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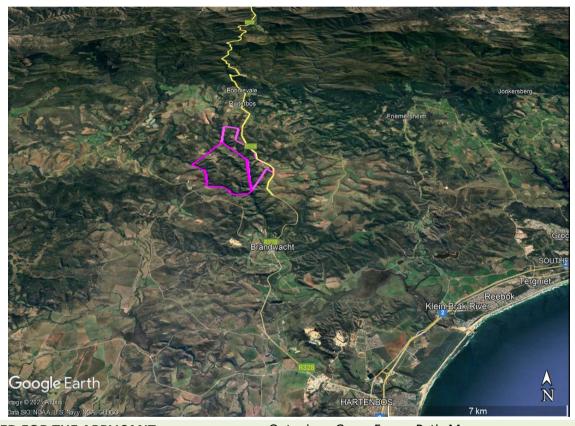
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## Appendix I – DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT (Draft EMPr)

In terms of the **National Environmental Management Act** (Act No. 107 of 1998, as amended) & 2014 Environmental Impact Regulations (as amended, 2017) for:

# ACTIVITIES CARRIED OUT AND CONTINUED AND FURTHERANCE OF ACTIVITIES ON FARM PORTIONS 420 AND 373, OUTENIQUA GAME FARM, MOSSEL BAY MUNICIPALITY, WESTERN CAPE

24G Consultation: 14/2/4/1/D6/28/0004/20



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## **ENVIRONMENTAL MANAGEMENT PROGRAMME REQUIREMENTS:**

Appendix 4 of Regulation 982 of the 2014 EIA Regulations (as amended, 2017) published in terms of the NEMA, contains the required contents of an Environmental Management Programme (EMP). The table below serves as a summary of how these requirements were incorporated into this EMPR:

An EMPr must comply with section 24N of the Act and include:-

(a)	Details of —  (i) The EAP who prepared the EMPr; and  (ii) The expertise of the EAP to prepare an EMPr, including a curriculum Vitae;	This EMPr was prepared by Claire De Jongh. of Eco Route. Please see attached CV of the EAP (Annexure 1).
(b)	A detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description;	Section 5 - ENVIRONMENTAL MANAGEMENT PROGRAMME
(c)	a map at an appropriate scale which superimposes the proposed activity, it associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers;	Figure 3 Figure 1
(d)	A description of the impact management outcomes, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including —  (i) planning and design;  (ii) pre-construction activities;  (iii) construction activities;  (iv) rehabilitation of the environment after construction and where applicable post closure; and  (v) where relevant, operation activities;	Appendix J – Impact assessment Report
(f)	a description of proposed impact management actions, identifying the manner in which the impact management outcomes contemplated in paragraph (d) will be achieved, and must, where applicable, include actions to –  (i) avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation;  (ii) comply with any prescribed environmental management standards or practises;  (iii) comply with any applicable provisions of the Act regarding closure, where applicable; and  (iv) comply with any provisions of the Act regarding financial provision for rehabilitation, where applicable;	Section 5 - ENVIRONMENTAL MANAGEMENT PROGRAMME
(g)	the method of monitoring the implementation of the impact management actions contemplated in paragraph (f);	Section 5 - ENVIRONMENTAL MANAGEMENT PROGRAMME Section 6 – Monitoring Plan Section 7 - COMPLIANCE WITH THE EMPr
(h)	the frequency of monitoring the implementation of the impact management actions contemplated in paragraph (f);	Section 6 – Monitoring Plan Section 7 - COMPLIANCE WITH THE EMPr
(i)	an indication of the persons who will be responsible for the implementation of the impact management actions;	Section 6 of draft EMPr
(j)	the time periods within which the impact management actions contemplated in paragraph (f) must be implemented;	Section 5 - ENVIRONMENTAL MANAGEMENT PROGRAMME Section 6 - Monitoring Plan Section 7 - COMPLIANCE WITH THE EMPR

(k)	the mechanism for monitoring compliance with the impact management actions contemplated in paragraph (f);	Section 6 – Monitoring Plan Section 7 - COMPLIANCE WITH THE EMPr
(1)	a program for reporting on compliance, taking into account the requirements as prescribed by Regulations;	Section 4 - REPORTING PROCEDURES Section 7 - COMPLIANCE WITH THE EMPr
(m) (i) (ii)	an environmental awareness plan describing the manner in which — the applicant intends to inform his or her employees of any environmental risk which may result from their work; and risks must be dealt with in order to avoid pollution or	Section 7 - COMPLIANCE WITH THE EMPR Section 10 DRAFT STAFF / RESIDENT CONDUCT CONTROL AND INFORMATION SHEET
(n)	the degradation of the environment; and any specific information that may be required by the competent authority.	Application form, Appendix H, Appendix B, Draft EMPr and Appendix J – Impact Assessment

## **Glossary of Terms**

AIS	Alien Invasive Species
BOGMA	Breede-Olifants Catchment Management Agency - Catchment Management Agency
	established to manage water resources in the Breede-Olifants region. BOGMA operates
	under the oversight and regulatory role of the DWS.
СВА	CBA Critical Biodiversity Area – Areas in a natural condition that are required to meet
	biodiversity targets, for species, ecosystems or ecological processes and infrastructure.
DFFE	Department Forestry Fisheries and Environment— the national authority for sustainable
	environmental management and integrated development planning.
DEADP	Department of Environmental Affairs and Development Planning – the provincial
	authority for sustainable environmental management and integrated development
	planning.
DWS	<b>Department of Water and sanitation</b> – responsible for issuing of Water Use License
EAP	<b>Environmental Assessment Practitioner</b> – An EAP and a specialist, appointed in terms of
	regulation 12(1) or 12(2) must –
	(a) be independent.
	(b) Have expertise in conducting environmental impact assessments or
	undertaking specialist work as required, including knowledge of the
	Act, these regulations and any guidelines that have relevance to the
	proposed activity.
	(c) Ensure compliance with these Regulations
	(d) Perform the work relating to the application in an objective manner,
	even if this results in views and findings that are not favourable to
	the application.
	(e) Take into account, to the extent possible, the matters referred to in
	regulation 18 when preparing the application and any report, plan or
	document relating to the application; and
	(f) Disclose to the proponent or applicant, registered and affected
	parties and the competent authority all material information in the
	possession of the EAP and, where applicable, the specialist, that
	reasonably has or may have the potential of influencing –
	i. Any decision to be taken with respect to the application by
	the competent authority in terms of these regulations; or
	ii. The objectivity of any report, plan or document to be
	prepared by the EAP or specialist, in terms of these
	Regulations for submission to the competent authority;
	unless access to that information is protected by law, in
	which case it must be indicated that such protected
	information exists and is only provided to the competent
	authority.
	(2) In the event where the EAP or specialist does not comply with sub
	regulation (1)(a), the proponent or applicant must, prior to conducting
	public participation as contemplated in chapter 5 of these regulations,
	appoint another EAP or specialist to externally review all work
	undertaken by the EAP or specialist, at the applicants cost.
	(3) An EAP or specialist appointed to externally review the work of an EAP
	or specialist as contemplated in sub regulation (2), must comply with sub
F60/F60	regulation (1).
ECO/ESO	<b>Environmental Control Officer</b> – A site agent who needs to ensure that all environmental
	authorisation and conditions are adhered to during the construction phase of the project
EMPr	Environmental Management Programme – can be defined as "an environmental
	management tool used to ensure that undue or reasonably avoidable adverse impacts of
	the construction, operation and decommissioning of a project are prevented; and that
	the positive benefits of the projects are enhanced".

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ESA	Ecological Support Area – Areas that are not essential for meeting biodiversity targets,
	but that play an important role in supporting the functioning of Pas or CBAs, and are
	often vital for delivering ecosystem services.
EMPr	Environmental Management Plan Report – means a management plan for the activities
	legally binding if environmental authorisation is issued
NEMA	National Environmental Management Act (Act 107 of 1998) as amended 2017 –
	national environmental legislation that provides principles for decision-making on
	matters that affect the environment.
PA	Protected Area - A protected area is an area of land or sea that is formally protected by
	law and managed mainly for biodiversity conservation. Protected areas recognised in the
	National Environmental Management: Protected Areas Act (Act 57 of 2003) (hereafter
	referred to as the Protected Areas Act) are considered formal protected areas in the
	NPAES. This is a narrower definition of protected areas than the International Union for
	Conservation of Nature (IUCN) definition.1 The NPAES distinguishes between land-based
	protected areas, which may protect both terrestrial and freshwater biodiversity features,
	and marine protected areas.

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#### 1. INTRODUCTION

In accordance with the Integrated Environmental Management Guidelines published by the Department of Forestry, Fisheries, and the Environment (DFFE) in 1992, the purpose of an Environmental Management Programme (EMPr) is "to describe how negative environmental impacts will be managed, rehabilitated or monitored and how positive impacts will be maximised".

Section 28 of NEMA (National Environmental Management Act, Act 107 of 1998) states that:

Duty of care and remediation of environmental damage -

"(1) Every person who causes, has caused, or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot be reasonably avoided or stopped, to minimise and rectify such pollution or degradation of the environment"

This draft EMPr must be read in conjunction with the S24G application form and all related appendices dated April 2025; the full impact assessment is included as Appendix M which must be read by all parties. All recommendations, relevant conditions and mitigation measures provided in these documents have been included in the EMPr and must be adhered to.

This EMPr must form an integral part of the contract documents, as it outlines the methodology & duties required so that the project objectives can be achieved in an environmentally sustainable manner; with particular reference to the prevention and mitigation of environmental impacts caused by planning, construction and operational phases and activities associated with this project.

These requirements will have a financial impact on the project's planning, design, construction and operational costings.

This EMPr is a dynamic document that may require updating during the project phases in response to new and changing circumstances to mitigate environmental impacts.

Relevant changes and updated EMPr must be submitted to the DEADP for approval.

## 1.2 Purpose of the EMPr

The purpose of this EMPr is to ensure that the negative environmental impacts of the proposed and existing activities are managed, mitigated and kept to a minimum during the planning, construction and operational phases of the proposed development. The EMPr focuses on providing practical measures to avoiding negative environmental impacts and enhance positive environmental impacts where possible.

Once the EMPr is approved by DEA&DP it is seen as a legal binding document on the following affected parties:

- 1 Project Applicant.
- 2 Project planning team including engineers, landscapers, architects
- 3 All contractors and subcontractors
- 4 Operational management team (including staff and maintenance teams)

Copies of this EMPr must be kept on site and all senior personnel are expected to familiarise themselves with the content of this EMPr.

Method statements compiled by contractors must be aligned to relevant conditions in the EMPr and any conditions of the EA (if attained). (Planning and construction Phase)

Operational management must be aligned with relevant conditions in the EMPr and any conditions of the EA (if attained). (Planning and operational Phase)

It is suggested that the EMPr be reviewed on a 5 yearly basis if required. Should any amendments need to be made during operational phase, written authorisation should be obtained from DEA&DP.

## 1.2 The Polluter-Pays Principle

This principle provides for "the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimizing further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment."

#### 2. PROJECT DETAILS

The project details are provided in the S24G application and accompanying Impact Assessment Report (Appendix M) and is not repeated here. A recommended SDP, 2025 (appendix B8) has been developed following the assessment.

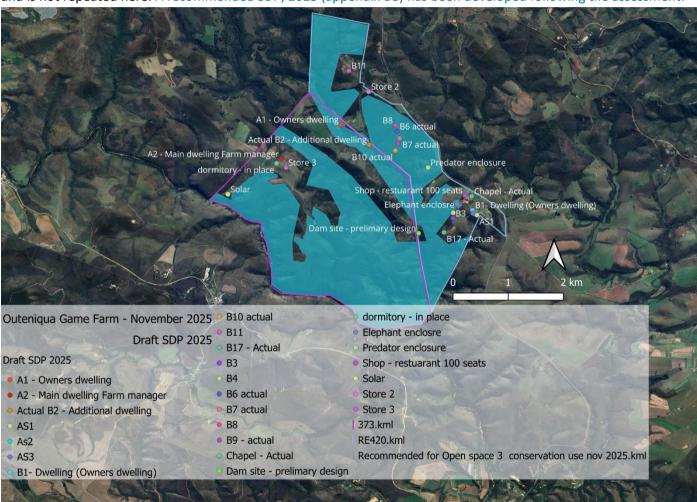


Figure 1: Recommended SDP showing structures on farm portions and recommended open space 3 area

The following activities included in Listing Notices (LN) 1, 2 and 3 of the 2014 Environmental Impact Assessment (EIA) Regulations (as amended, 2071) published in terms of National Environmental Management Act (Act 107 of 1998) (NEMA) have been assessed:

- Development within / within 32 meters of watercourse (LN1, activity 19)
- Development of facilities or infrastructure for the storage of water, including dams and reservoirs (LN3 activity 2; 14, 23; LN2 activity 16; LN 1, activity 13)

- Clearance of indigenous vegetation (LN3, activity 12; LN 2 activity 15; LN 1 activity 27))
- Development of roads (LN3 activity 4, Ln 2 activity 27)
- Rezoning of more than 1 ha (LN2; activity 28)

The main impacts associated with the activities include the following:

- Loss of indigenous vegetation
- Fire risk
- Susceptibility of some areas to erosion
- Impact on land capability (past grazing and current / proposed activities)
- Invasion by exotic and alien invasive species and ongoing removal
- Impact on surface water flows
- Impact on aquatic ecosystem and associated biodiversity
- Impact on socio-economic conditions as a result of employment opportunities
- Impact on socio-economic conditions as a result of agricultural activities

The EMPr contains all the mitigation measures to prevent / reduce negative environmental impacts and enhance positive impacts.

## 3. LEGISLATIVE REQUIREMENTS

## 3.1 Signing of the EMPr

The acknowledgement form at the back of the approved EMPr is to be signed by the holder of the Environmental Authorisation (the Applicant), the operational managers, any contractors / subcontractors; acknowledging that all parties are familiar with the requirements of the EMPr. All employees, especially the machine and equipment operators, are to be made aware of the conditions as contained in the EMPr as well as the contractual conditions relating to the environment as contained in the contract document.

## 3.2 Legislation

Of importance are all national, provincial and municipal by-laws and regulations. Statutes are amended periodically and it is the Applicant's responsibility to identify legislation relevant to the proposed activity.

#### 3.3. Project Responsibilities

Responsibility for the implementation of the EMPr lies with the Applicant who must retain the services of a suitably experienced Environmental Assessment Practioner (EA) and / or Environmental control Officer (as relevant to activity) who will monitor any construction and operational activities as required.

