manifests, update the eradication plan on a monthly basis	22
3.3.2 Service and Standards	23
3.3.3 Equipment types and techniques	23
4. SHEQR requirements	24
5. Records to be kept.	24
6. Notes / Forms / Appendices / Annexures	24
7. Acceptance	24
8. Revisions (Update table detailed content as per current revision)	25
9. Development Team	25
10. Acknowledgements	25

CONTROLLED DISCLOSURE

1. Introduction

National Environmental Management: Biodiversity Act 10 of 2004 provides for Duty of Care relating to listed invasive species. Section 73 (1) of this Act provides,

“a person authorised by permit in terms of section 71 (1) to carry out a restricted activity involving a specimen of a listed invasive species must take all the required steps to prevent or minimise harm to the biodiversity.”

(2)

“a person who is the owner of land on which a listed invasive species occurs must: (b) take steps to control and eradicate the listed invasive species and to prevent it from spreading; and (c) take all the required steps to prevent or minimise harm to biodiversity.”

In 2018 Eskom Hendrina Power Station undertook a study and compiled a plan to monitor, control and eradicate alien invasive species on its areas of control (*Envirotech Report 2018; HSPPIN 044*). In 2023 the Station was issued with a permit (*Permit number: 50738231117124904*) for carrying out restricted activities of alien species or listed invasive species.

Condition 1.7 of the permit states,

“The Permit Holder must prevent the spread of permitted species and must control any specimen that spread.”

Condition 2.2 also states that;

“The permit holder must ensure that the plants do not spread to the surrounding environment or outside the permitted area.”

In 2025, the power station, through Eskom Biodiversity Centre of Excellence, contracted the services of Endangered Wildlife Trust / Naledi Ya Thlago to conduct field assessment and observations and update the alien and invasive management plan and detail methodologies for eradication and control of the species.

This document is to give effect to the requirements of these documents and outline the scope of work for eradication, management and control of alien invader species at Hendrina Power Station and its associated facilities.

2. Supporting Clauses

2.1 Scope

Description of the site

This scope of work applies to the property of the Eskom Hendrina Power Station, which is located approximately 40 km south of Middelburg town in Mpumalanga Province and falls within the Steve Tshwete Local Municipality which forms part of the Nkangala District Municipality. The boundaries of the study area are shown in Figure 1 (below). Pullenshope village is within the study area. The site also includes the Ash Disposal Facility, a rehabilitated borrow pit on the north-western side of the Ash Disposal Facility, a Sewerage treatment plant, a Landfill site, an open area of land immediately west of the power station, a Golf course, and the power station itself with all associated infrastructures.

Immediately adjacent to the station on the eastern side and extending northwards from there is the Liberty Coal Mine. This includes current operations as well as rehabilitated areas to the north of the

CONTROLLED DISCLOSURE

mine. In all other directions adjacent to the study area and beyond is agricultural land that includes a mixture of cultivated lands and patches of remaining natural grassland. There are several wetlands and water bodies near Hendrina Power Station.

Key vulnerabilities to invasion on site include the following:

- Remaining areas of natural grassland on site, which house the most important biodiversity within the study area.
- Wetland areas, both natural and secondary.
- Other ecologically functional areas on site.
- Neighbouring areas that may potentially be vulnerable due to spreading of invasive alien species on site.



Figure1: Location and extent of Hendrina Power Station (marked in red)

CONTROLLED DISCLOSURE

2.1.1 Purpose

The purpose of this Scope of Work is to detail and provide information on the following:

- Control and eradication of listed invasive species and the method(s) to be adopted for specific species concerned and the environment in which they occur.
- Actions to be taken to control and eradicate listed invasive species in a manner that may cause the least possible harm to biodiversity and damage to the environment.
- The methods to be employed to control and eradicate listed invasive species and how it will be directed at the offspring, propagating material and re-growth of such invasive species in order to prevent such species from producing offspring, forming seeds, regenerating or re-establishing itself in any manner.

2.1.2 Integrated Business Improvement objectives

IBI verification mechanisms and Error Prevention tools that can be applied include Compliance to approved policies, procedures, controls, and standards.

2.2 Normative/Informative References

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.2.1 Normative

- [1] Alien invasive Species Monitoring, Control, and Eradication Plan -HSPPIN044
- [2] Endangered Wildlife Trust / Naledi Ya Thlago, *Invasive Species Monitoring, Control, and Eradication Plan for Hendrina Power Station: 2025 Report*
- [3] Guidelines for monitoring and eradication as required by Section 76 of the National Environmental Management: Biodiversity Act, 2004, Act No. 10 of 2004 (NEMBA)
- [4] National Environmental Management: Biodiversity Act, Act No. 10 of 2004. Alien and Invasive Species List, 2016.
- [5] National Environmental Management: Biodiversity Act, Act No. 10 of 2004. Alien and Invasive Species Regulations, 2014.
- [6] Alien Invader Species Permit Number 50738231117124904

2.2.2 Informative

- [1] Monitoring, Measurement, Analysis and Evaluation Procedure: HSPPIN023
- [2] Land and Biodiversity Policy: 32-736
- [3] Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act 36 of 1947, Pest Control Operator Regulations GG No 34020

CONTROLLED DISCLOSURE

2.3 Definitions

- **Alien Invader Species:** Plants, animals, pathogens and other organisms that are non-native to an ecosystem, and which may cause economic or environmental harm or adversely affect human health. In particular, they affect adversely upon biodiversity, including decline or elimination of native species- through competition, predation, or transmission of pathogens- and the disruption of local ecosystems and ecosystem functions.
 - **Environment:** Surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelationships
- Note 1 to entry: Surroundings can extend from within an organization to the local, regional, and global system.
- Note 2 to entry: Surroundings can be described in terms of biodiversity, ecosystems, climate, or other characteristics.
- **Environmental Aspect:** Element of an organization's activities or products or services that interacts or can interact with the environment.
 - **Environmental Impact:** Environmental impact changes to the environment, whether adverse or beneficial, wholly, or partially resulting from an organization's environmental aspects.

2.4 Abbreviations

Abbreviation	Explanation
AIP	Alien Invader Plants
NEMBA	National Environmental Management: Biodiversity Act, No. 10 of 2004
SDS	Safety Data Sheets
SHEQ	Safety, Health, Environment, and Quality

2.5 Roles and Responsibilities

Role	Responsibility
Contract Manager	Management of the contract and scope of work
Environmental Manager & Officers	To report and provide feedback on the performance of the contract
Power Station General Manager	To provide resources (human & finance) for the implementation of this scope of work
Contractor	Eradicate and control alien invader species on site, properly dispose of plant discards.

CONTROLLED DISCLOSURE

2.6 Process for Monitoring

- Monitoring will be conducted as per the procedure Monitoring Measurement Analysis and Evaluation (HSPPIN023)
- Site inspections to confirm work progress (photos).

2.7 Related/Supporting Documents

- Eskom SHEQ Policy (32-727)

3. Scope of Work

The scope includes the provision of the following services:

- Provide a comprehensive Eradication, Management and Control of alien invasive plants species for period of 60 months and the main objective is the eradication of alien plants and control of permitted alien trees using the correct method to prevent the spread and invasion of nearby environment.
- Ensure that all sites and affected properties remain alien plants free environment.
- Provide general alien invader plants control and management services for plants such as, but not limited to, trees, shrubs, bushes, reeds, grasses etc.
- The contractor shall ensure that all alien invader plants are eradicated and controlled especially where a defect or a call out is made.
- The expectation is that there should be no alien invader plant species regrowth noticed after chemical treatment if correct dosages are used for at least 6 months.
- Should there be regrowth noticed within 6 months of chemical treatment the supplier shall do a follow up treatment at no cost to Eskom.
- Provide a detailed monthly plan 2 days after receiving the purchase order.
- Maintain and provide regular (weekly) reports on work done.
- Weekly inspections will be conducted together with the service employer representative to verify work done.
- Attending all audits, meetings and inspections requested by Eskom on as and when required.
- The contractor shall furnish all supervision, management, labour materials and equipment necessary to accomplish the eradication, monitoring, and control, herbicide application and alien plants removal components of the alien invader species management programme.
- The contractor shall also provide detailed, site-specific recommendations for structural and procedural modifications to aid in alien invader species removal.

CONTROLLED DISCLOSURE

- A competent fall protection developer must be appointed to ensure that working at height activities are done safely. All employees working at heights must also be trained on working at heights.
- A registered pest control operator shall apply herbicides or shall supervise the application of herbicides. The contract covers proper eradication and control of alien invasive plants through application of appropriate control methods in the specified areas within Hendrina power station. The total area to be controlled within the power station is approximately 957 hectares as shown in figure 2.
- A detailed report in line with Pest Control Operator Regulations requirements and NEMBA guidelines on Monitoring, Control and Eradication Plans, use of pictures after completion of each stage of work should be submitted to Hendrina Power Station Environmental Department. (Permit will be required prior to taking of pictures on site)
- The contractor will be required to transport employees and equipment to and from/ around the management working areas.

3.1 Control methods to be used:

Manual Methods

1. Uprooting for small plants (30 cm), immature or shallow-rooted, and after rain.
 - Use a pair of gloves and grip the plant firmly around the stem just above the root.
 - Pull hard and remove the plant, roots and all.
 - Kicking around the root area of the plant may help to loosen the root system, making it easier to pull out the plant.
 - Shake the excess sandy material from the root ball to ensure a higher mortality rate and make the plant easier to stockpile and lighter to transport.
- Treat the seed bed with herbicide after uprooting to ensure that no regrowth of alien invader species occurs.
- Ensure minimal disturbance to the soil during the uprooting process.
2. Cutting, Chopping or slashing for young plants that are too large to pull out by hand, or for plants that have woody stems. It is best used on plants that are not resprouts. In the case of resprouts (coppicing), chopping must be combined with chemical treatment of the cut stumps.
 - Use implements such as, but not limited to, pangas (slashers/machetes), handsaws, bowsaws and axes to cut plants down as low as possible.
 - Remember to wear protective clothing and keep team members at least two arm-lengths apart (see Health and safety).
 - Stack removed material into piles of 2 m high and 3 m wide.
3. Digging out AIP's: involves the use of tools like hoes, sticks, tree poppers or spades. The entire plant and root must be removed. The use of garden tools is not limited to tools not listed in this scope of work.
 - Dig around the plant, making sure the sand is loosened around the root system.

CONTROLLED DISCLOSURE

- Dig down under the roots, applying pressure, and wrench the entire plant out.
- Kicking the plant may help to dislodge it; however, care should be taken if the plant is seeding as dry seeds may be dislodged.
- Stack removed material into piles of 2 m high and 3 m wide.

Mechanical Method

Mechanical control involves the use of machinery to clear IAPs and is often the most effective for larger individual plants. Cost effectiveness, personnel competency and safety remain important considerations.

4. Felling: is appropriate where trees can be cut down and removed using chainsaws, bowsaws, brush cutters or slashers. Cut trees should be debranched. Take wind direction into account when felling large trees with chainsaws.

Only a competent chain saw operator with tree felling experience will be allowed to operate a chain saw. Always use the correct tree felling technique when tree felling.

Chemical Methods

Only herbicide products registered for the AIP species being treated must be used. Chemical methods are a good choice when the AIP's are still seedlings or young. Chemical control should not be applied when it is windy or raining.

It is important to note that herbicide can also harm many non-target species and must always be used with the greatest of care and only the targeted plants should be treated with herbicides. Wetlands require special care and only herbicide appropriate for wetlands should be used.

The correct dosage of chemical to be applied when treating AIP's. Within the chemical treatment period no AIP regrowth should appear on the treated area, if regrowth appears within the treatment period the contractor will be instructed to re-treat the regrowth at no cost to Eskom.

Cut stump treatment: Applying herbicide to cut stumps is a highly effective method for larger woody AIPs.

- Fell the target tree horizontally and as low as possible to the ground.
- Ensure a smooth cut surface to expose the cambium (outer rings where the trunk grows).
- Clear around the cut stump to expose side branches that also need to be cut and treated.
- Spray the herbicide mixture at a very low pressure on the freshly cut surface.
- Treat only the outside cambium layer for stumps with a diameter larger than 10 cm.
- Apply the herbicide mixture as soon as possible after the tree has been felled.
- When using a product that is mixed with penetrant oil, the entire stump and exposed roots must be treated.