The project Applicant will be responsible for the following:

- Adhering to the approved EMPr.
- Ensure that all employed operational managers, staff and any appointed contractors, architects, engineers
   (as applicable) are aware of and understand the conditions of the EMPr.
- Has the right to remove any person or personnel from site if in contravention with the EMPr.
- Ensure that all contracts include the authorised EMPr.
- Appoint an experienced Environmental Assessment Practioner (EA) and / or Environmental control Officer
   and / or specialist (as required and relevant to activity / monitoring requirement)

 The project Applicant (holder of the Environmental Authorisation of the EMPr) must notify the competent authority of the commencement of construction / maintenance activities 14 days prior to such commencement taking place.

Construction ECO's responsibilities must include, inter alia:

- Secure the protection and rehabilitation of the environment.
- Guide, advise and consult the relevant authority on environmental issues during construction.
- Guide, advise and consult any sub-contractors, suppliers etc. who will be involved in this project.
- Revise the EMPr as required and inform the relevant parties of the changes.
- Ensure that the EMPr has been accepted and understood as a contractually binding document on all parties involved with this project.
- Ensure staff operating equipment are adequately trained, certified and sensitised to any potential hazards / risks associated with their tasks.
- Educate staff as to the need to refrain from indiscriminate waste disposal and/or pollution of local soil and water resources, ensure that they (the staff) have received the necessary safety training, and are aware of the importance of a "clean-site policy".
- Educate staff as to the need to refrain from disturbance to all fauna and flora on site with exception of those activities included in the EMP and relate to fire management and alien invasive species.
- The management guidelines contained in this document must form part of the contractual agreements between the Applicant, Contractor and the ECO.

EAP / specialist responsibilities must include, inter alia:

Carrying out monitoring and accompanying report as required

The Engineer/s and / or architect and / or contractors are responsible for the design and construction of the predator and elephant enclosures, dam, crossings at watercourses.

The operational management team is responsible for the agricultural activities, game farming activities, and associated rehabilitation, AIS and revegetation activities, road upgrades or the maintenance of dwellings, structures, enclosures, reservoirs, dams, crossings and roads.

The responsibilities indicated here are also relevant to Sub-Contractors. The responsibilities of the construction and operational management teams include but are not limited to the following:

- Adhere with the conditions and recommendations of the EMPr.
- Prevent actions that may cause harm to the environment.
- Be responsible for any remedial activities in response to an environmental incident within their scope of influence.
- Ensure compliance of all site personnel and / or visitors to the EMPr

All fines for noncompliance of EMPr to be predetermined by EAP and Project Applicant, this needs to be included in any method statements required for authorised construction activities taking place on the farm portions.

#### 4. REPORTING PROCEDURES

#### 4.1 Documentation

The following documentation must be kept on site in order to record compliance with the EMPr: An Environmental File which includes:

- Copy of the EMPr;
- Copy of the EA;
- Copy of all other licences/permits;
- Construction Method Statements as required
- Non-conformance Reports;
- Environmental register, which shall include:
  - Communications Register including records of complaints, minutes and attendance registers of all environmental meetings;
  - Monitoring Results including environmental monitoring reports, register of audits, nonconformance reports; and
  - Incident book including copies of notification of Emergencies and Incidents, this must be accompanied by a photographic record.
- Waste Documentation such as, but not necessarily limited to: Waste Manifest Documents;
- Material Safety Data Sheets (MSDSs) for any hazardous substances; and
- Written Corrective Action Instructions.

Reporting to DEADP – monthly during construction; annual during operations Reporting to DWS – bi-annually (ever y 6 months) during operations

## 4.2. Environmental Register

The Applicant will put in place an Environmental Register and will ensure that the following information is recorded for all complaints / incidents:

- Nature of complaint / incident.
- Causes of complaint / incident.
- Party/parties responsible for causing complaint / incident.
- Immediate actions undertaken to stop / reduce / contain the causes of the complaint / incident.
- Additional corrective or remedial action taken and/or to be taken to address and to prevent reoccurrence
  of the complaint / incident.
- Timeframes and the parties responsible for the implementation of the corrective or remedial actions.
- Procedures to be undertaken and/or penalties to be applied if corrective or remedial actions are not implemented.
- Copies of all correspondence received regarding complaints/incidents.

## 4.3. Non-Conformance Report

A Non-Conformance Report (NCR) will be issued to the Applicant as a final step towards rectifying a failure in complying with a requirement of the EMPr. This will be issued by the ECO to the Applicant in writing. Preceding the issuing of a NCR, the Applicant must be given an opportunity to rectify the issue.

Should the ECO assess an incident or issue and find it to be significant (e.g. non-repairable damage to the environment), it will be reported to the relevant authorities and immediately escalated to the level of a NCR. The following information should be recorded in the NCR:

- Details of non-conformance:
- Any plant or equipment involved;
- Any chemicals or hazardous substances involved;
- Work procedures not followed;
- Any other physical aspects;
- Nature of the risk;
- Actions agreed to by all parties following consultation to adequately address the non-conformance in terms of specific control measures and should take the hierarchy of controls into account;
- Agreed timeframe by which the actions documented in the NCR must be carried out; and
- ECO should verify that the agreed actions have taken place by the agreed completion date, when completed satisfactorily; the ECO and Applicant should sign the Close-Out portion of the Non-Conformance Form and file it with the contract documentation.

## 4.4. Emergency Response

The Applicants environmental emergency procedures must ensure appropriate responses to unexpected / accidental actions / incidents that could cause environmental impacts.

The Environmental Emergency Response Plan is separate to the Health and Safety Plan as it is aimed at responding specifically to environmental incidents and must ensure and include the following:

- Employees shall be adequately trained in terms of incidents and emergency situations;
- Details of the organisation (i.e. manpower) and responsibilities, accountability and liability of personnel;
- A list of key personnel and contact numbers;
- Details of emergency services (e.g. the fire department / on-site fire detail, spill clean-up services) shall be listed;
- Internal and external communication plans, including prescribed reporting procedures;
- Actions to be taken in the event of different types of emergencies;
- Incident recording, progress reporting and remediation measures to be implemented; and
- Information on any hazardous materials, including the potential impact associated with each, and measures to be taken in the event of accidental release.

#### 5. ENVIRONMENTAL MANAGEMENT PROGRAMME

It is imperative that mitigation measures are strictly adhered to and that all measures are taken wherever possible to minimize negative impacts and enhance positive impacts on the environment.

#### 1. PLANNING AND DESIGN

The existing and proposed activities taking place on OGF requires a number of approvals to be in place prior to the start of construction of new activities.

It was proposed to increase the irrigated agricultural area on the farm by approximately 200 ha. However, following the assessment, the applicant would like to authorise the current agricultural area (60 ha) with an expansion of 20 ha on previously disturbed agricultural (dry cattle grazing) areas. Only 60 ha will be irrigated; the remaining 20 ha will be for crop rotational purposes.

A dam is required to allow for a secure supply of water for the game farming and agricultural activities. A maximum capacity of 150 000m3 and a maximum dam wall heigh of 12 meter (including 2 meters freeboard) has been assessed.

The concept dam design provided must be revised to include the following:

- A low-level outlet pipe fitted with a control valve is recommended to be incorporated into the dam
  wall to enable controlled release of baseflows in accordance with the Ecological Water
  Requirements (EWR). Alternatively, the design should incorporate a weir by-pass system. The dam
  must be designed to capture water during storm events only and allow a trickly flow all year round
  as per natural conditions. Refer to Section 9.1.4 Water Management.
- A geological assessment (September 2025) has been carried out by SRK and provided as Appendix H7; a
   Preliminary Dam design has been prepared by GG&G Consulting Engineers and provided as Appendix B7. The
   preliminary design has been sent to the aquatic specialist to confirm the design meets the required
   hydrological requirements of the catchment area and all measures have been incorporated into the design
   to prevent / reduce impacts as far as possible. This will also be submitted to the DWS / BOCMA as part of the
   WULA
- The preliminary dam design allows for the development of the dam in phases, with phase 1 having a dam storage of about 40 000 m3 at a dam wall height of 10 m (at the spillway crest) for the expected lower scale agricultural operations in the short to medium term. The dam design has allowed for future dam raise for additional storage when the agricultural activities reach full scale operations to increase the dam storage holding capacity to150 000 m3, at a wall height of about 14.5 m (at the spillway crest) with a flooded area of about 4.9 ha.
- The release flow mechanism has been incorporated into the design to maintain downstream baseflows release to meet the ecological water requirements of the reserve. A coffer dam will be constructed upstream of the proposed dam site during the construction phase to keep the construction area dry; the dam construction is also recommended to be planned during the dry season. Given the steep nature of the river embarkments on either side of the proposed dam wall, an underground pipeline will be installed to specifications from the coffer dam to gravitate water out of the coffer dam as required during construction; this pipe will be maintained as part of the release flow mechanism; the pipe will be placed beneath the dam the optimal dam site area in terms of geological requirements to minimise foundations, is very narrow and a bypass will therefore not be possible. The release flow will be digitally metered and regularly recorded for submission to BOCMA as per WUL conditions. The released flow will mimic the natural non perennial conditions with increased release during storm events and minimal flow during dry conditions

All Phases
Planning – Planning Team

- Ensure an Environmental Management File is put in place to contain all documents / report which pertain to the relevant conditions of the planning, construction and operational phases (e.g. EA, permits, waste disposal certificates etc.)
- Ensure all approvals in place
- Ensure all preconstruction requirements are in place prior to construction
- Ensure required engineering designs is review by aquatic specialist and approved by DWS
- Method statements for construction phase are to be compiled by the project team and be aligned to mitigation measures and conditions of this EMPr the Environmental Authorisation (if attained)
- Construction team should include a suitably qualified Environmental site officer to assist with daily environmental management on site and compliance
- Appoint a EAP / specialist / environmental control officer to ensure environmental management requirements are met by carrying out monthly external audits during construction phase / annual audits during operational phase.
- Suitable budget to be assigned to environmental management requirements for construction and operational phase
- Operational management plans are to be aligned to mitigation measures and conditions of this EMpr and Environmental Authorisation (if attained)

#### 2. Restriction of construction work areas

• Movement of workers must be limited to areas under construction. Access to surrounding areas is not permitted; these must be designated as no-go areas during construction.

#### 3. HERITAGE

## **Construction Phase – Construction and Planning Teams**

- If archaeological / paleontology sites are unearthed / identified, the find brought to the immediate attention
  of the developer and all work is to be stopped immediately and reported by the ECO accompanied by
  photographs and coordinates. This must be sent to a suitable specialist and the WC Heritage as soon as
  possible to inspect the findings. Any recommendations followed from such an investigation must be carried
  out.
- Any discovered artefacts shall not be removed under any circumstances without consent from the WC Heritage Authority.

#### **Operational Phase - Operational and Planning Teams**

Operational Phase – follow procedure if any artefacts discovered in operational phase

#### 4. TERRESTRIAL BIODIVERSITY

## 4.1 Restriction of footprint

- No further expansion of agricultural areas or development of structures other than those identified in this assessment should take place(Refer to SDP 2025; **Table 2** and **Table 3**)
- It is important that clearing activities are kept to the minimum and take place in a phased manner; this allows any smaller animal species to move into safe areas and prevents wind and water erosion of the cleared areas.
- Gathering of firewood / plants /fauna in adjacent areas is not permitted outside of search and rescue operations, AIS clearing operations. Staff and visitors should be informed of such.
- Fines must be imposed for illegal collection of plants / animals on the property and reported if required (i.e poaching suspected)

Ongoing removal of AIS within drainage line areas on the property; Buffers (32 meters) of intact riverine / thicket vegetation should be maintained along all drainage lines and should not be used for any activities (including agricultural activities) with exception of authorised activities (e.g road crossings, AIS clearing, revegetation, instream dam)

## 4.2 SCC and protected species

- All protected trees identified must be demarcated prior to the commencement of the construction.
- If it is anticipated that protected trees will be affected by the construction, then the appropriate forestry licence must be obtained first.
- Construction of the dam must occur during the dry season (i.e. December to January / June to July)
- The disturbance footprint of activities must be clearly defined and demarcated
- Carry out search and rescue for indigenous fauna and flora / protected trees within the agricultural footprint / enclosure footprint prior to disturbance of the area;
- Rescue identified fauna / flora and place in similar area on property outside of construction footprint / agricultural / enclosure footprints (as necessary).
- Permits required for fauna search and rescue (i.e., tortoises) must be obtained before any construction
  commences. Some animal species that potentially occur in the project area are protected under CITES and the
  PNCO. Although the status of these species is not necessarily equivalent to that of SCC, a permit is required for
  their removal where appropriate. For example, tortoises are listed on Schedule 2 of the PNCO and will,
  therefore, require permits for their removal during the construction phase of the project.
- A permit is required for activities that disturb protected bird species, particularly during the breeding season. Sites with eggs or chicks are considered to be protected sites.
- Threatened species should be removed to similar habitat within proximity of the project area by a suitably
  qualified person where appropriate. Reptiles such as lizards are less mobile compared to mammals, and some
  mortalities could arise.
- Record of permits for removal / transplanting of sensitive species of conservational concern / protected trees to be kept on record in EM file for audit purposes.
- Ensure all required permits are in place from CapeNature for the predator and elephant enclosures.

#### 4.3 Fauna management and monitoring

- At any point (during construction), if an animal with limited mobility is observed on site, this should be reported to the ECO and construction temporarily halted.
- No animals are to be harmed or killed during the course of operations
- All open excavations must be securely fenced or barricaded. Excavations / dams / reservoirs must be checked
  daily for trapped fauna; floating devices should be placed in these for any trapped fauna to use. Trapped animals
  are to be rescued and released.
- For any assistance with snake removals/relocations, identifications, or bite treatment contact the African Snakebite Institute.
- No insect zappers should be allowed on site, nor the general application of insecticides around infrastructure. Ecofriendly repellents are readily available (i.e. citronella oil/lotions) and should be used instead.
- No feeding of wildlife is permitted, and no disposal/discarding of any food waste (bones, scraps, fruit pips/cores) within the surrounding environment is allowed.

#### 4.4 Landscaping

• Gardens to be redesigned to be water wise and avoid erosion and friendly to wildlife and the greater natural habitat.

- Plan gardens to capture rainfall & slow water loss.
- Create a grey-water wetland if there is a need for water filtration & absorption of extra nutrients.
- No garden waste is to be dumped in any remaining natural area and must be disposed of in a responsible manner. Select an existing level site within an existing disturbed footprint for a composting area.
- No NEMBA invasive plants permitted in landscaping
- Plant local indigenous vegetation; thicket around dwellings are recommended as fire mitigation measures; grey water wetlands can also be planned to serve as a firebreak for the dwellings.
- Avoid plants that are hybrids and cultivars
- Plant during the rainy season (early winter May/June) and add a 10cm thick layer of wood chip to keep in moisture.
- Reduce or replace lawns with water-wise groundcovers or enlarging shrub beds.
- Add local edible and aromatic plants
- Avoid water & nutrient intensive vegetable gardens
- Ensure soft landscaping (natural vegetation) is used as opposed to hard landscaping (avoid impermeable surfaces)
- Clearly delineate maintenance zones and employ low-impact maintenance techniques
- Schedule major maintenance activities to avoid critical periods such as flowering, seed dispersal, and pollination periods (for most species this is during spring between September to November).