Foliar treatment: when herbicide is applied to the leaves of the plant, usually by spraying.

- Spray herbicide with a knapsack sprayer, mist-blower or high-pressure sprayer firefighting unit, e.g. a bakkie-sakkie.
- The correct choice of nozzle is important to achieve an even spray cover.
- The best results can be expected in the active growing season (but some species are more susceptible to chemical absorption when they are sprayed in summer).

CONTROLLED DISCLOSURE

Basal bark treatment: application can only be carried out with an oil miscible product. Oil miscible products are formulated with penetrant oil, which acts as a carrier that moves the herbicide through the bark to the cambium and eventually to the roots. Young trees and shrubs with green bark can be treated while standing with no need for felling.

- Spray the herbicide onto the stem.
- Ensure wetting of the root crown, exposed roots and stem up to a height of 0,5 m.
- Low-pressure spraying or stem paint is required to minimise spillage onto the soil.
- The entire circumference of the trunk must be treated.

Spillage

Spillage must be attended to immediately and appropriately disposed of. A chemical absorbent material should be available on site to control chemical spills. Where spillage occurs in a storage facility with a hard surface, the following steps should be followed:

- An appropriate spill kit should be used to clear up the spill.
- Bag and dispose of the material using a reputable hazardous waste disposal company.

If a spill occurs at a clearing site:

- Bag the spill material in thick plastic bags and take it off-site.
- Dispose of the bagged material in the same way as for a spill in the storage facility.

Disposal

Invasive alien plant clearing produces large amounts of dead and dying plant material. An excessive amount of plant material can present a fire hazard and, if washed down rivers, can damage infrastructure and riverbanks. This plant waste needs to be responsibly disposed of.

Make use of the waste

Wood can be made available to the local community for firewood. However, care must be taken not to distribute seeds or vegetatively growing material as it could give rise to new infestations.

Burning on site: Burning the material on site presents risks that need to be managed appropriately. Burning should only be attempted by suitably (in terms of the relevant legislation) equipped and competent personnel. Material can be stacked in several ways before being burnt. The Station fire Department should be informed when burning is to take place.

Landfill: Material that cannot be used, stacked or burnt must be disposed of at a registered and approved disposal site. Plant material can take up valuable space in a landfill, so other disposal options are preferable first. When removing material, take care to remove all debris, including shoots and seeds. Disposal manifest to be submitted to the Environmental Department.

Monitoring & Reporting

- Hendrina Power Station Environmental representative will conduct weekly inspection for the works carried out to ensure that all SHE issues are adhered to.
- The Contractor and Eskom Environmental representative will do monthly inspections as part of assessment before any payment for work done can be made.
- Herbicide register must be updated as and when it is used and accurate calculations for dosages must be used.

CONTROLLED DISCLOSURE

- Ensure that all safety, health and Environmental incidents are reported within 24 hours to Eskom Environmental Officer.
- All non-conformities are reported to Eskom Environmental Officer within 24 hours.
- All chemicals (Herbicides, Diesel etc.) must have an appropriate brand-specific 16-point Safety Data Sheet.
- The herbicide register must be maintained and updated for the duration of the project.

Quarterly targets

Contractor is expected to make their site evaluation and submit eradication targets per quarter. Once the targets are accepted by Environmental Management Department, then physical work can start.

3.2 Demarcated Management Units at Hendrina Power Station

For management purposes, the site is divided up into separate management units, based on practical criteria, such as connectedness, access, size of area, degree of invasion, current activities on site, etc. A map of the location of different management units is shown in Figure 2. The size of management units is as shown in Table 1 below. A list of identified listed Invader species on site is shown on table 2.

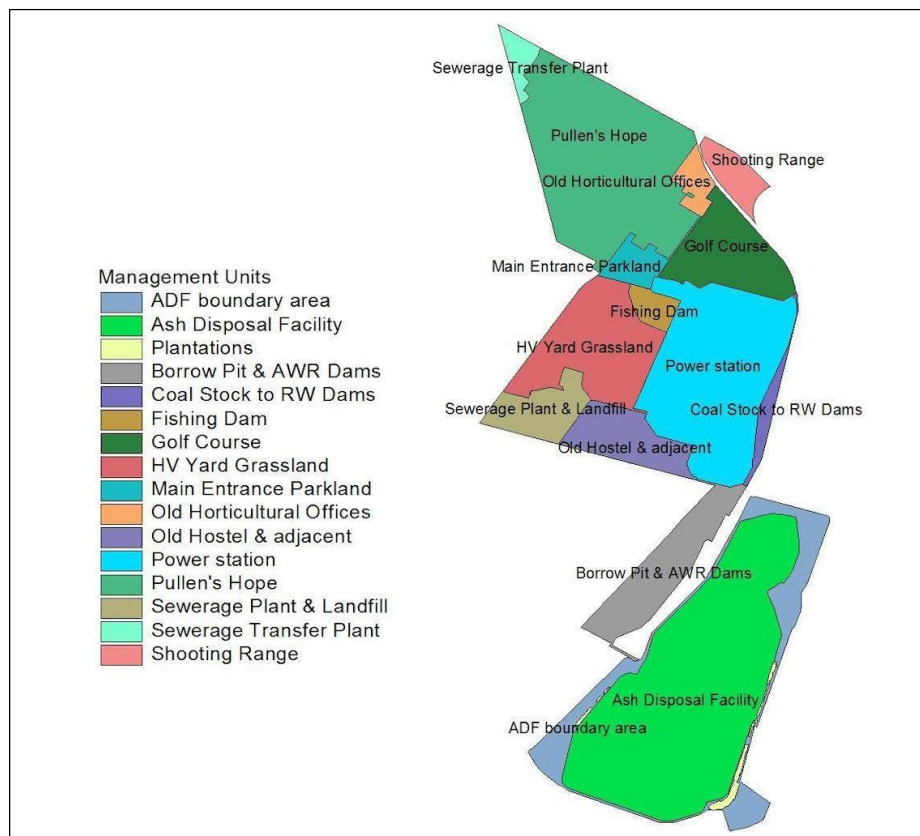


Figure 2: Management units at Hendrina Power Station.

Station Management Unit	Area (hectares)
1. Ash Disposal Facility (ADF)	252.9
2. ADF boundary area	63.4

CONTROLLED DISCLOSURE

3. Plantation woodlots	4.7
4. Borrow Pit and AWR Dams Grassland	51.9
5. Power Station Main Entrance Parkland	14.6
6. Fishing Dam	10.0
7. Golf Course	52.5
8. HV Yard Grasslands	79.0
9. Old Horticultural Offices	11.2
10. Shooting Range & adjacent areas	16.6
11. Old Hostel and surrounding areas	36.9
12. Power Station (infrastructure & lawns)	145.0
13. Pullen's Hope & other township areas	169.5
14. Sewerage Transfer Plant & BMX area	9.5
15. Coal Stock Yard to Raw Water Dams area	9.5
16. Sewerage Plant & Landfill	29.8
TOTAL	957.0

Table 1: Area in hectares of each management unit at Hendrina Power

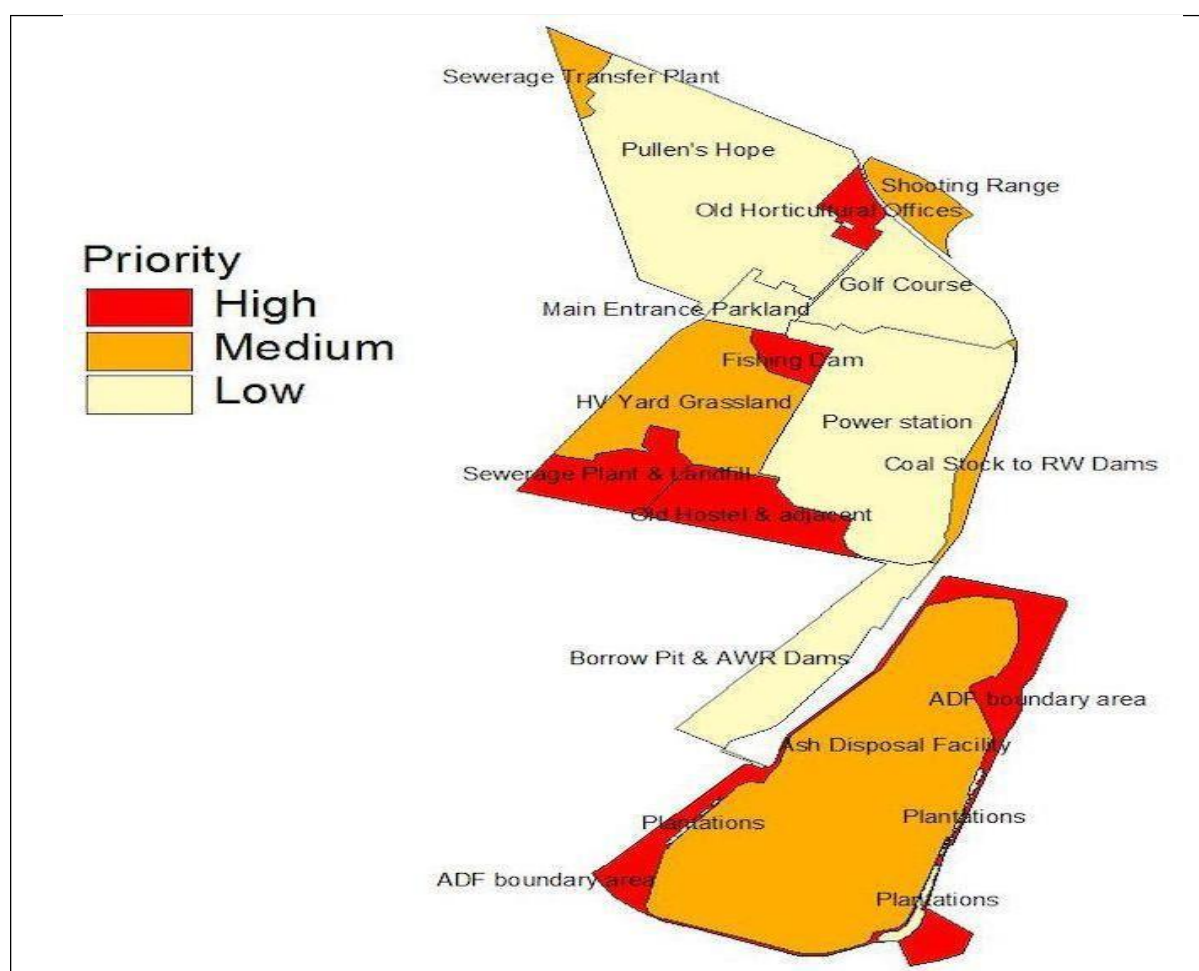


Figure 3: Priority areas for control of Invasive Alien Plants of the study area.

Management Unit	Management Unit priority for clearing (2018)
1. Ash Disposal Facility (ADF)	10

CONTROLLED DISCLOSURE

2. ADF boundary area	3
3. Plantation woodlots	11
4. Borrow Pit and AWR Dams Grassland	12
5. Power Station Main Entrance Parkland	14
6. Fishing Dam	1
7. Golf Course	13
8. HV Yard Grasslands	7
9. Old Horticultural Offices	5
10. Shooting Range & adjacent areas	8
11. Old Hostel and surrounding areas	4
12. Power Station (infrastructure & lawns)	16
13. Pullen's Hope & other township areas	15
14. Sewerage Transfer Plant & BMX area	9
15. Coal Stock to Raw Water Dams area	6
16. Sewerage Plant & Landfill	2
Legend	
High	
Medium	
Low	

Table 3: Management unit priority in terms of controlling alien invasive species.