#### 4.5 **Game Farming and Stock Farming:**

The carrying capacity of ptn 420 is estimated at between 45 and 65 LSU; the existing LSU is 92 LSU.

The carrying capacity of ptn 373 is estimated at between 60 and 104 LSU; the existing LSU of 107 is considered to be at maximum land capacity.

The current ratio of feeders is estimated at:

Browsers: ~28.5%Grazers: ~39.5%

Mixed Feeders: ~32%

## Recommended ratio:

Browsers: ~40–60% BrowsersGrazers: ~30–50% Grazers

Mixed Feeders ~10–20%

- Reassess stocking rates and the browser: grazer ratio relative to carrying capacity; It is recommended that
  approximately 859 ha of the farm portions be rezoned to open space 3 and managed for conservation purposes.
  This will increase the area available to current game on the site.
- Monitor sensitive species and implement exclusion zones or buffer areas in regions with confirmed SCC or high conservation value.
- Consider removal of extra-limital selective grazers (for example zebra, waterbuck) are not typical of this vegetation type their presence should be justified by low numbers and active management.
- Encourage coexistence of native fauna and managed game by:
  - Maintaining connectivity between natural patches
  - Avoiding fencing that blocks small animal movement;
- Ongoing monitoring of the 4 elephants will be required to determine their natural foraging in the area during walks. Record of plants utilized naturally should be kept and note if any AIS is preferred.
- Incorporate these measures into a comprehensive game farm management plan
- Ensure all SCC permits, enclosure permits, and game farming permits are in place and kept up to date and relevant requirements are adhered to

#### 5. Roads and crossings

- Design for new access at km 20.33 of the TR3302 is to be submitted to the district Road Engineer and to put in place within one year of the NEMA S24G decision.
- The new access at Km 20.33 is to be design and constructed according to the Western cape Government construction drawings and regulations
- The new access will traverse existing agricultural area and no clearance of more than 300m2 indigenous
  vegetation will be required. Any indigenous plants that may be removed from this area (i.e. between TR3302 and
  boundary of ptn 420) are to be transplanted in recommended open space 3 area where rehabilitation is required
  (eg in areas where ongoing AIS is taking place)
- Preferably one road should be used for access (entry and exit) to the OGF 2 dam; the access road may not be the Jeep track that extends between Areas 2 and 3 along the Ruiterbos River.
- Entry/exit points at each crossing must be restricted to a single track to limit disturbance to the bank and the potential for erosion to occur; and
- Road crossings must be routinely inspected. Any bank sections which have become exposed and appear vulnerable
  to erosion should be immediately protected in an appropriate manner so as to prevent or arrest the erosive
  process before further damage to the channel can occur;
- No new road may be constructed directly adjacent to an eroding existing road, especially when no erosion control measures are in place.
- Determine which roads are needed for game drives, agricultural activities and management activities and rehabilitate roads not needed / not feasible to drive- mulch and revegetate
- No more new roads are to be made along the valley slopes that lead to the Ruiterbos River.
- Where feasible, utilize existing roads instead of constructing new ones. Upgrading and expanding current roadways can be more environmentally beneficial than creating new routes.
- Some of the existing roads are redundant, and one path must be chosen and used. Design and implement shared access routes where possible, combining multiple access points into single, multi-use roads. This approach minimizes the total length of roads required and reduces habitat fragmentation.
- Plan road layouts to minimize impact on sensitive areas, such as wetlands, riparian zones, and critical habitats. Ensure that the road network is as compact and direct as possible to reduce land disturbance and fragmentation.
- Where roads are along steep inclines, ensure that the road meanders down as opposed to cutting straight down. This will minimise erosion.
- The new road that was excavated between May and August 2024 must be rehabilitated with fynbos species only, as the old road is still functional and can be upgraded to reduce the likelihood that it will become eroded.
- The illegal wide road assessed north of the northernmost dwelling in Area 2 should preferably be rehabilitated and the associated river crossing should be removed.
- The road at Area 4-16 should be equipped with a culvert and the dammed area modified to ensure drainage from the area; the surrounding 0.89 ha to be seeded with thicket / fynbos vegetation. A well-maintained road between Areas 4-15 and 4-17 is important as these will be the main agricultural areas on the site.
- Put in place stone spillways / culverts where necessary
- Put in place anti-erosion berms in roads where necessary
- Establish strict speeding regulations. All personnel and visitors to abide to speeding regulations. Signs should be
  put up along the roads to remind people of speed limits, as well as warnings to look out for small animals on the
  roads. Speedbumps or other speed reducing techniques can be incorporated into the road design to assist in
  keeping speeds to a minimum.

#### 6. Alien Invasive Vegetation Management

Landowners are under legal obligation to control alien plants occurring on their properties. Alien Invasive Plants require removal according to the Conservation of Agricultural Resources Act 43 of 1983 (CARA) and the National Environmental Management: Biodiversity Act (10 of 2004; NEMBA): Alien and Invasive Species Lists (GN R598 and GN R599 of 2014).

The property should implement the removal of alien plants in accordance with an alien management plan, best practices guidelines and legal requirements.

#### 6.1 Construction activities

- Materials used during construction must be sourced and transported responsibly to minimise the risk new invasive plants
- Adequately clean construction equipment and machinery to prevent the transfer of invasive seeds / plant material between sites.
- Train all staff to identify common AIS (black wattle) and hand remove as soon as detected
- Dispose small plants; large plants are addressed for operational phase
- Native plant species collected during site clearing activities to be used for site restoration and revegetation to outcompete invasive plants and restore ecological balance

## 6.2 AIS management plan

Alien invasive species management plan to include:

- Protected trees may not be impacted on by clearing activities
- Disturbed areas around dwellings must be cleared of invasives with the aim of rehabilitating the fynbos / thicket vegetation.
- When chemical treatments are necessary for the treatment of invasive plants, use targeted applications that minimize exposure to non-target species.
- Areas with new / small infestations should be targeted for alien clearing first, gradually moving to areas with denser & more established invasions.
- Target hilltops and upstream areas first for clearing.
- Native plant species should be used for site restoration and revegetation to outcompete invasive plants and restore ecological balance.
- New invasions to be promptly cleared on ongoing basis
- Do not stockpile removed AIS materials / debris in watercourses within floodline of the river
- Alien invasive species must continue to be controlled along the river. Felled trees must be removed from the banks and must not be dumped in the active channel of the river.
- No burning of AIS is preferred; if AIS material is to be burnt, relevant burning permits must be in place and AIS it must not be burnt in watercourses / within floodline of the river; should this occur, the potash must be removed as soon as possible, it can be mixed with indigenous seed and mulch and spread on bare soils.
- Clear smaller areas at a time:
- If and where possible, shred / chip cleared material (if no seeds) on site to create mulch to prevent erosion and suppress wattle regrowth
- Create windrows (long, narrow piles) of AIS material away from the river and position these on contour lines to reduce erosion and allow for natural decomposition
- Implement biological control measures to prevent seed formation (seed-feeding weevils and gall-forming flies
  and wasps which prevent seed production by inducing the formation of galls instead of seed pods). This will
  increase the prospects for effective control through the combination of mechanical felling, fire, and seed
  reduction.

- Passive regeneration together with active planting of the riparian zone must be encouraged. Passive regeneration allows indigenous species to naturally re-seed and re-establish along the banks. This process must be encouraged wherever possible and vehicle access must be restricted to use of the road only so as to avoid disturbance to new seedlings. Recommended plant species for active planting provided in rehabilitation measures (Table 4)
- Combine mechanical felling, chemical control, and biological control. This measure is in place for Black wattle infestations along the valley edges where the Ruiterbos River meanders.
- Plant indigenous vegetation (such as carpobrotus or other thicket soil binding plants) on cleared sloped areas to encourage regrowth as per rehabilitation measures.
- Fire management should also include burning of dense AIS areas where burning of wattle occurs prior to seed bearing stage of wattle and during seeds formation of fynbos (i.e. winter months)
- New invasions to be promptly cleared on ongoing basis
- Research shows that elephants have preference to Acacia mearnsii to fynbos vegetation; plan walks through
  areas with newly emerging A. mearnsii in attempt to allow elephants to remove these naturally. A. mearnsii
  which is cut on the property can also be used as feed for the elephants in combination with lucerne.
- A Draft AIS management plan is provided in Annexure 2 of this Draft EMPr. It is recommended that this be approved with the EMPr for implementation on the farm portions.

#### 7. FIRE MANAGEMENT

- Fire management must comply with the National Veld and Forest Fire Act No. 101 of 1998, which mandates a 5m fire break where natural veld adjoins agricultural land or alien areas.
- All landholders must implement a fire management plan. A permit is required from the Fire Protection Association (FPA) to conduct controlled burns.
- Controlled burns must be planned with local fire authorities
- Recommended fire frequency: Every 10 to 15 years for mature calcrete and silcrete fynbos types as these
  fynbos types typically regenerate more slowly than sandstone fynbos. Too frequent fires could reduce seeds
  banks. Last fire occurred December 2016; controlled burns will be required between 2026 and 2031.

## **Recommended burning Strategy:**

- Patch burns (mosaic burning): Recommended over blanket burns to reduce fire intensity, maintain habitat heterogeneity, and allow wildlife and livestock to move between burned and unburned areas.
- Target areas: Prioritize areas with dense alien growth or moribund vegetation for burning. Burning should occur before seed-set of alien species like Acacia mearnsii or Acacia cyclops.
- Post-burn recovery: Exclude livestock for 1 season post-burn using temporary fencing to allow vegetation recovery. Follow up with manual clearing to prevent alien species resurgence.
- Conduct burns late summer to early autumn (March–April) under mild conditions to reduce fire risk and align with the natural fire season, allowing early winter rains to stimulate regrowth.

## **Ongoing Management and Safety:**

- AIS control: Ongoing clearing of alien invasive species (AIS) must be part of the fire management strategy.
- Fire safety: Designate areas for fire, ban open fires outside these zones, and install fire-proof hedges using indigenous species to reduce fire risk around built environments.
- Emergency measures: Ensure adequate fire-fighting measures, emergency water supply, and visible emergency numbers at all times. Key staff should have access to emergency contact information.
- Training: Provide job-specific fire management training for all individuals responsible for managing fires.

## 8. Aquatic ecosystem and biodiversity

## 9.1.1 **Ongoing requirements**

- Ongoing removal of alien invasive species (AIS) must be implemented within all drainage line areas across
  the property in accordance with the draft AIS management plan (Annexure 2)
- Buffer Zones: A minimum buffer of 32 meters of intact riverine or thicket vegetation must be rehabilitated
  using flora species list provided and maintained along all drainage lines (Gouritz thicket / fynbos mosaic).
   These buffer zones must remain undisturbed and may not be used for any activities, including agriculture,
  except for:
  - Authorised road crossings
  - o The existing dwelling (A1 as per SDP,2025) located within 32 meters
  - o AIS clearing activities and passive / active regeneration with indigenous vegetation
  - The in-stream dam (OGF2 dam)

## 9.1.2 Activities within watercourses – road crossing and rehabilitation at Area 4-16

- Rehabilitation: The disturbed area should be rehabilitated to restore thicket, riverine, or wetland vegetation, in accordance with the using flora species list provided in the rehabilitation plan.
- Hydrological Connectivity: A proper hydrological flow path (e.g. culvert or low-water crossing) must be installed at the road crossing. This road is anticipated to be retained long-term due to its role in accessing recommended agricultural areas 4-15 and 4-17.

## 9.1.3 Activities within watercourses – rehabilitation of gabion road structure and OGF 1 dam

• The existing dam must be rehabilitated as a condition of approval for the new larger dam using measures and accompanying flora species list provided in the rehabilitation plan.

## 9.1.4 Management of Construction of instream dam

- Construction of the dam must occur during the dry season (i.e. December to January or June to July);
- Working areas must be clearly demarcated and no vehicle access or disturbance must take place outside of demarcated areas:
- Rehabilitate and naturalise areas beyond the development footprint, which have been affected by the construction activities, using indigenous grass species;
- Vehicles must be restricted to travelling only on designated roadways to limit the ecological footprint of the proposed development activities;
- Restrict vehicle access to the river to single points that are clearly demarcated;
- Excavators and all other machinery and vehicles must be checked for oil and fuel leaks daily. No machinery or vehicles with leaks are permitted to work in the river;
- No fuel storage, refuelling, vehicle maintenance or vehicle depots to be allowed within 30 m of the edge of the river;
- Ensure that all stockpiles are well managed and have measures such as berms and hessian sheets implemented to prevent erosion and sedimentation. Stockpiles must be located more than 30 m from the edge of the river;
- Contractors used for the project should have spill kits available to ensure that any fuel or oil spills are cleaned and disposed correctly;
- Adequate sanitary facilities and ablutions must be provided for all personnel throughout the project area.
   Use of these facilities must be enforced (these facilities must be kept clean so that they are a desired alternative to the surrounding vegetation) and must be routinely serviced; and

• No dumping of construction or waste material is permitted. All construction and waste materials must be removed from the river valley and correctly disposed.

## 9. Water Management

Water use license application to include:

Section 21(a): Taking water from a water resource
 Any additional abstraction from the Ruiterbos River must be subject to the formal surrender of existing borehole water use rights on RE/420 and RE/373 to ensure overall compliance with the lawful water allocation.

Dam – irrigation, domestic, animal use, restaurant use

- Section 21(b): Storing water
  - Dam and existing reservoirs on site
- Section 21(c): Impeding or diverting the flow of water in a watercourse. for infrastructure near or within mapped wetlands and drainage lines, including dwellings and roads.
- Section 21(i): Altering the bed, banks, course, or characteristics of a watercourse.
   construction within or adjacent to a wetland or drainage line, dwellings, roads, dam, rehabilitation and AIS clearing
- A Risk Assessment Matrix compiled by an SACNASP Professional (aquatic) must accompany the WULA to identify and evaluate the magnitude, likelihood, and consequences of each water use activity and its potential impact on the water resource.

## General

- Any leaks noted to be immediately repaired.
- Install rainwater tanks at all roofed structures to assist with catchment of water during high rainfall
- Make use of drip irrigation as far as possible.

## 9.2 Management of OGF2

## 9.2.1 **Dam Design Requirements**

- All irrigation and operational water demands must be clearly quantified to ensure abstraction and meets the water demand for the farm and remains within permissible limits. The catchment MAR (1.24 Mm³) is sufficient to meet the proposed irrigation demands, provided this is managed efficiently.
- A comprehensive water balance must be developed, integrating inflows (from hydrological modelling), irrigation needs, and environmental flow releases. The dam must not be designed to store volumes exceeding the actual water demand
- Final design of dam to consider ecological water requirements and incorporate release flow infrastructure, either through a pipe-and-valve outlet system or via a bypass mechanism (e.g., weir and pipeline),
- Pumps used to abstract water from the dam must be fitted with calibrated flow meters with the purpose of
  ensuring that annual lawful water allocations are not exceeded, and abstraction volumes must be submitted
  to BOCMA bi-annually to ensure lawful water use.