Species name	Common name	NEMBA Category	Estimated % cover /252.9 hectares	Prioritization	Risk of invasion
<i>Acacia mearnsii</i>	Black wattle	2	2%	Very high	Very high
<i>Arundo donax</i>	Spanish reed	1b	25%	Medium	High
<i>Casuarina equisetifolia</i>	Horsetail tree	1b	15%	Medium	Medium
<i>Cestrum laevigatum</i>	Inkberry	1b	<1%	High	High
<i>Cirsium vulgare</i>	Scotch thistle	1b	<1%	High	Medium
<i>Cortaderia selloana</i>	Pampas grass	1b	15%	Very high	Very high
<i>Nasturtium officinale</i>	Watercress	2	2%	Low	Low
<i>Nicotiana glauca</i>	Wild tobacco	1b	3%	High	High
<i>Pinus patula</i>	Patula pine	2	3%	Low	Low
<i>Tamarix ramosissima</i>	Pink tamarisk	1b	15%	Medium	Medium

Table 4: Listed Invasive Species in Management Unit 1: Ash Disposal Facility (ADF).

Other exotic species occurring here that are not listed in an invasive category are as follows:

☐ *Schinus molle* (not counted),

CONTROLLED DISCLOSURE

Species name	Common name	NEMBA Category	Estimated % cover /63.4 Hectares	Prioritization	Risk of invasion
<i>Acacia mearnsii</i>	Black wattle	2	10%	Very high	Very high
<i>Acacia melanoxylon</i>	Australian blackwood	2	5 %	Very high	High
<i>Arundo donax</i>	Spanish reed	1b	20%	High	High
<i>Azolla filiculoides</i>	Red water fern	1b	1%	Medium	Low
<i>Cestrum laevigatum</i>	Inkberry	1b	1%,	High	High
<i>Cirsium vulgare</i>	Scotch thistle	1b	3%,	Medium	Low
<i>Cortaderia selloana</i>	Pampas grass	1b	25%	Very high	Very high
<i>Datura stramonium</i>	Common thorn apple	1b	1%	Medium	Medium
<i>Eucalyptus camaldulensis</i>	Red river gum	1b	10%	Medium	Medium
<i>Nasturtium officinale</i>	Watercress	2	2%	Low	Medium
<i>Pennisetum clandestinum</i>	Kikuya grass	1b	5%	Medium	Medium
<i>Pinus patula</i>	Patula pine	2	10%	High	High
<i>Tamarix ramosissima</i>	Pink tamarisk	1b	5%	High	High
<i>Xanthium strumarium</i>	Large cocklebur	Category 1b	1%	High	Medium

Table 5: Listed Invasive Species in Management Unit 2: ADF Boundary Area.

Other exotic species occurring here that are not listed in an invasive category are as follows:

- ☐ *Eucalyptus cinerea* (6 trees),
- ☐ *Eucalyptus sideroxylon* (10 trees)
- ☐ *Populus nigra* (5 trees),
- ☐ *Salix babylonica* (32 trees),
- ☐ *Schinus molle* (4 trees).

Species name	Common name	NEMBA Category	Estimated % cover /4.7 Hectares	Prioritization	Risk of invasion
<i>Acacia melanoxylon</i>	Australian blackwood	2	15%	High	High
<i>Cestrum laevigatum</i>	Inkberry	1b	5%	High	High
<i>Cirsium vulgare</i>	Scotch thistle	1b	1%	Medium	Low
<i>Cortaderia selloana</i>	Pampas grass	1b	2%	Very high	Very high
<i>Eucalyptus camaldulensis</i>	Red river gum	1b	20%	Low	Low
<i>Pinus patula</i>	Patula pine	2	10%	High	High

Table 6: Listed Invasive Species in Management Unit 3: Plantation Woodlots.

CONTROLLED DISCLOSURE

Other exotic species occurring here that are not listed in an invasive category are as follows:

□ *Eucalyptus sideroxylon* (600 tree)

□ *Populus nigra* (10 trees),

Grassland. Species name	Common name	NEMBA Category	Estimated % cover/ 51.9 Hectares	Prioritization	Risk of invasion
<i>Acacia mearnsii</i>	Black wattle	2	30%	Very high	Very high
<i>Acacia melanoxylon</i>	Australian blackwood	2	5%	High	High
<i>Arundo donax</i>	Spanish reed	1b	1%	High	High
<i>Cirsium vulgare</i>	Scotch thistle	1b	2 %	Medium	Low
<i>Cortaderia selloana</i>	Pampas grass	1b	5%	Very high	Very high
<i>Datura stramonium</i>	Common thorn apple	1b	1%	Medium	Medium
<i>Listed Invasive Species in Management Unit 5: Power Station Main Entrance Parkland. Species name</i>	Common name	NEMBA Category	Estimated % cover	Prioritization	Risk of invasion
<i>Acacia melanoxylon</i>	Australian blackwood	2	2 trees	High	High
<i>Bauhinia variegata</i>	Orchid tree	1b	1 tree	Low	Low
<i>Callistemon citrinus</i>	Lemon bottlebrush	3	1 tree	Low	Low
<i>Casuarina equisetifolia</i>	Horsetail tree	1b	1 tree	Low	Low
<i>Cestrum laevigatum</i>	Inkberry	1b	7 patches	High	High
<i>Cotoneaster franchetii</i>	Cotoneaster	1b	3 plants	Low	Low
<i>Eucalyptus camaldulensis</i>	Red river gum	1b	1 tree	Low	Low
<i>Grevillea robusta</i>	Australian silky oak	3	2 trees	Low	Low
<i>Ligustrum lucidum</i>	Glossy Privet	1b	3 bushes	Low	Low
<i>Ligustrum ovalifolium</i>	Oval-leafed Privet	1b	3 bushes	Low	Low
<i>Pinus elliotii</i>	Slash pine	1b	10 trees	Low	Low
<i>Pyracantha angustifolia</i>	Yellow firethorn	1b	1 plant	Low	Low

Table 7: Listed Invasive Species in Management Unit 4: Borrow Pit and Ash Water Return Dams
CONTROLLED DISCLOSURE

<i>Acacia melanoxylon</i>	Australian blackwood	2	2 trees	High	High
<i>Bauhinia variegata</i>	Orchid tree	1b	1 tree	Low	Low
<i>Callistemon citrinus</i>	Lemon bottlebrush	3	1 tree	Low	Low
<i>Casuarina equisetifolia</i>	Horsetail tree	1b	1 tree	Low	Low
<i>Cestrum laevigatum</i>	Inkberry	1b	7 patches	High	High
<i>Cotoneaster franchetii</i>	Cotoneaster	1b	3 plants	Low	Low
<i>Eucalyptus camaldulensis</i>	Red river gum	1b	1 tree	Low	Low
<i>Grevillea robusta</i>	Australian silky oak	3	2 trees	Low	Low
<i>Ligustrum lucidum</i>	Glossy Privet	1b	3 bushes	Low	Low
<i>Ligustrum ovalifolium</i>	Oval-leafed Privet	1b	3 bushes	Low	Low
<i>Pinus elliotii</i>	Slash pine	1b	10 trees	Low	Low
<i>Pyracantha angustifolia</i>	Yellow firethorn	1b	1 plant	Low	Low

Table 8: Listed Invasive Species in Management Unit 5: Power Station Main Entrance Parkland.