## 9.2.2 Interim Release flow requirements (for comment from DWS)

Mean Annual Runoff (MAR): 1.24 million m³/year

Proposed Dam Capacity: 150,000 m<sup>3</sup>

Interim Environmental Water Requirement (EWR): ~9.5% of MAR ≈ 118,000 m³/year

• A formal Reserve Determination has not yet been undertaken. However, based on the hydrological assessment of the dam catchment (MAR estimated at 1.24 million m³/year) and considering the planned

- cessation of existing borehole abstractions on RE/420 and RE/373, it is reasonable to apply a precautionary approach and implement an interim EWR.
- An interim release allocation of approximately 118,000 m³/year (9.5% of MAR) is estimated to simulate continuous environmental baseflows downstream of the dam. This estimate aligns with standard EWR ratios applied within the K10D catchment for similar river systems.

#### **Dam Operation Requirements**

- The dam must be operated to:
  - Maintain continuous baseflow release throughout the year as per natural conditions,
  - Only capture water during storm events or peak rainfall,
- A pipe-and-valve outlet system, or weir bypass, is recommended to enable:
  - o A year-round trickle flow to maintain ecological connectivity downstream,
  - o Temporary flow increases during and after rainfall events to mimic natural runoff patterns.
- This approach reflects the regional rainfall regime (~450 mm/year), with peak rainfall typically occurring during spring (September–November) and autumn (March–May), and dry conditions prevailing from December to February.

A geological assessment (September 2025) has been carried out by SRK and provided as Appendix H7; a Preliminary Dam design has been prepared by GG&G Consulting Engineers and provided as Appendix B7. The preliminary design has been sent to the aquatic specialist to confirm the design meets the required hydrological requirements of the catchment area and all measures have been incorporated into the design to prevent / reduce impacts as far as possible. This will also be submitted to the DWS / BOCMA as part of the WULA

The preliminary dam design allows for the development of the dam in phases, with phase 1 having a dam storage of about 40 000 m3 at a dam wall height of 10 m (at the spillway crest) for the expected lower scale agricultural operations in the short to medium term. The dam design has allowed for future dam raise for additional storage when the agricultural activities reach full scale operations to increase the dam storage holding capacity to150 000 m3, at a wall height of about 14.5 m (at the spillway crest) with a flooded area of about 4.9 ha.

The release flow mechanism has been incorporated into the design to maintain downstream baseflows release to meet the ecological water requirements of the reserve. A coffer dam will be constructed upstream of the proposed dam site during the construction phase to keep the construction area dry; the dam construction is also recommended to be planned during the dry season. Given the steep nature of the river embarkments on either side of the proposed dam wall, an underground pipeline will be installed to specifications from the coffer dam to gravitate water out of the coffer dam as required during construction; this pipe will be maintained as part of the release flow mechanism; the pipe will be placed beneath the dam - the optimal dam site area in terms of geological requirements to minimise foundations, is very narrow and a bypass will therefore not be possible. The release flow will be digitally metered and regularly recorded for submission to BOCMA as per WUL conditions. The released flow will mimic the natural non – perennial conditions with increased release during storm events and minimal flow during dry conditions.

## 9.2.3 Compliance and Monitoring

- All pumps abstracting water from the dam must be equipped with calibrated flow meters to monitor water usage; abstraction volumes must be submitted to BOCMA bi-annually to ensure lawful water use.
- Additional abstraction from the Ruiterbos River must be conditional upon the formal surrender of borehole water use rights on RE/420 and RE/373 to ensure that cumulative abstraction remains lawful.
- Biomonitoring Plan: An aquatic biomonitoring programme, including at minimum SASS and IHI (Index of Habitat Integrity) assessments, must be implemented. This plan should monitor whether the dam's environmental flow releases are maintaining downstream aquatic ecosystem integrity at the Recommended Ecological Category (REC). The specific frequency, timing, and monitoring indicators must be informed by the EWR determination.

#### **10. Soil Management**

#### 10.1 Restrictions

- Recommended agricultural areas are provided in Table 2, Table 3 and Table 1
- No planting on slopes steeper than 1:5 (20%) to prevent erosion
- Mulch bare areas chip AIS material (without seed) for mulch material and place in windrows as per AIS management plan
- Minimize soil disturbance and compaction, such as using hand tools instead of heavy machinery. Use specialized equipment designed to reduce environmental footprint, like lightweight mowers or trimmers.

## 10.2 Soil Management

- Stabilize disturbed soils promptly with native vegetation or erosion control materials as per rehabilitation plan.
- Revegetate slopes where required using carpobrotus and other soil binding thicket plants as per rehabilitation plan
- Liming will be required, particularly on upper slopes and ridge crests, based on soil pH levels and crop requirements (especially for lucerne and fruit trees).
- Deep ripping to depths of at least 60 cm should be undertaken only where compacted soils are present, and not in sensitive areas such as fynbos zones or slopes prone to erosion.
- Ridging to a height of 40 cm is recommended on most sites for the establishment of citrus, avocado, or olive trees.
- Ridges should follow natural contours to reduce the risk of erosion and to assist with water retention.
- Apply organic mulch to all open areas between and around crops to:
  - Reduce water evaporation
  - o Suppress weed growth
  - Improve soil structure and crop yields
- Cleared Alien Invasive Species (AIS) biomass (seed-free) may be used as mulch
- Maintain permanent organic ground cover on worked areas to prevent wind and water erosion and reduce dust emissions.
- Exposed areas between fruit trees should be permanently mulched and/or interplanted with low-growing, water-wise indigenous ground covers such as:
  - o Helichrysum cymosum
  - o Pelargonium capitatum
  - Carpobrotus edulis
- Where appropriate, interplant perennial indigenous crops for sustainable harvesting, such as:
  - o Artemisia afra (African Wormwood)
  - Origanum vulgare (Wild/Berg Oregano)
  - Salvia africana-lutea (Wild Sage)
- Land clearing activities should be scheduled to avoid periods of heavy rainfall to minimize erosion risk.
- Avoid working with wet soils, as this will damage soil structure and compromise productivity.
- No heavy machinery is permitted within these areas.
- Access is limited to existing tracks or clearly demarcated low-impact routes; No off-track driving is allowed.
- Removal of AIS will incease runoff in the area, however, planting as much as possible and as quickly as possible is required to avoid sedimentation and erosion problems. The recommended open space 3 provided in the revised SDP, 2025 is recommended to be implemented which will include most of the drainage lines on OGF. With implementation of the recommended OS3, consider sourcing indigenous plants belonging to

Gouritz thicket, Garden Route Granite fynbos and Swellednam silcrete fynbos from nearby authroised developments in the Mossel Bay Municipality to reduce costs and also ensure these plants are transplanted in a similar vegetation type with similar conditons. Ensure all required permits are in palce from cape Nature and DFFE for search, removal and relocation of sesntive plant species / protected trees.

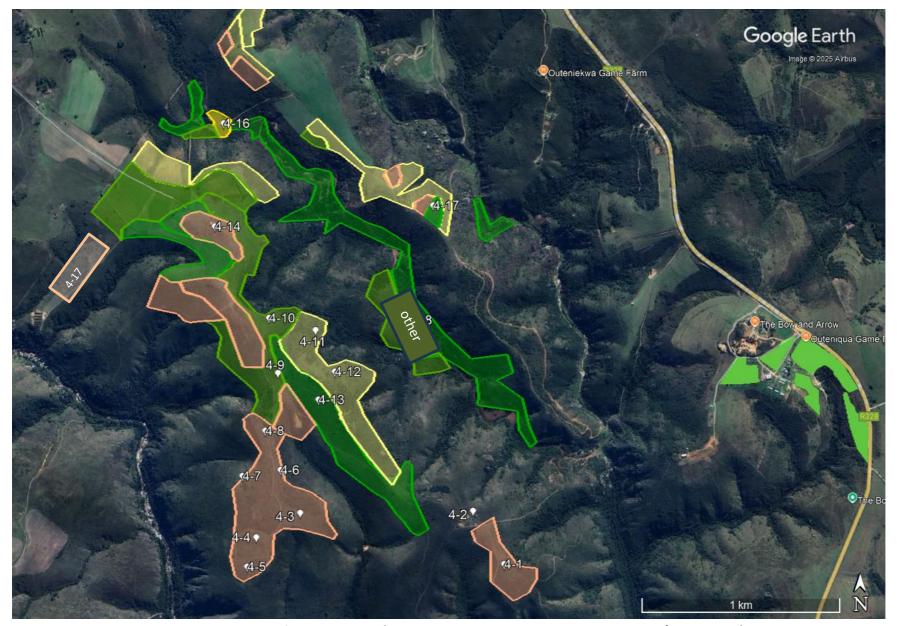
#### Other:

- Rehabilitation of AIS-cleared areas along drainage lines in accordance with alien invasive management plan and rehabilitation plan. Maintain a 10–15 m buffer from the drainage line, to be rehabilitated with locally indigenous riverine vegetation.
- No fertilisers, pesticide, herbicides, fencing, or irrigation is permitted in this area (unless for target clearing of AIS)
- Agathosma recurvifolia (Least concern) and Cyclopia subternata (near threatened) are included in the list of
  plants to use for rehabilitation. Sustainable harvesting of these could take place once the area is
  rehabilitated with the plants included in the rehabilitation plan. Access to this area to be primarily by foot,
  with wheelbarrows or hand-pulled carts for harvest transport. sustainably harvested (not uprooted),
  allowing natural regeneration to continue supporting erosion control, habitat provision, and water quality.
  Sustainable harvesting includes. No commercial varieties of Agathosma recurvifolia and Cyclopia subternata
  permitted due to interference with surrounding species. Permits will be required for Cyclopia subternata
- This area is recommended for inclusion in the open space 3 area

## 10.3 Fertilizers and pesticides

- Do not apply any additional inputs outside of designated agricultural areas
- Potassium based (not sodium based) fertilizers recommended to prevent saline runoff form farming areas.
- Avoid over-application of fertilizers and apply the correct amount
- Rotate annual crops from different botanical families to reduce the risk of soil-borne diseases and pest build-up; example Lucerne Maize Lucerne Maize: Rotate between these two crops to allow for nitrogen fixation by lucerne to support maize growth. Lucerne will improve soil health, especially in terms of nitrogen content, benefiting maize crops.
- Avoid overuse of synthetic fertilizers. After growing a leguminous crop like lucerne, the soil will have increased nitrogen, reducing the need for nitrogen-based fertilizers in subsequent crops.
- Between crop rotations, consider using organic amendments such as compost or cover crops to build soil organic matter, improve microbial activity, and reduce the need for synthetic fertilizers and herbicides
- Use minimum tillage or no-till practices between crop rotations to protect soil structure, prevent erosion, and promote water infiltration. This also helps maintain beneficial soil organism
- Apply organic mulch after crop harvests to preserve soil moisture, prevent erosion, and reduce weed growth between rotations.
- Apply pesticides when absolutely necessary and follow application guidelines to minimize environmental impact.
- Use Integrated Pest Management techniques where practical, such as monitoring pest populations, introducing beneficial insects, and applying organic or low-toxicity treatments.
- Apply fertilizers and pesticides with the utmost caution.
- Investigate use of alternative fertilizers manure, cakes of plant origin, vermicompost, microbial biofertilizers
- Keep all fertilizers and pesticides well labelled and locked away in a secure store room.
- If pesticides are to be used:
  - Make use of target-specific pesticides only.
  - Avoid persistent pesticides, rather using biodegradable types.

- Understand how each pesticide works, and when its effects should become evident.
- Ensure selection of the correct pesticide, and best method of application and dose.
- Avoid indiscriminate aerial spraying at all times, and aerial spraying on windy days.
- No spraying of pesticides if bees are present
- The use of pesticides are regulated by the Department of Agriculture, Fisheries and Forestry. Ensure compliance with applicable legislation: Legislation applicable to pesticides and fertilizers includes:
- Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947)
- Agricultural Pest Act, 1983 (Act No 36 of 1983)
- Section 24 of the Constitution of the Republic of South Africa, (Act No. 108 of 1996)
- Medicines and Related Substances Control Act, 1965 (Act 101 of 1965)
- Hazardous Substances Act, 1973 (Act 15 of 1973)
- The Foodstuffs, Cosmetics and Disinfectants Act (FCDA), 1972 (Act No. 54 of 1972)
- The Occupational Health and Safety Act (OHSA), 1993 (Act No. 85 of 1993)
- Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983)
  - Ensure correct training in proper pesticide use is provided to workers.
  - Ensure the correct Personal Protective Equipment (PPE) is provided and used during pesticide applications.
  - Paraquat is not to be used due to its extreme toxicity to animals and humans.



• Figure 2: Generalised soil potential of the study area (yellow: Low; medium: Orange; medium-high / high: green); agricultural area on area 5-1,2 on ptn 420 indicated in east

Table 1: Summary of soil potential areas (areas 1 to 17) on ptn 373

Area	Area Size Soil		Limitations	Generalised Soil	Dryland Irrigated						Land use	Recommendation
	estimate	unit		Potential	Pastures	Pastures	Avocado	Citrus	Maize	Olives		
1	4,98ha	Nk1	Gravel; restricted depth; low Water holding capacity	Medium	Medium						Past use /	Only dryland in 0.71 ha if required / Future use – not feasible
2	1.55 ha	Be 1	Stone; saprolite	High	Medium High	High	High	High	High	High	Past use	Only dryland grazing
3	2.01 ha	Hh1	Gravel; restricted depth; low Water holding capacity	Medium	ML	M	-	-	-	-	In use	Preferably not be used; if used, only dryland grazing
4	2.87ha	Hh1	Gravel; restricted depth; low Water holding capacity	Medium	ML	М	-	-	-	-	Past use	Only dryland grazing
5	0.5 ha	Hh1	Gravel; restricted depth; low Water holding capacity1	Medium	ML	М	-	-	-	-	Future use – not feasible Intact fynbos	Retain as fynbos; removal of dense wattles as per AIS management plan
6	6.79 ha	Hh1	Gravel; restricted depth; low Water holding capacity	Medium	ML	М	-	-	-	-	Past use Future use – not feasible	Retain as fynbos; removal of dense wattles as per AIS management plan
7	0.34 ha	Hh1	Gravel; restricted depth; low Water holding capacity	Medium	ML	М	-	-	-	-	Future use – not feasible	Retain as fynbos; removal alien trees as per AIS management plan
8	3.38 ha	Hh1	Gravel; restricted depth; low Water holding capacity	Medium	ML	М	-	-	-	-	Past use	Only dryland; removal alien trees in field and adjacent area as per AIS
		Vf 1	Gravel; restricted depth; low Water holding capacity	medium high	Medium High	High	-	Medium	Medium	Medium		management plan
9	3.56 ha	Vf 1	Gravel; restricted depth; low Water holding capacity	medium high	Medium High	High		Medium	Medium	Medium	In use	No further expansion this area. Manage agricultural area as per mitigation measures.
10	2.5ha	Vf 1									In use	Manage agricultural area as per mitigation measures.

Area	Size	Soil	Limitations	Generalised Soil	Dryland			Irrigate	ed		Land use	Recommendation
	estimate	unit		Potential	Pastures	Pastures	Avocado	Citrus	Maize	Olives		
11	2.48 ha	GS1	Stone and rock; restricted depth; low WHC	Low	Medium Low						Past use - invaded	Dryland grazing Manage as per AIS management plan
12	3.14 ha										Past use - invaded	Not suitable – Manage as per AIS management plan
13	2.85ha										Future - likely feasible (2.85)	Low ecological importance however soil potential is indicated as low for the corresponding area. Possible dryland
13	9.2ha	Be1	Stone;saprolite	High	Medium High	High	High	High	High	High	Remaining area 13 – not feasible	High ecological importance
14	3.6 ha	GK2	This section on Area 4-14 is where supporting infrastrucutre and dwellings are in place. Area is recommended for supporting strucutrures, storage faiclities and compost areas.	High and medium High (in use)  Medium potential (past use)	М	M	-	-	M	-	In use Past use	Maintain as irrigated agricultural area; use past use area for additional irrigated area and required dwellings, storage.
14	30 ha	GK1	Gravel; sub-optimal WHC	MH	М	МН	-	-	МН	-		Existing agricultural
and		Be2	Gravel & stone;	МН	М	Н	М	М	Н	МН		area suitable for
18		Be3	Gravel; dense lower subsoil	Н	М	Н	МН	Н	Н	Н		combination of maize, olives, avocados and
		Vf1	Restricted depth; low WHC	MH	МН	Н	-	М	М	М		citrus.
	6.6ha + 6	Gs1	Stone and rock; restricted	L	L	ML	-	-	-	-		Used in past and used
	ha (position of solar)	GS2	depth; low WHC	L	L	-	-	-	-	L		for some grazing. Not suitable for irrigated crops
15	0.33ha	HH1	Gravel; restricted depth; low WHC	Medium	ML	М	-	-	-	-	Future use – not suitable	Retain as fynbos No agricultural expansion permitted.
16	0.89ha	Kd1	Poor drainage	Medium	М	МН	-	-	-	-	In use	Area surrounding dam should be mulched and planted.
17	30.73 ha	Be2	Gravel & stone;	Medium high	M	Н	М	М	Н	MH	Past use	
		CV1	Gravel; restricted depth	medium	MH	М	-	-	М	-		

Area	Size	Soil	Limitations	Generalised Soil	Dryland			Irrigate	ed .		Land use	Recommendation
	estimate	unit		Potential	Pastures	Pastures	Avocado	Citrus	Maize	Olives		
		Tu1	Variable soils; drainage areas	High	Н	Н	Н	Н	Н	Н		Recommended for irrigated mixed
		Tu2	Restricted depth	Medium	М	М	-	-	-	-		cropped farming.
		Se1	Dense structured clay subsoil; soil wetness	Medium low	М	М	-	-	-	-		Manage as per agricultural measures.
		Gs1	Stone and rock; restricted	Low	L	ML	-	-	-	-		
		GS2	depth, low WHC	Low	L	L	-	-	-	-		
Other	5ha	Tb1	Steep slopes; variable soils	Medium high	МН	Н	M-H	М	-	МН	Fynbos with high AIS	Steep areas not recommended (1:5 gradient or more) Recommended to be included in OS3
	15.5ha	TU1	Variable soils; drainage areas	High	Н	н	Н	Н	Н	Н	Thicket / riverine with high AIS	Area runs along drainage line; drainage line; drainage lines are invaded; low impact, water wise indigenous crops (e.g buchu and honey bush), with 10-15 m buffer areas, could be considered on approximately 10 ha.  Recommended to be included in OS3

#### 11. Land Use Recommendations

- Avoid additional clearing activities that will result in fragmentation of habitats. Patch connectivity must be maintained and maximised to allow for movement of pollinators
- Low impact agricultural activities such as bee-keeping / honey production and organic poultry farming can be integrated into crop areas. Bee-keeping supports the pollination of crops such as avocados, citrus, and other fruit trees, improving yields and supporting ecosystem health. Care should be taken to ensure that beehives / chickens are placed in areas that do not disturb sensitive ecosystems or wildlife habitats. Consider chicken tractors.
- Consider olive trees and similar low water requirements crops due to lower water requirements
- Consider sustainable harvesting of *Agathosma recurvifolia* and *Cyclopia subternata* once AIS clearing combined with rehabilitation is underway in accordance with permit requirements and sustainable harvesting guidelines.
- Owl boxes are recommended for natural rodent control, supporting ecological balance.
- Due to the high conservational value it is recommended that the areas which have been identified as
  suitable for agricultural use (approximately 120 ha), including the relevant management and workers
  dwellings and storage facilities, new dam and the restaurant and church area remain zoned as agricultural 1
  and the remaining area, used by game farm animals and comprised of intact fynbos, with thicket and AIS
  along the drainage lines, be zoned as open space 3 for conservation use.
- Town planner to advise on zoning requirements of church and restaurant; it is currently (SDP, 2025 Appendix B8) recommended to remain agricultural 1.

#### 11.1 Energy management

The following measures are recommended to be incorporated:

- Use of solar-powered pumps for irrigation and domestic water supply.
- Energy-efficient lighting and appliances in all new dwellings and hospitality facilities.
- Limited night lighting to reduce disturbance to wildlife and minimize energy demand.

Table 2: overview of land use areas on portion 373

Area	Extent (ha)	Recommendation						
1, 2, 3, 4, 8, 11, 13	11.4ha	dryland grazing agricultural 1						
(2.8ha)								
14, 9, 10,	36ha	irrigated farming agricultural 1						
18	6 ha	Past use - Grazing – not suitable for irrigation – agricultural 1						
17	30 ha	mixed dryland / irrigated as per soil condition						
5,6,7,11,12,13	21.19 ha	retain / rehabilitate as fynbos / riverine as required Open space 3						
(9.2ha), 15, 16								
Other	11.6 ha	Potential sustainable harvesting—						
		identified as having high agricultural potential; the area is along the non-						
		perennial drainage line is infested with wattle species. Consider sustainable						
		harvesting of Agathosma recurvifolia and Cyclopia subternata once AIS clearing						
		combined with rehabilitation is underway in accordance with permit						
		requirements and sustainable harvesting guidelines. No formal crop areas or						
		cultivars recommended.						
		Califyara recommended.						
		Open space 3						

Estimate natural	789 – (89	700 ha
remaining area	ha)	
(proposed /		
preferred)		
Estimate natural	789 – (99	690 ha
remaining area -	ha)	
past use		

## Table 3: overview of land use areas on portion 420

Area	Extent (ha)	Recommendation
Area 1	0.5 ha	5 dwellings – open space 3
Area 2	0.16 ha	Owner's dwelling (A1) - Open space 3
Area 2 / Area 5	0.9ha	Dwelling, farm storage – Agricultural 1
Area 2 / 5.5+6	2 ha	Additional dwellings and roads Past use (6ha); Agricultural 1
5 - 1, 2	10 ha	Mixed irrigated / dryland grazing (Past use – 30 ha)
	5.5 ha	Restaurant and church (7000m2), old quarry, structures Agricultural 1
	1 ha	Elephant enclosure Open space 3
5-3	-	Past use - 6.5 ha Agricultural 1
54	10.4 ha	Predator enclosure (Past use – 10.4 ha) Open Space 3
5-1	1 ha	Elephant enclosure (Past use ) - Open Space 3
Area 5-7	1 ha	Past use (26 ha); structures (current) 1 ha Agricultural 1
Area 5-8	-	Past use (11 ha) - Open Space 3 and agriclutral 1
Estimate natural	489 ha –	456 ha
remaining	(33)	
(proposed /		
preferred)		
estimate natural	489 ha –	410 ha
remaining area –	(78.9)	
past use		

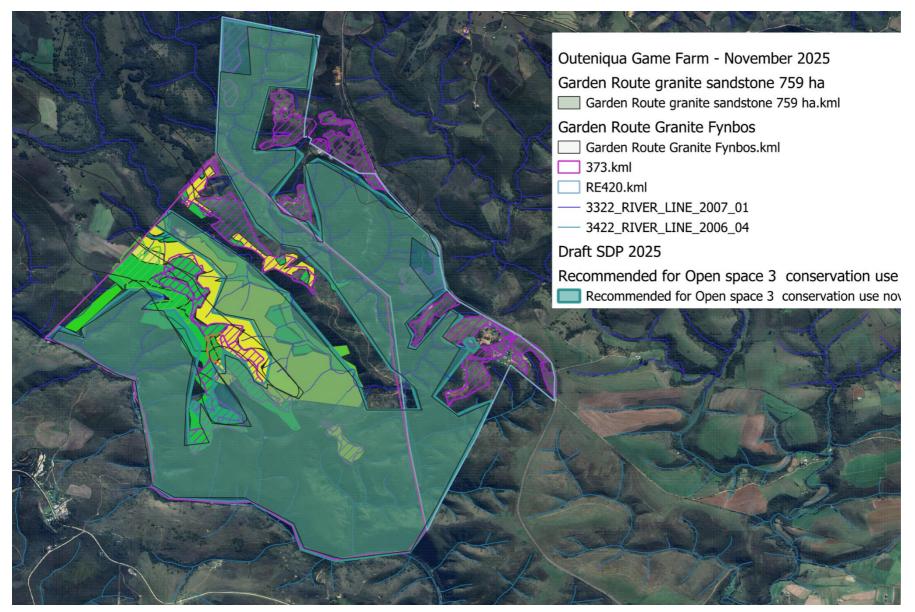


Figure 3: Recommended land uses - Draft SDP 2025 - Recommended OS3 area with indication of amount of CR GR Granite fynbos (which includes Cr Gouritz thicket and AIS in drainage areas); the majority of drainage lines fall within recommended OS3 area

## 12. Management of Local opportunities

- Encourage employment of local persons
- Use local suppliers for required materials and services (e.g. transport, recycling, solar requirements)
- Consider incorporation of sustainable agricultural products into tourism
- Consider incorporation of agricultural produce into restaurant

## 13. Management and Training of staff

- Ensure all operational managers have read the EMPr and communicate measures to the staff through training
- Work specific training must be provided to those dealing directly with AIS removal and revegetation of areas. This will include familiarising themselves with all alien invasives identified on the property as well as all the plants listed in the rehabilitation plan.
- Work specific management must be provided to those working in game farm area with regards to natural SCC deemed likely to occur on the property as well as identification of snares etc.

## 14. Waste management

#### **Waste Stream Identification**

- All waste streams must be identified and documented (e.g., organic waste, AIS biomass, recyclables, ewaste, hazardous waste).
- Note that Argentine ants (Linepithema humile) are known to be invasive in fynbos ecosystems and can
  disrupt balance by outcompeting native ant species. Careful waste management is required to prevent the
  introduction and spread of Argentine ants

#### AIS material

• Cleared AIS material (no seed) not chipped on site, must be stockpiled and processed as mulch at designated areas: Area 4-15, 4-17, 5-1.

#### Waste separation

- Provide facilities for the separation and temporary storage of recyclable waste items:
- plastic, glass, metal, paper
- e-waste (batteries, small electronics
- food scraps
- Waste facilities must be equipped with sealable lids and labelled
- These facilities will likely be required at the operational farm area on ptn 373 and at the restaurant area on ptn 420
- Food waste should not be mixed with recyclables to avoid contamination of the waste streams
- Train staff in waste sorting and ensure adequate signage and infrastructure.
- Identify and partner with a registered recycling facility for regular off-site removal.
- Any waste that cannot be reused or recycled must be disposed of at a licensed, registered waste disposal site.

#### General

- No dumping or burial of waste to take place
- General Waste receptacles should be emptied on a regular basis.
- No littering; ensure good housekeeping of the site (i.e. no litter) at all times.

Service machines and vehicles regularly to prevent unnecessary fumes and leaks.

#### **Food scraps**

Recommended management system

- Food scraps is recommended to be managed using a combination of bokashi (microorganisms) and red wriggler composting worms.
- The first step is a 30-day fermentation in sealed container under anaerobic conditions. This takes place in sealed containers and will prevent attraction to Argentine ants.
- The second step is further 30-day process in aerobic conditions using a worm farm. The worm bin must be covered with lid or cover / shade cloth. The worm farm must be equipped with drainage and catchment of the worm tea (e.g an old bath / container can be used)
- All food scraps can be thrown into fermentation container; once full it is sealed for 30 days. The fermented
  waste is then buried in the worm farm. The composting process will take a further 30 days and can then be
  used.
- Each dwelling can be provided with 2x25liter bokashi digesters (one for active use; one for 30-day fermentation)
- Restaurant and agricultural area can be provided with 2x250 liter digesters (one for active use; one for 30 day fermentation)
- Dwellings worm farm recommended 1 kg initial input of Eisenia foetida, thereafter the red wrigglers will sustain themselves as per fermented waste input
- Restaurant and agricultural area recommended 10 kg, thereafter the red wrigglers will sustain themselves
  as per fermented waste input

#### Note:

Bokashi tea is the liquid that drains from the sealed fermentation process in the bokashi container, rich in microorganisms.

Worm tea is the liquid produced by the worms during the composting process, which is rich in nutrients.

- The fermented tea, at a 1: 10 ratio can be added to all drains and toilets on a monthly basis to assist with overall sewage management.
- The worm tea can be used as a natural fertilizer
- The compost can be used in soft landscaping at dwellings / agricultural areas
- Required Bokashi and digesters and red wrigglers and are available from local suppliers.

#### **Hazardous Waste & Fuel Management**

- All generators must be fitted with drip trays to catch fuel or oil leaks.
- Spill kits must be accessible near all machinery and generator areas.
- A designated hazardous waste bin must be provided for the safe containment of any contaminated materials (e.g., fuel-soaked rags, used oil).

#### Concrete, cement, plastering, and painting:

- Mixing areas be clearly defined on the site and must be surrounded by an impermeable material (i.e. create
  a temporary coffer dam with sandbags and thick plastic sheeting) to prevent any runoff and absorption into
  the surrounding soils.
- The designated mixing areas should be limited to areas that will become future hard surfaces on the site. No
  concrete and cement mixing is allowed in areas outside of the proposed hardened surfaces of the camping
  block.

• Cleaning of cement, plastering & paint equipment must be done into a designated, bunded, & lined slurry sump or container to avoid contaminating the environment.