Other exotic species occurring here that are not listed in an invasive category are as follows:

- ☐ *Eucalyptus cinerea* (3 trees),
- ☐ *Eucalyptus sideroxylon* (1 tree)
- ☐ *Pennisetum clandestinum* (not listed outside protected areas or wetlands)
- ☐ *Populus nigra* (1 tree),
- ☐ *Schinus molle* (2 trees),

Species name	Common name	NEMBA Category	Estimated % cover	Prioritization	Risk of invasion
<i>Acacia dealbata</i>	Silver wattle	2	6 trees	High	High
<i>Acacia mearnsii</i>	Black wattle	2	>25 trees + 400 m ² patch	Very high	Very high
<i>Acacia melanoxylon</i>	Australian blackwood	2	31 large trees	High	High
<i>Azolla filiculoides</i>	Red water fern	1b	<1%	Medium	Low
<i>Casuarina equisetifolia</i>	Horsetail tree	1b	1 tree	Low	Low
<i>Cestrum laevigatum</i>	Inkberry	1b	<1%, 15 plants	High	High
<i>Cirsium vulgare</i>	Scotch thistle	1b	<1%, 15 plants	Medium	Low
<i>Cortaderia selloana</i>	Pampas grass	1b	<1%, 11 clumps	Very high	Very high
<i>Eucalyptus camaldulensis</i>	Red river gum	1b	1 tree	Low	Low
<i>Gleditsia triacanthos</i>	Honey locust	1b	8 clumps	Medium	Medium

CONTROLLED DISCLOSURE

<i>Ligustrum lucidum</i>	Glossy Privet	1b	2 bushes	Low	Low
<i>Pennisetum clandestinum</i>	Kikuya grass	1b	>10 m2	Medium	Medium

Table 9: Listed Invasive Species in Management Unit 6: Fishing Dam.

Other exotic species occurring here that are not listed in an invasive category are as follows:

- ☐ *Eucalyptus cinerea* (1 tree),
- ☐ *Eucalyptus sideroxylon* (1 tree)
- ☐ *Populus deltoides* (47 trees),
- ☐ *Populus nigra* (5 trees, 2 spreading!!),
- ☐ *Quercus robur* (2 trees),
- ☐ *Salix babylonica* (34 trees),
- ☐ *Schinus molle* (4 trees),
- ☐ *Tipuana tipu* (1 tree).

Species name	Common name	NEMBA Category	Estimated % cover	Prioritization	Risk of invasion
<i>Acacia melanoxylon</i>	Australian blackwood	2	5 large trees	High	High
<i>Casuarina equisetifolia</i>	Horsetail tree	1b	24 trees	Low	Low
<i>Cestrum laevigatum</i>	Inkberry	1b	4 clumps	High	High
<i>Cotoneaster franchetii</i>	Cotoneaster	1b	3 plants	Low	Low
<i>Datura stramonium</i>	Common thorn apple	1b	2 plants	Medium	Medium
<i>Eucalyptus camaldulensis</i>	Red river gum	1b / 2	95 trees	Low	Low
<i>Ligustrum lucidum</i>	Glossy Privet	1b	23 bushes	Low	Low
<i>Melia azeradach</i>	Syringa	(1b), 3 in urban areas	100 trees	Medium	High
<i>Pinus elliotii</i>	Slash pine	1b	130 trees	Medium	High
<i>Pinus patula</i>	Patula pine	2	4 trees	Medium	High

Table 10: Listed Invasive Species in Management Unit 7: Golf Course.

Other exotic species occurring here that are not listed in an invasive category are as follows:

- ☐ *Eucalyptus cinerea* (40 trees),
- ☐ *Eucalyptus sideroxylon* (5 trees)
- ☐ *Pennisetum clandestinum* (not listed outside protected areas or wetlands)
- ☐ *Populus deltoides* (47 trees),
- ☐ *Populus nigra* (8 trees),
- ☐ *Salix babylonica* (6 trees),

CONTROLLED DISCLOSURE

□ *Schinus molle* (3 trees).

Species name	Common name	NEMBA Category	Estimated % cover	Prioritization	Risk of invasion
<i>Acacia mearnsii</i>	Black wattle	2	9 trees	Very high	Very high
<i>Cirsium vulgare</i>	Scotch thistle	1b	5 plants	Medium	Low
<i>Eucalyptus camaldulensis</i>	Red river gum	1b	0.1 ha	Low	Low
<i>Gleditsia triacanthos</i>	Honey locust	1b	8 clumps	High	High
<i>Ligustrum lucidum</i>	Glossy Privet	1b	2 bushes	Low	Low
<i>Pennisetum clandestinum</i>	Kikuya grass	1b	>10 m2	Medium	Medium
<i>Pinus elliotii</i>	Slash pine	1b	1 tree	Medium	High

Table 11: Listed Invasive Species in Management Unit 8: High Voltage (HV) Yard Grasslands.

Other exotic species occurring here that are not listed in an invasive category are as follows:

- *Eucalyptus sideroxylon* (50 trees, including juveniles)
- *Salix babylonica* (18 trees).

Species name	Common name	NEMBA Category	Estimated % cover	Prioritization	Risk of invasion
<i>Araujia sericifera</i>	Moth catcher	1b	1 creeper	Medium	Medium
<i>Cestrum laevigatum</i>	Inkberry	1b	15 clumps, 0.5 ha	High	High
<i>Eucalyptus camaldulensis</i>	Red river gum	1b, not listed in urban areas for large trees	2 trees	Low	Low
<i>Melia azeradach</i>	Syringa	(1b), 3 in urban areas	21 trees	Medium	High

Table 12: Listed Invasive Species in Management Unit 9: Old Horticultural Offices.

Other exotic species occurring here that are not listed in an invasive category are as follows:

- *Eucalyptus cinerea* (2 trees),
- *Eucalyptus sideroxylon* (1 tree),
- *Pennisetum clandestinum*,
- *Populus deltoides* (20 trees),
- *Populus nigra* (1 tree),
- *Salix babylonica* (1 tree).

CONTROLLED DISCLOSURE

Species name	Common name	NEMBA Category	Estimated % cover	Prioritization	Risk of invasion
<i>Cestrum laevigatum</i>	Inkberry	1b	3 plants	High	High
<i>Datura stramonium</i>	Common thorn apple	1b	1 plant	Medium	Medium
<i>Melia azeradach</i>	Syringa	(1b), 3 in urban areas	54 trees	Medium	High
<i>Pinus elliotii</i>	Slash pine	1b	10 trees	Medium	High

Table 13: Listed Invasive Species in Management Unit 10: Shooting Range and Adjacent Areas.

Other exotic species occurring here that are not listed in an invasive category are as follows:

□ *Pennisetum clandestinum*.

Species name	Common name	NEMBA Category	Estimated % cover	Prioritization	Risk of invasion
<i>Acacia mearnsii</i>	Black wattle	2	25 trees	Very high	Very high
<i>Acacia melanoxylon</i>	Australian blackwood	2	3 trees	High	High
<i>Casuarina equisetifolia</i>	Horsetail tree	1b	70 trees	Low	Low
<i>Cirsium vulgare</i>	Scotch thistle	1b	2 plants	Medium	Low
<i>Cortaderia selloana</i>	Pampas grass	1b	3 clumps	Very high	Very high
<i>Datura ferox</i>	Common thorn apple	1b	10 plant	Medium	Medium
<i>Datura stramonium</i>	Common thorn apple	1b	300 plants	Medium	Medium
<i>Eucalyptus camaldulensis</i>	Red river gum	1b, not listed in urban areas for large trees	4 trees	Low	Low
<i>Grevillea robusta</i>	Australian silky oak	3	2 trees	Low	Low
<i>Ligustrum lucidum</i>	Glossy Privet	1b	4 bushes	Low	Low
<i>Melia azeradach</i>	Syringa	(1b), 3 in urban areas	14 trees + 3 juveniles	Medium	High
<i>Pinus elliotii</i>	Slash pine	1b	20 trees	Medium	High
<i>Pyracantha angustifolia</i>	Yellow fire-thron	1b	1 bush	Low	Low

Table 14: Listed Invasive Species in Management Unit 11: Old Hostel and Surrounding Areas.

Other exotic species occurring here that are not listed in an invasive category are as follows:

□ *Eucalyptus cinerea* (1 tree),

□ *Eucalyptus sideroxylon* (1 tree)

CONTROLLED DISCLOSURE

- ☐ *Pennisetum clandestinum*
- ☐ *Populus deltoides* (1 trees),
- ☐ *Populus nigra* (2 trees),
- ☐ *Schinus molle* (1 tree).

Species name	Common name	NEMBA Category	Estimated % cover	Prioritization	Risk of invasion
<i>Acacia mearnsii</i>	Black wattle	2	5 trees	Very high	Very high
<i>Acacia melanoxylon</i>	Australian blackwood	2	13 trees	High	High
<i>Cestrum laevigatum</i>	Inkberry	1b	4 patches	High	High
<i>Cortaderia selloana</i>	Pampas grass	1b	1 clumps	Very high	Very high
<i>Eucalyptus camaldulensis</i>	Red river gum	1b, not listed in urban areas for large trees	5 trees	Low	Low
<i>Grevillea robusta</i>	Australian silky oak	3	10 trees	Low	Low
<i>Ligustrum lucidum</i>	Glossy Privet	1b	7 bushes	Low	Low
<i>Nerium oleander</i>	Oleander	1b	2 bushes	Low	Low
<i>Tamarix ramosissima</i>	Pink tamarisk	1b	2 patches	Medium	Medium

Table 15: Listed Invasive Species in Management Unit 12: Power Station.

Other exotic species occurring here that are not listed in an invasive category are as follows:

- ☐ *Eucalyptus cinerea* (1 tree),
- ☐ *Pennisetum clandestinum*
- ☐ *Salix babylonica* (4 trees),
- ☐ *Schinus molle* (8 trees),
- ☐ *Tipuana tipu* (2 trees).

Species name	Common name	NEMBA Category	Estimated % cover	Prioritization	Risk of invasion
<i>Acacia mearnsii</i>	Black wattle	2	9 trees	Very high	Very high
<i>Acacia melanoxylon</i>	Australian blackwood	2	7 trees	High	High
<i>Cestrum laevigatum</i>	Inkberry	1b	8 clumps	High	High
<i>Casuarina equisetifolia</i>	Horsetail tree	1b	4 trees	Low	Low
<i>Eucalyptus camaldulensis</i>	Red river gum	1b, not listed in urban	5 trees	Low	Low

CONTROLLED DISCLOSURE

		areas for large trees			
<i>Grevillea robusta</i>	Australian silky oak	3	1 tree	Low	Low
<i>Ligustrum lucidum</i>	Glossy Privet	1b	7 bushes	Low	Low
<i>Melia azadirach</i>	Syringa	(1b), 3 in urban areas	46 trees	Medium	Medium
<i>Opuntia ficus-indica</i>	Sweet prickly pear	1b	1 plant	Medium	Medium
<i>Pinus elliotii</i>	Slash pine	1b	55 trees	Medium	High
<i>Pinus patula</i>	Patula pine	2	26 trees	Medium	High

Table 16: Listed Invasive Species in Management Unit 13: Pullen's Hope.