#### Sewage

- Ensure tanks are properly sealed and maintained to prevent leakage or groundwater contamination.
- Conservancy tanks are preferred over septic tanks and soakaways as these can be pumped out and desludged (every 2–5 years depending on use).
- If conservancy tanks not feasible, consider adding microbes (example bokashi tea diluted 1 part to 10 parts water) to sewage systems to accelerate the breakdown process.
- Use water-saving fixtures in buildings to reduce load on the system.
- Consider reuse of grey water (e.g. sinks, showers, laundry water) where feasible (e.g. for irrigation).
- Consider composting toilets or biogas digesters. Local suppliers (e.g.Biogas SA) provide affordable solutions for domestic and community-based biogas systems.
- Avoid future installations on steep slopes or highly permeable soils near watercourses; ; tanks should be
  located downslope and outside of any 1:100 floodline, at the maximum feasible distance from wetlands and
  watercourse.
- Include relevant water uses in the water use license application for dwellings and accompanying sewage treatment (within 100 m of watercourse / 500 m wetland) Section 21 c and i

#### 15. Rehabilitation:

#### 15.1 Restrictions

- No kikuyu grass may be planted. This is a listed and recognised invasive species.
- Protected trees may not be impacted on by rehabilitation activities

## 15.2 Structures and dwellings:

- Dwelling disturbance and invaded areas between the dwellings should be rehabilitated and ongoing alien clearing effort should be prioritised in these areas.
- Initial graminoid ground covers that could be considered include members of the families Restionaceae, Cyperaceae, and Poaceae.
- Examples of species that could be planted includes Aristida diffusa, Aristida junciformis, Cynodon dactylon,
   Ehrharta erecta, Elegia tectorum, Eragrostis capensis, Eragrostis curvula, Ficinia truncata (near the watercourse),
   Ischyrolepis subverticillata, Pentameris macrantha, Pentameris pallida, Restio festuciformis, Restio quadratus,
   Schoenoxiphium lanceum (riparian zone), Stipa dregeana, Tetraria bromoides, Thamnochortus insignis, and,
   Themeda triandra.

## 15.3Roads and river crossings

- Active restoration will need to take place at the rehabilitated road and associated river crossing in order to
  minimise further erosion and sediment transport. Introduce hardy, fast-growing native ground cover plants that
  are well-adapted to local conditions.
  - Grasses that can be considered include *Themeda triandra, Eragrostis capensis, Eragrostis curvula,* and *Stenotaphrum secundatum. Osteospermum moniliferum* (Bietou), *Diospyros dichrophylla, Searsia glauca, Pterocelastrus tricuspidatus* (Candlewood), *Grewia occidentalis* (Crossberry), *Carissa bispinosa,* and *Euclea racemosa* (Gwarrie) are also appropriate for this illegal road section.
- Passive regeneration together with active planting of the riparian zone must be encouraged. Passive regeneration allows indigenous species to naturally re-seed and re-establish along the banks. This process must

- be encouraged wherever possible and vehicle access must be restricted to use of the road only so as to avoid disturbance to new seedlings. Recommended plant species for active planting provided in Table 4
- With implementation of the recommended OS3, consider sourcing indigenous plants belonging to Gouritz
  thicket, Garden Route Granite fynbos and Swellednam silcrete fynbos from nearby authroised developments in
  the Mossel Bay Municipality to reduce costs and also ensure these plants are transplanted in a similar vegetation
  type with similar conditions. Ensure all required permits are in palce from cape Nature and DFFE for search,
  removal and relocation of sesntive plant species / protected trees.

#### 15.4**OGF1 dam**

Removal of Sediment Previously Excavated from the Riverbed

- An excavator may be used to remove sediment from river;
- The sediment must be removed from the watercourse as soon as possible and stockpiled well outside of the floodline for use in rehabilitation of the river channel once the dam wall has been removed. The stockpile must be covered and protected from rainfall and erosion to prevent loss of material;
- Care must be taken not to widen or deepen the channel during the removal of the dumped material. The depth of the bed and width of the channel must be continuous with the channel further downstream.

#### OGF1 dam - Removal of Dam Wall

- An excavator may be used to remove the dam wall;
- Dam removal must take place during the dry season (generally June to July or December to January) so as to minimise the potential of flooding whilst working in the watercourse. Weather forecasts must be consulted with aim of the ensuring a minimum 3-day window of low (< 10 %) percent likelihood of rainfall.</li>
- The water level must be drawn down as much as possible prior to removal of the dam wall. A single opening must be made in the wall to allow water to drain out in a controlled manner.
- Once the water level has receded, the gabion wall can be removed using common excavation methods and
  earth-moving equipment. The wall must be removed in a systematic fashion, with the excavator operating
  from the surface of the existing road crossing, moving backwards along the road as material is removed from
  the watercourse.
- All gabion and road materials, including rock, wire baskets and concrete/cement structures MUST be
  removed from the site and disposed of at an appropriate waste disposal facility. No road materials or gabion
  baskets may be dumped in the watercourse or stockpiled adjacent to the watercourse.
- Removal of the dam wall must be overseen by and appropriately qualified Environmental Control Officer (ECO) or an aquatic ecologist.

#### OGF1 dam - Replacement and Stabilisation of Soil

- The channel must be reshaped such that the embankment slopes gently towards the channel and is consistent with the natural channel of the river.
- Stockpiled sediment can be used to reshape the banks
- Precautions
- Construction vehicle parking and equipment stores must be located at least 100 m from the demarcated area to prevent fuel and material spills from entering the watercourse;
- Access by vehicles must be in and out on one road only to reduce the area of disturbance;
- The wetland areas upstream of the dam must be demarcated as 'No-go Areas' for people and vehicles.
- The banks must be reshaped and sloped to the natural site contours, avoiding the creation of ditches and cuts which channel water flow and cause erosion. The shape/contours/dimensions of the banks must be continuous with the undisturbed section of wetland upstream of the dam.

- Reshaping of the channel must take place during the dry season (generally June to July or December to
  January) so as to minimise the potential of flooding whilst working in the watercourse. Weather forecasts
  must be consulted with aim of the ensuring a minimum 3-day window of low (< 10 %) percent likelihood of
  rainfall</li>
- The final reshaped channel must be independently assessed by an ECO or aquatic ecologist and signed off as complete.

#### OGF1 dam - Revegetation

- Seed the slopes and stream bed with an indigenous fynbos grass mix and cover with a light mulch;
- Nail in overlapping soil saver matting to protect the soil (see Appendix 5);
- Revegetated slopes must be actively monitored to ensure a dense cover of > 80% of grass. Gaps should be actively re-seeded;
- A combination of active and passive revegetation must take place in the 10 m buffer zone: Active = planting recommended indigenous species, and Passive = not disturbing indigenous plants that naturally germinate (See Table 4 for suitable plant species);
- Alien vegetation must be actively removed before it becomes established when it can either be hand-pulled or removed with a tree popper. NO heavy machinery can be used for the purpose of alien removal;
- Eroded areas of the steep banks must be refilled with topsoil, reseeded with grass mix, covered with a light mulch and protected with soil saver mats;
- With implementation of the recommended OS3, consider sourcing indigenous plants belonging to Gouritz
  thicket, Garden Route Granite fynbos and Swellednam silcrete fynbos from nearby authroised developments
  in the Mossel Bay Municipality to reduce costs and also ensure these plants are transplanted in a similar
  vegetation type with similar conditions. Ensure all required permits are in palce from cape Nature and DFFE
  for search, removal and relocation of sesnitive plant species / protected trees.

## 15.5Area 4-16 and drainage lines

- Ongoing removal of alien invasive species (AIS) must be implemented within all drainage line areas across the property.
- Area 4-16 (0.89ha) is recommended to be rehabilitated with thicket / riverine/ wetland vegetation. Modify dammed area to allow for drainage.
- Hydrological Connectivity: A proper hydrological flow path (e.g. culvert or low water crossing) must be
  installed at the road crossing. This road is anticipated to be retained long-term due to its role in accessing
  recommended agricultural areas 4-15 and 4-17.
- Alien Invasive Species Management:
- Buffer Zones: A minimum buffer of 10 meters of indigenous vegetation (Table 4) must be maintained through active (planting of vegetation) and passive (existing indigenous vegetation left intact) along all drainage lines. These buffer zones must remain undisturbed and may not be used for any activities, including agriculture, except for:
  - o Authorised road crossings
  - The existing dwelling located within 32 meters
  - AIS clearing activities
  - o The in-stream dam
  - Sustainable harvesting (5-year plan)
- With implementation of the recommended OS3, consider sourcing indigenous plants belonging to Gouritz thicket, Garden Route Granite fynbos and Swellednam silcrete fynbos from nearby authroised developments in the Mossel Bay Municipality to reduce costs and also ensure these plants are transplanted in a similar

vegetation type with similar conditions. Ensure all required permits are in palce from cape Nature and DFFE for search, removal and relocation of sesntive plant species / protected trees.

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Table 4: Flora species identified for active rehabilitation of disturbed / AIS cleared areas

Species Name	Common Name	Planting density guide / 75 m2
Trees	·	
Ekebergia capensis	Cape Ash	1
Halleria lucida	Tree fuchsia	3
Osteospermum moniliferum	Bitou	3
Searsia undulata	Kuni-bush	1
Protea neriifolia	Pink ice	1
Buddleja salviifolia	Sagewood	1
Tarchonanthus littoralis	Coastal camphorbush	2
Virgilia oroboides	Keurboom	1
Shrubs	·	Per 75m2
Agathosma recurvifolia	Boegoe	2
Cyclopia subternata	Vleitee	5
Helichrysum petiolare	Licorice plant	5
Phylica ericoides	Hardeblaar	2
Psoralea axillaris	Violet-flash fountainbush	1
Watsonia angusta	Narrow watsonia	2
Watsonia fourcadei	Forked watsonia	2
Watsonia pillansii	Orange watsonia	2
Selago corymbosa	Stiff bitterbush	2
Otholobium acuminatum	Longsepal dottypea	1
Pelargonium cordifolium	Heartleaf storksbill	3
Grass		Per m2
Themeda triandra	Red grass	2
Eragrostis capensis	Heart-seed love grass	2
Eragrostis curvula	Weeping love grass	2
Pennisetum macrourum	Riverbed grass	2

## 6. Monitoring Plan

## Monitoring at rehabilitated OGF1 dam site

Monitoring should also take place by the land-owner following heavy rainfall to identify and proactively address erosion before it can progress too severely;

Monitoring of the site is recommended to ensure that rehabilitation efforts are successful and that problematic areas are attended to effectively and pro-actively.

Revegetation of the buffer and previously excavated area must be monitored 6-monthly by an ECO or Aquatic Ecologist until such time that revegetation of the banks is considered satisfactory;

#### Roads and crossings

Regular monitoring of tracks must be undertaken to assess signs of degradation.

## Revegetation

- Ensure there is adequate vegetative cover to prevent erosion in riparian buffer zones, especially during months when higher rainfall is expected;
- Where temporary vegetation has been planted, follow up to determine whether indigenous vegetation is
  establishing, and begin active revegetation with indigenous plants if necessary. This should be done
  following one growing season; and

- Fixed point photography of sites where revegetation has been implemented should be used to track ground cover
- With implementation of the recommended OS3, consider sourcing indigenous plants belonging to Gouritz
  thicket, Garden Route Granite fynbos and Swellednam silcrete fynbos from nearby authroised developments
  in the Mossel Bay Municipality to reduce costs and also ensure these plants are transplanted in a similar
  vegetation type with similar conditions. Ensure all required permits are in palce from cape Nature and DFFE
  for search, removal and relocation of sesntive plant species / protected trees.

#### Alien clearing

- In order to maintain the integrity of the channel and riparian habitat it is important that alien invasive plant species are not allowed to re-establish along the channel:
- Routine inspection of the channel banks must take place (every six months) to do follow-up control of the
  establishment of alien invasive plant species. Frequent inspection should allow alien plants species to be
  removed by hand pulling; and
- In the event that hand-pulling is not possible, the cut and stump method is recommended.

#### River Channel

- Subsequent to the reinstatement of the channel, frequent spot checks should be carried out after rainfall events to ensure that the stability of the channel bed and bank is such that erosion is prevented;
- Regular maintenance such as removal of debris in the channel should be carried out to ensure there is no
  flow blockage or constriction which could cause erosion or washout. Debris removal should be carried out by
  hand to prevent destabilization of the channel; and
- Any bank sections which have become exposed and appear vulnerable to erosion should be immediately protected in an appropriate manner so as to prevent or arrest the erosive process before further damage to the channel can occur.
- Long-term monitoring plan for the kikuyu grass at the jeep track along the Ruiterbos River to ensure that it doesn't invade into the Ruiterbos River drainage line.

#### Flow Monitoring:

- Pumps used to abstract water from the dam must be fitted with calibrated flow meters with the purpose of ensuring that annual lawful water allocations are not exceeded, and abstraction volumes must be submitted to BOCMA bi-annually to ensure lawful water use.
- Biomonitoring Plan: An aquatic biomonitoring programme, including at minimum SASS and IHI (Index of
  Habitat Integrity) assessments, must be implemented. This plan should monitor whether the dam's
  environmental flow releases are maintaining downstream aquatic ecosystem integrity at the Recommended
  Ecological Category (REC). The specific frequency, timing, and monitoring indicators must be informed by the
  EWR determination.

#### AIS and rehabilitation

• Annual audit recommended to determine level of rehabilitation, extent of AIS and population levels of *Agathosma recurvifolia* and *Cyclopia subternata* to inform sustainable harvesting.

## 7. EMP Targets

The following is a summary checklist that can be used to ensure compliance to mitigation measures for planning and construction phase:

#### **Targets:**

- ✓ EM file in place and consist of EA, EMPr, WULA, soil permit, required Cape Nature permits, and protected trees permits
- ✓ Detailed dam design
- ✓ Required construction method statements in place
- ✓ Search and rescue carried out as required
- ✓ Waste management measures in place
- ✓ Site control officer for daily inspections
- ✓ ECO for monthly audits
- ✓ Specialist input as required
- ✓ Necessary training provided as per scope of work and records kept i.e., toolbox talks
- ✓ No disturbance of indigenous plants outside development footprint
- ✓ No AIS in construction footprint
- ✓ No disturbance to heritage artefacts
- ✓ No disturbance to fauna

#### **Aspect: Operational Activities**

- ✓ EM file in place and consist of EA, EMPr, WULA, soil permit, required Cape Nature permits and protected trees permits
- ✓ AIS clearing carried out and indigenous revegetation carried out; annual audit
- ✓ Rehabilitation implemented as per EMPr; monthly audits (OGF2)
- ✓ Game management plan in place in line with EMPr
- ✓ Fire management plan in place in line with EMPr Fire prevention and response measures in place / fireproof hedge / firebreak in place as required / controlled burns
- ✓ Operations and monitoring of dam in line with DWS requirements
- ✓ No feeding of wildlife
- ✓ Rainwater tanks
- ✓ Solar Panels
- ✓ Effective Waste management measures in place
- ✓ No additional paths / tracks / roads created

## Project Apects to be completed by construction team / maintenance team

Activity:	Description of activity (i.e. AIS clearing, construction of road, maintenance activity)			
Responsible person:				
	Nature / Description		uired	Notes
Aspect			×	
Scope of work	Description of scope of work and accompanying method statement / s	<b>√</b>		
Site office	Required? Location if required?			
Designs / Plans completed	As required for scope of work			
Environmental Training	Environmental training required (i.e. excavations – archaeology; ongoing – litter; AIS)			
Health and safety	As required – HS File, first aid etc.			
Workforce	Number of workers required?			