Other exotic species occurring here that are not listed in an invasive category are as follows:

- ☐ *Eucalyptus ficifolia* (2 trees),
- ☐ *Pennisetum clandestinum*,
- ☐ *Populus nigra* (10 trees),
- ☐ *Salix babylonica* (8 trees),

Species name	Common name	NEMBA Category	Estimated % cover	Prioritization	Risk of invasion
<i>Acacia mearnsii</i>	Black wattle	2	1 tree	Very high	Very high
<i>Cirsium vulgare</i>	Scotch thistle	1b	20 plants	Medium	Low
<i>Datura stramonium</i>	Common thorn apple	1b	13 plants	Medium	Medium
<i>Eucalyptus camaldulensis</i>	Red river gum	1b, not listed in urban areas for large trees	24 trees	Low	Low
<i>Pinus patula</i>	Patula pine	2	8 trees	Medium	High

Table 17: Listed Invasive Species in Management Unit 14: Sewerage Transfer Plant and BMX Area.

Other exotic species occurring here that are not listed in an invasive category are as follows:

- ☐ *Eucalyptus sideroxylon* (90 trees)

Species name	Common name	NEMBA Category	Estimated % cover	Prioritization	Risk of invasion
<i>Acacia mearnsii</i>	Black wattle	2	17 trees	Very high	Very high
<i>Arundo donax</i>	Spanish reed	1b	Approx. 3 ha	High	High
<i>Cortaderia selloana</i>	Pampas grass	1b	200 clumps	Very high	Very high

CONTROLLED DISCLOSURE

<i>Datura stramonium</i>	Common thorn apple	1b	5 plants	Medium	Medium
<i>Tamarix ramosissima</i>	Pink tamarisk	1b	250 plants	Medium	Medium

Table 18: Listed Invasive Species in Management Unit 15: Coal Stock to Raw Water Dams Area.

Other exotic species occurring here that are not listed in an invasive category are as follows:

- ☐ *Populus deltoides* (2 trees),

Species name	Common name	NEMBA Category	Estimated % cover	Prioritization	Risk of invasion
<i>Cirsium vulgare</i>	Scotch thistle	1b	>2 plants	Medium	Low
<i>Cortaderia selloana</i>	Pampas grass	1b	5 clumps	Very high	Very high
<i>Eucalyptus camaldulensis</i>	Red river gum	1b	Not counted, 4.5 ha	High	Medium
<i>Grevillea robusta</i>	Australian silky oak	3	1 tree	Low	Low
<i>Melia azeradach</i>	Syringa	1b, 3 in urban areas	1 tree	Medium	Medium
<i>Pennisetum clandestinum</i>	Kikuya grass	1b	>10 m2	Medium	Medium
<i>Pinus elliotii</i>	Slash pine	1b	6 trees	Medium	High

Table 19: Listed Invasive Species in Management Unit 16: Sewerage Plant and Landfill.

Other exotic species occurring here that are not listed in an invasive category are as follows:

- ☐ *Eucalyptus sideroxylon* (1 tree)
- ☐ *Salix babylonica* (10 trees).

3.3 Deliverables

3.3.1 Environmental Management Activities

Alien Invader Species services shall be done as per the Scope of Work. Changes to the SOW will be made as and when required and as per agreement between the Service Manager and the Contractor. Submit weekly progress reports, monthly waste manifests, update the eradication plan monthly.

Precautions and Penalties

- (a) No windbreaks, vegetation, or indigenous trees that are intended to remain may be damaged, poisoned or cleared. Any damage to non-invasive or indigenous vegetation or trees, which have not been specifically marked for clearing, will result in penalties as defined in NEMA and associated legislation to the Contractor.
- (b) All aliens to be cleared up to the site boundaries.

CONTROLLED DISCLOSURE

(c) Contractor to bag and remove all litter within their working areas. Any litter must be removed from site by the Contractor daily to the general landfill site that is owned by Eskom. Waybills must be submitted for all refuse that is disposed of off-site.

(d) The Contractor is to ensure that the supervisors have the knowledge and experience to identify indigenous vegetation.

(e) It will be the responsibility of the Contractor to ensure that he or she is fully informed of the extent of all alien vegetation to be cleared.

3.3.2 Service and Standards

The Contractor shall perform all services necessary to ensure that the work is carried out in accordance with the agreed standards and procedures. The integrity of the data provided shall be continuously checked and confirmed against history and applicable standards.

3.3.3 Equipment types and techniques

Wood Shredder

X3 Chains saw

X6 Brush cutters (nylon guard, blades)

X2 Blowers

General Garden Tools

Skyjack (Cherry picker) as and when required

X2 4x4 Bakkie with a Trailer

X 3 Extended Pole Pruner

CONTROLLED DISCLOSURE

4. SHEQR requirements

- a) The contractor is responsible for ensuring compliance to Eskom Holdings SOC Limited and Hendrina Power Station specific policies, procedures, and standards.
- b) The Contractor shall be accountable for the compliance with the Occupational Health, Safety, Environmental, Risk, and Quality requirements of Hendrina Power station and Eskom Holdings SOC Limited.
- c) The contractor and the employer shall carry out risk assessments to establish what hazards to the health and safety of persons are attached to any work which is to be performed.

Personal Protective Equipment (PPE)

The Contractor will provide its staff with adequate and appropriate PPE and clothing and will ensure that these are worn while at Hendrina Power Station. Enough PPE must be supplied so that employees can have one clean set of PPE, thus a minimum of 2 full sets of branded PPE.

At a minimum, PPE should include the following:

Safety shoes X1 annually or more as and when required

Overalls X2 annually

Winter Jackets X1 annually

Specialised PPE for services that requires such

Gloves

Respiratory masks

Goggles

Hard hat with ear protection

Not limited to other Alien Species handling PPE NOT mentioned in this document

5. Records to be kept.

Register of all chemicals and their SDS's

Training records

Monthly Progress Reports

6. Notes / Forms / Appendices / Annexures

N/A

7. Acceptance

This document has been seen and accepted by:

CONTROLLED DISCLOSURE

Name	Designation

8. Revisions

Date	Rev.	Compiler	Remarks
March 2026	0		Initial Scope of Work Required for the Implementation of the Alien Invader Species Eradication Plan

9. Development Team

The following people were involved in the development of this document:

- Environmental Department
- Horticulture Officer

10. Acknowledgements

- Environmental Department and Horticulture Officer for reviewing and comments.

CONTROLLED DISCLOSURE