Activity:	Description of activity (i.e. AIS clearing, construction of	of roac	l, main	tenance activity)
Responsible				
person:				
<u> </u>		Rea	uired	Notes
Aspect	Nature / Description	<b>✓</b>	*	
	Required environmental management training (i.e. waste, soil			
	management etc)			
	Community engaged with to source local labour			
Transport and traffic	Transport required for site workers?			
Transport and traffic	Access and parking requirements			
	Area to be cleared			
Site clearing	Permits on hand; Plants removed and transplanted elsewhere in resort			
	No disturbance to vegetation outside footprint	<b>√</b>		
Vegetation .	Remove alien invasive from footprint as required	<b>✓</b>		
management	Pegs / screening material for designating footprint			
	Top 300 mm soil with indigenous vegetation intact			
	Stockpile separately			
Topsoil management	Compost separately as mulch elsewhere in landscaping / public			
	open space area			
	Area and depth to be excavated			
	Volume of material to be excavated per component			
Earthworks and	Duration of earthworks component			
subsoil management,	Where will excavated material be stored on site; subsoils			
erosion control	covered; Rocks for landscaping; excess for landfill;			
	Shade cloths / water cart – dust control			
	Nature of required materials and equipment			
Building material and	Storage requirements / laydown areas for materials / equipment			
equipment	Hazardous materials / substances – sealed containers, bunded			
	area, non-permeable flooring, secure, equipped with roof.			
	Ablution facilities – Required? Number? Service Provider? Record of service to be kept	<b>√</b>		
	General waste bins			
	Drip trays, cement mixing trays, plastic liners,			
	Spill kits, hazardous waste bins			
Waste management	Skip			
	Service providers			
	Construction rubble – designated area / skip as required			
	General waste – General waste bins with lids and labelled /			
	storage area			
	Hazardous waste – drip trays / spill kits / storage area			
Drinking water and	Quantity required? Lunch area provided? Source of drinking			
lunch area	water?			
Existing structures	Location of existing structures / infrastructures that may be in construction footprint			
Working hours	Working hours – no Sundays, no public holidays, no night time.		+	

## 8. COMPLIANCE WITH THE EMPR

## 6.1 Monitoring and Compliance

The monitoring and compliance of the development should take place as follows:

- The ECO has the authority to instruct the Applicant to cease a particular operation causing or liable to cause significant environmental damage, and issue fines or penalties for noncompliance of the Environmental Management Programme/ EMPr.
- During construction phase an Environmental Control Officer (ECO) must audit the site and compile an audit report on a monthly basis until rehabilitation is successful.
- During operational phase, the site must be audited annually to determine level of AIS and rehabilitation
- The holder of the environmental authorisation (the Applicant) is responsible to ensure that an environmental audit report is submitted to the Department of Environmental Affairs and Development Planning (DEA&DP) as per the timeframes stipulated in the Environmental Authorisation (EA).

## **6.2 Auditing Process**

The terms of reference for the audits must comprise the following:

- Develop a checklist against which the criteria can be referenced during the audit.
- During the audit process, key individuals involved with the management of the project are to be given the opportunity to comment on issues being audited and will be invited to accompany the auditor during the site inspection.
- Compile an audit report on the implementation of the EMPr and compliance to the Environmental Authorisation and submit this report to the competent authority (DEA&DP).

Compliance ratings against which the listed criteria are assessed are as follows:

Symbol	Rating	Interpretation
Υ	Yes	Evidence of compliance
P	Partial	Evidence of partial compliance
N	No	Evidence of non-compliance
NR	Not Relevant	The condition or commitment is not relevant at this stage of the development or it is inappropriate
NA	Not Audited	Not audited

## **6.3 Non-Compliance**

#### **Definition**

The non-compliance is defined as, and will be issued for:

 Any deviation by the Applicant from the environmental conditions and requirements as set out in the EA and EMPr, or;

- Any contravention by the Applicant of environmental legislation, or;
- Any unforeseen environmental impact resulting from direct or indirect actions or activities on site that would be considered as a significant impact. Significance will be determined by the Environmental Control Officer (ECO) but will be informed by geographic extent, duration, lasting effects of the impact and extent of remediation to the impact.

#### Types of non-compliances issued

Two types of non-compliances may be issued:

#### A. Stop Works Non-Compliance

Stop Works Non-Compliance will require that all works as described in the non-compliance will stop immediately and may only continue on a formal written permission from the ECO.

Stop Works Non-Compliance will be issued under the following conditions:

- Total disregard by the Applicant to the environmental conditions and requirements listed in the EA and EMPr;
- An activity that if left unattended will escalate the degree, severity or extent of the environmental impact.

#### B. General Non-Compliance

A general non-compliance will allow work and activity by the receiving party to continue while the corrective action takes place.

## 6.4 Issuing a Non-Compliance

Non-compliance may be issued to:

- The Applicant
- Any representative of the Applicant

## 6.5 Process of Issuing Non-Compliance

The appointed Environmental Control Officer (ECO) may issue a formal non-compliance to the Applicant. A copy of the non-compliance issued will be placed in the EMPr file. The Applicant will be responsible for returning a formally signed off corrective action (as per template) to the ECO to be placed in the EMPr file. The ECO will be required to sign-off on the corrective action, indicating that it has been completed within the timeframes and to the satisfaction of the ECO.

In the event of damage being caused, the contractor will be responsible for the cost of cleanup, repair and / or rehabilitation as necessary, as well as being liable for the fine. Where there is erosion damage, pollution to the environment, or contravention of the no-go policy, the contractor is required to reinstate the conditions to normal as determined by the ECO. Spot fines up to a maximum value of R10 000 per offence can be instituted at the discretion of the ECO for any breach or non-compliance in terms of the EMPr. Fines issued will increase exponentially for repeat offences.

## 6.6 Failure to complete corrective actions

In the event that the Applicant fails or refuses to complete the corrective action, either at all or within the allocated timeframe, the ECO shall,

Inform DEA&DP in writing that a condition of approval for the project is not being met.

The DEA&DP office is responsible for resolving the impasse with the Applicant.

The Applicant is deemed not to have complied with the EA and EMPr if:

- Within the boundaries of the site and site extensions there is evidence of contravention of clauses;
- Environmental damage occurs due to negligence; inappropriate actions taken by the Applicant or any of his staff.

On receiving a notice of non-compliance the Applicant is required to swiftly address the issue/s taking all corrective actions required to rectify the situation. Penalties will be applied for non-compliant situations. Penalties/fines are advocated to ensure corrective measures are successfully undertaken and the necessary standard of rehabilitation is achieved.

The penalty associated with a chemical spill is not a set amount but will depend on the nature and extent of the spill; the cost of any soil and /or groundwater monitoring and any soil and /or groundwater remediation required by authorities will be to the Applicant's account.

The imposition of such a penalties / fines shall not preclude the relevant competent authority from applying an additional penalty in accordance with statutory powers.

Failure to redress the cause shall be reported to the relevant authority for them to deal with the transgression as deemed fit.

## 6.7 Unlawful Activity/ies

NEMA and its Regulations entitle environmental authorities to administer a fine not exceeding R 5 million or 10 years imprisonment and/or a fine and imprisonment for a person guilty of an unlawful activity. The Act makes allowance for the rectification of unlawful activity and may charge up to R1 million administration fees over and above the remediation costs.

NEMA makes provision for damages to be awarded by the courts where loss or damage has occurred as a result of a contravention of other environmental statutes. Importantly, NEMA provides for the liability of conviction of employees, managers, agents and directors for any offences resulting from the failure to take all the reasonable steps that were necessary under the circumstances to prevent the commission of an offence.

#### 9. AMENDMENTS TO THE EMPr

This EMPr outlines the environmental practices and mitigation measures to be adhered to during the construction, operational phases, and rehabilitation in order to curtail and/or minimise potential negative impacts and promote sound environmental practises.

Any major issues not covered in the EMPr as submitted, will be addressed as an addendum to this EMPr, and submitted for approval. The EMPr is a living document and is subject to change from time to time in consultation with the DEA&DP. Any amendments to the EMPr will require approval from the DEA&DP.

## 10. ENFORCING THE EMPr

The holder of the Environmental Authorisation (EA) has a responsibility to ensure that all those people involved in the project are aware of and familiar with the environmental requirements for the project (this includes casual labour, etc.). The EA and EMPr shall be part of the terms of reference for all stakeholders. All senior and supervisory staff members shall familiarise themselves with the full contents of the EA and EMPr. They shall know and understand the specifications of the EA and EMPr and shall be able to assist other staff members in matters relating to the EA and EMPr.

#### **TABLE OF RESPONSIBLE PARTIES BELOW:**

Responsibility	Name of Responsible Party
Applicant	
Town Planner	
Engineer/s	
Contractor/s	
Site Environmental	
Control Officer	
External audits	
Game farm manager	
Farm manager	
Operational manager	

# 11. DRAFT STAFF / RESIDENT CONDUCT CONTROL AND INFORMATION SHEET

ALL	STAFF MUST OBEY THE FOLLOWING RULES:
1	<b>DO NOT</b> tamper with or destroy nesting sites, lairs or any other form of animal shelter.
2	DO NOT feed the native animals.
3	<b>DO NOT</b> leave the project site untidy and strewn with rubbish that will attract pests.
4	<b>DO NOT</b> bring any pets onto the construction site.
5	<b>DO NOT</b> trespass onto private properties not linked to the project.
6	<b>DO NOT</b> carry a weapon onto the project site or in the vehicles transporting workers to and from
	the site.
7	DO NOT set fires.
8	DO NOT cause any unnecessary disturbing noise
9	DO NOT drive a vehicle under the influence of alcohol.
10	DO NOT exceed the national speed limits on public roads or exceed the recommended speed
	limits in this management plan (where applicable)

11	<b>DO NOT</b> drive a vehicle that is generating excessive noise / leaking / excessive fuels (such vehicles
	must be reported and repaired as soon as possible).
12	<b>DO NOT</b> litter along the roadsides, including both public and private roads.
13	<b>DO NOT</b> remove or destroy vegetation around the site without the prior consent of the Applicant
	and Environmental Control Officer.
14	DO NOT tamper with, destroy or remove vegetation from any areas that have been fenced off
	or marked.
17	DO NOT operate critical items of mechanical equipment without having been trained and
	certified.
18	ALL employees must undergo the necessary safety training and wear the necessary protective
	clothing at all times.
19	<b>NO</b> unsocial behaviour will be permitted e.g., excessive shouting, hooting etc.
20	NO ad-hoc activities are to be undertaken e.g. fires for cooking, the use of surrounding bush as
	a toilet facility is strictly forbidden
21	<b>NO</b> trespassing on private / commercial properties adjoining the site is forbidden.
22	NO worker may be forced to do work that is potentially dangerous or for what he / she is not
	trained to do.

# **12. RESPONSIBILITIES**

The "Responsibility" column is merely a guide and does not relieve the Applicant of his responsibilities in terms of overall compliance with the EA and EMPr.

FUNCTION	RESPONSIBILITY
Applicant / Holder of EA (if attained)	<ul> <li>The Applicant is ultimately responsible for the ensuring compliance with all the requirements associated with the construction, operation, rehabilitation and decommissioning phases of the project.</li> <li>The Applicant is responsible to ensure that all necessary communication and submission of required documentation concerning this project is submitted to the relevant authorities.</li> </ul>
Contractor / s / Subcontractor/s	<ul> <li>The Contractor is required to adhere to the EMPr and is responsible to ensure that all staff appointed also adhere the EMPr.</li> <li>Ensures that all staff are made aware of the need to conduct activities in an environmentally responsible manner.</li> <li>(Contractor) On instruction by the ECO, ensures that storm/surface water controls are established.</li> <li>Ensures prompt remediation of any sewage spills.</li> <li>Stockpiles are protected from aeolian effects, stormwater effects, or being driven over by workers.</li> <li>Ensures that a "clean-site" policy is applicable at all times.</li> <li>Ensures that all complaints by residents are dealt with promptly.</li> <li>Is responsible for any contravention/s by staff or any non-compliance with the EMPr.</li> </ul>
Site ECO	<ul> <li>On site ECO is required to carry out daily requirements of the EMPr</li> <li>The sensitive vegetation, sensitive fauna and possibility of archaeological materials as well as ongoing waste, soil, and stormwater management requires an on-site ECO for this development</li> </ul>
Environmental Control Officer (ECO)	<ul> <li>An external ECO is to have access to the site at all times, for the purpose of inspections to ensure that the environmental conditions of the EMPr as well as the conditions stipulated to in the EA and the recommendations made in the EIR are being implemented and adhered to.</li> <li>The ECO to carry out monthly audits to ensure compliance with EMPR and EA (if attained) and submit the reports to project team and relevant authorities</li> <li>The need for any deviations or variations in the environmental conditions must be reported to the DEDEAT for approval prior to these being undertaken.</li> <li>The ECO must be fully cognisant with the contents of the Environmental Authorisation as well as this EMPr and any other applicable legislation</li> </ul>
Competent Authority - DEADP	<ul> <li>The Compliance Officer appointed by the Competent Authority is responsible for the ensuring that the Applicant, Contractor, and ECO are compliant with the provisions of the EA and EMPr.</li> </ul>
Cape Nature	<ul> <li>Responsible for issuing any SCC permits for fauna and smaller plants</li> </ul>
Department of Forestry	Responsibility for issuing permits for protected trees
Heritage WC	<ul> <li>Responsible for issuing of permits required for any discovered artefacts during excavation / site clearing activities</li> </ul>

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#### **ACKNOWLEDGEMENT FORM**

Record of signatures providing acknowledgment of being aware of and committed to complying with the contents of this Environmental Management Programme (EMPr), which relates to the environmental mitigation measures for the project outlined below, and the environmental conditions contained in all other contract documents.

#### **PROJECT NAME:**

ACTIVITIES CARRIED OUT AND CONTINUED AND FURTHERANCE OF ACTIVITIES ON FARM PORTIONS 420 AND 373, OUTENIQUA GAME FARM, MOSSEL BAY MUNICIPALITY, WESTERN CAPE 24G Consultation: 14/2/4/1/D6/28/0004/20

APPLICANT:
Signed: Date:
CONTRACTOR:
Signed: Date:
SITE ENVIRONMENTAL CONTROL OFFICER
Signed: Date:
EXTERNAL ENVIRONMENTAL CONTROL OFFICER
Signed: Date:
MANAGEMENT STAFF
Signed: Date:

# Annexure 1 – CV of EAP

## **Claire De Jongh**

#### **Curriculum Vitae**

**Career History** 

**Current** Environmental Assessment Practitioner

**Current Location** Port Elizabeth, South Africa

Date of birth 13 July 1983

Year of Birth 1983

**Specialisation** Environmental Management and compliance

**Nationality** South African

Years of experience 17 years

**HDI status and gender** South African Female

Languages English (Excellent – Reading, Writing, Speaking, Presenting)

Afrikaans (Fair - Reading, Writing, Speaking)

Contact Details +27846074743 / clairejarvis@hotmail.co.za

Career Profile Claire's career in the environmental field spans 17 years. Her work over the years

has included:

Project coordination, authority liaison, specialist team management

 Application for Environmental authorisations, Waste management licences, Water use licence, Coastal Water Discharge (as required) and compilation of Basic Assessment Reports and Scoping and environmental impact Reports and Environmental management programmes reports; Rehabilitation strategies and implementation; Environmental training

Compliance audits to conditions of authorisation and ECO related work;
 Environmental monitoring, Review of management plans, methods statements,
 procedures

 Environmental management systems; Aspect / impact registers and implementation of environmental management systems in line with ISO14001

 Environmental awareness education; Management, coordination and implementation of environmental and social development projects

• Independent and Freelance Environmental Assessment Practitioner (current)

 CEN Integrated Management Unit | February 2015 to May 2025 | Senior Environmental Consultant (Full time)

Ethical Exchange sustainability Services (Pty) Ltd | June 2011 to January 2015 |
 Environmental Consultant

• BSc Honours (Environmental Monitoring and Modelling) | 2009 to 2011

 WESSA (BushPigs Outdoor Environmental Education Centre) | 2007 to 2009 | Environmental Education Programme Coordinator

Green Gain Consulting 2005 to 2007 | Environmental Consultant: EMS; Training

Education and Courses

BSc (Hons) Environmental Monitoring and Modelling, 2012.

BSc Environmental Management: Zoology Stream, 2007.

IEMA Accredited Environmental Auditor Training Course: Aspects International, 2011.

Environmental Awareness and Legal Liability Course, 2006 (2 days). Field Guiding Association of South Africa (FGASA) Level 1.

ICDL, 2004, (Microsoft word, excel, access, PowerPoint, outlook).

**Professional Affiliations** EAPASA Registered EAP (Number 2021/3519)

SACNASP: Certificated Natural Scientist (Registration 115390).

Member of the International Association for Impact Assessment (IAIA). Member of the Field Guiding Association of South Africa (FGASA).

Main Sectors of Expertise Waste water treatment, Residential, Eco-tourism, Agriculture

Areas Worked Predominantly Eastern and Western Cape; Throughout South Africa.

- NEMA: Basic Assessment and EMP for housing project on behalf of developer, Erf 168, Walker Driver, Port Elizabeth (2018 2020)
- NEMA Section 24G Application Oyster Bay Lodge: on behalf of landowner, Eastern Cape (2018 2020)
- NEMA Basic Assessment and EMP for residential development, Erf 3783, Summerstrand:, Port Elizabeth (2018 2019)
- NEMA Basic assessment, Kwandwe Staff Village: Kwandwe, Makana Municipality, Eastern Cape (2017 2018)
- Feasibility study: Screening assessment of properties on behalf of NMBM (2016)
- Wells Estate Conservancy Tanks: Basic Assessment process for Expansion project on behalf of NMBM (2016)
- Driftsands Waste Water Treatment Works: Integrated Environmental and Waste Management License; Coastal Water Discharge Permit; Water Use License Application for Expansion project on behalf of NMBM (2016 - 2017)
- Sundays River Citrus Corporation: Basic Assessment process for Expansion projects at Summerville and Hermitage on behalf of SRCC (2015 – 2017)
- Walmer Cosmo/ Erf 1953: Basic Assessment process for integrated residential development on behalf of Privivox cc, Eastern Cape (2015 - 2016)
- Milkwood Gardens / Erf 1953: Amendment Application for change of ownership; update construction and environmental management programmes on behalf of Own Haven (2015 – 2017)
- Sardinia Bay: Basic Assessment process for public access facilities at Sardinia Bay on behalf of NMBM, Eastern Cape (2015 2016)
- Sardinia Bay Public Access Facilities: Amendment Application for change of site (2016 current)
- Bayethe Luxury tents: Basic Assessment Process on behalf of Bayethe Lodge, Eastern Cape (2015 2016)
- Bayethe: NEMA 24G rectification for luxury tents on behalf of Bayethe Lodge, Eastern Cape (2015 2017)
- Cascades Iron Ore Mine: EIA process on behalf of Mkhombi Mining, Mpumalanga (2014).
- Zuurberg Road Upgrade: Basic Assessment process on behalf of the Department of Rural Development and Land Reform, Eastern Cape (2014).
- New Largo Colliery: EIA process, state of the environment report, closure and rehabilitation plan and waste management license on behalf of Anglo American Inyosi Coal, Mpumalanga (2011 to 2015).
- Mobile Water Treatment Plant: Waste management license for a mobile water treatment plant to supply water to the Phola-Kusile Coal Conveyor, on behalf of Anglo American Inyosi Coal, Mpumalanga I (2011 to 2015).
- Monitoring Weirs: Basic assessment process and Environmental Management Programme for monitoring weirs as part of reserve determination required by DWA, for Anglo American Inyosi Coal, Mpumalanga (2012 to 2014).
- Phola-Kusile Coal Conveyor: Environmental impact assessment and environmental management programme on behalf of Anglo American Inyosi Coal, Mpumalanga (2011 to 2014).
- St Albans: Public Participation Process carried out on behalf of Department of Public Works, Eastern Cape (2014).
- Grootegeluk Mine Backfill Conveyor System: Environmental impact assessment and EMP amendment, on behalf of Exxaro Coal, Limpopo (2011).

#### ECO, Monitoring, Auditing Environmental Management Systems

- Addo citrus Eb en Vloed Farm 171, ECO for construction phase (May 2024)
- · Kingsway Development, Gamtoos River, Compliance audit to ROD (April 2024 to current)
- Expansion Fuel storage facilities, Motherwell: ECO for construction phase (February 2024 to current)
- ECO and Compliance audit for non-compliant start of business development on erf 4256, Fairview; ongoing ECO for start of construction phase (February 2024 to current)
- Upgrading of Clarkson WWTW: ECO for construction phase (2023 current)
- Addo Ecolodge: ECO for construction phase (2023 current)
- Upgrading of Pumpstations, Motherwell and Stanford, NMBM: ECO for construction phase (2022 2024)
- St Francis Bay Residential Development, Kouga Local Municipality: ECO for construction phase (2022 current)
- The Edge Hospital, NMBM: ECO for construction phase (2021 2022)
- River Oaks Residential Development, NMBM: ECO for construction phase (2021 2023)
- Coegakop Wellfield, NMBM: ECO for construction phase (2021 current)
- Erf 3783, Summerstrand: ECO for construction phase (2019 current)
- Sardinia Bay Public Access Facilities: ECO for construction of parking area (2018)
- Sardinia Bay Public Access Facilities: ECO for demolition of structures within 100m of HWM (2016 2017)
- Coega Manganese Terminal Air Quality Monitoring: Coordination of PM10, PM2.5 and dustfall baseline monitoring for the proposed Manganese Terminal at Coega, Eastern Cape (2013 2015).
- Tharisa Mine: External Compliance audit in terms of WUL and EA, North-West (2013).

#### **Professional Competency Statement:**

Claire's career in the environmental consulting field spans 17 years. Claire has been involved in a number of environmental impact assessment projects. Her roles have included being the Environmental Assessment Practitioner (EAP), with responsibilities including compilation of regulated EIA's (i.e. scoping reports, EIA reports, Basic assessments, and Environmental Management Programme reports), undertaking environmental assessments, carrying out the legislated public participation process, compiling fauna screening reports, and incorporating specialists into the EIA team. Claire has been involved in environmental compliance audits and has acted as Environmental control officer and compiled the required audit protocols and audit reports. Claire has compiled environmental management systems compliant with ISO14001.

Claire has worked extensively throughout South Africa, with majority of work being in the Eastern and Western Cape provinces. Claire's strengths lie with understanding and application of environmental legislation, data collection and collation, research, compilation of reports, accuracy, effective communication, and effective time management.

## **List of Experience:**

#### **Environmental Impact Assessments, EMPr's, Water Use license applications**

- NEMA application: Upgrading of Woodlands WWTW (2025 current)
- NEMA application: Expansion of citrus, Tregaron Farming, Sundays River Valley (2025 current)
- NEMA application: Proposed residential development, Albertinia, Western Cape (2025 current)
- NEMA application: Proposed WWTW, Umzamwethu. Oyster Bay WWTW, KKLM and Zutari, 2025 (2025 current)
- Screening of Kwanomzamo WWTW, KKLM and Zutari (2025 current)
- Revision of OEMPr: Addo Lodge, Mantis (2025)
- NEMA Section 24G application: Cape St Francis, Soundprops cc (2025 current)
- NEMA Section 24G EA application -Zandhoogte light industrial, Western Cape (2024 current)
- NEMA Section 24G EA application -Outeniqua Game Farm, Western Cape (2024 current)
- Elliotdale WWTW: Integrated EA and WML and EMP for Elliotdale WWTW and upgrading of sewage infrastructure (2024 current)
- EMPR Kingsway resort, 2024
- EMPR Fairview, Erf 4256, 2024
- NEMA Section 24G EA application illegal pumping activities, Sundays River (2023 to current)
- NEMA application: Residential development, erf 2074, Plettenberg Bay (2024 2025)
- NEMA application: Residential development, erf 7614, Knysna (2024 2025)
- NEMA: Expansion of Residential 1 dwelling, erf 1220, St Francis Bay (2024 2025)
- NEMA application Maintenance Management Plan, Jeffreys Bay coastal area on behalf of Kouga LM (2023 2024)
- WULA Process for Addo Eco lodge, Addo, Eastern Cape (2023 2024)
- Estuary management plan, review; Seekoei Estuary Management, 2024
- Maintenance management plan and DWS General Authorisation for upgrade of Bay Dunes Sewer Pump Station, Mossel Bay on behalf Of Mossel Bay Municipality, Western Cape (October 2023 – February 2024)
- NEMA: Fuel storage facility in Nelson Mandela Bay Municipality, Eastern Cape (2023) (project halted S24G for site required)
- NEMA: Expansion of fuel storage facility in NMBM, Eastern Cape (2023 to 2024).
- NEMA: Port Alfred Reverse Osmosis Project: 5Ml reverse Osmosis project, Ndlambe Local Municipality, Eastern Cape (2020 -2022). (project halted)
- NEMA: Addo Lodge Addo, Eastern Cape (2021 2022).
- Operational EMP for renewal of air emissions license application, Langkloof Bricks (2021)
- Construction EMP: Somerset East Powerlines: for installation of H frame poles and overhead powerlines between substation and Industrial Park (2021)
- NEMA EA and NEMWA WML: Expansion of Clarkson WWTW and upgrading of sewage infrastructure (2018 2022)
- NEMA S24 G assessment report (2018 to 2019); Coega Kamma Citrus Farm 717, Addo:
- NEMA Scoping and Environmental Impact Assessment: 150 ha citrus and irrigation on behalf of Coega Kamma Citrus (2019 2023)

- Formalchem: Land Contamination Monitoring and Assessment: Coordination of Land contamination Assessment for mothballed glue manufacturing company in Berlin, Eastern Cape (2012-13).
- Formalchem: Remediation plan and progress report prepared for DEA on behalf of client, Eastern Cape (2012-2014).
- Elitheni Coal Mine: Compilation of legal audit protocol (EMP, Water use license, waste management license, environmental authorisation), Eastern Cape (2013).
- Pikitup Roodepoort Waste Site: Site audit and report compilation, Gauteng (2009).
- Sun International: Compilation of aspects / impacts register and environmental management system for entire Sun International Group, all SA provinces (2006 2007).
- Sun International: Environmental management system training for the environmental managers, all SA provinces (2006 2007).
- Lonmin Platinum: Compilation of aspect impact register and environmental management system, North West (2006).

#### Fauna screening assessments

- Ebb en Vloed Farm 717, Addo, Eastern Cape, 2022
- Eco-Lodge and supporting facilities, Addo, Eastern Cape, 2022
- Portion 32 of Farm Goedgeloof No.745 and Erf 1382 in St Francis Bay, 2021
- Africamps, Portion 0 of Farm Hayterdale No. 406, Addo, 2019
- Clarkson Sewage Network and Waste Water Treatment Works, 2018

#### **Guidelines, Environmental Awareness, Education and Training**

- Part of team responsible for development of Albany Thicket Ecosystem Guidelines on behalf of SANBI (2017 2019)
- Part of team responsible for development of Savanna Ecosystem Guidelines on behalf of SANBI (2017 2019)
- Development of sustainable educational programmes (2009 2014).
- ZAMA: Coordination of corporate social sponsorships, Eastern Cape (2012 2013).
- Environmental Education: Coordination and development of environmental education programmes, Limpopo (2007-09).
- Richards Bay Minerals: Basic environmental awareness training at Richards bay Minerals, kwaZulu Natal (2005).
- Dairybelle: Environmental awareness training for employees of all Dairybelles, all SA provinces (2006 2007).
- Tiger Brands: Environmental awareness training for employees of all Tiger brands, all SA provinces (2006 2007).

#### Administration and engagement

- Engagement with relevant government authorities, stakeholders and clients
- Management of specialist teams
- Compilation of tenders and proposals for Environmental services
- Report writing, GIS and map compilation, Presentations and Training

## **Environmental Studies (BSc and BSc Honours)**

- Undergraduate Animal Behaviour: Behaviour of the Marsh Owl. Achieved 100 % (2003).
- Honours The abundance of the South African Lepidopteran pest organism, Busseola fusca, found on genetically modified Bt
  maize, conventional pesticide- sprayed maize, and polyculture-farmed maize, to determine the best practice farming method with
  regards to pest control. Achieved 97 % (2011)



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IAIAsa Confirmation of Membership: 2025/2026

Claire De Jongh | Membership no: 7482

## TO WHOM IT MAY CONCERN

This certificate confirms that Claire De Jongh, from Environmental consultant with membership number: 7482 is a paid-up Full Member in good standing of the International Association for Impact Assessment South Africa and has been a member of IAIAsa since Wednesday, March 1, 2023 to date.

This membership is valid from 1 March 2025 to 28 February 2026.

IAIAsa is a voluntary organisation and is not a statutory body regulating the profession. Its members are however expected to abide by the organisation's code of ethics which is available on our website.

IAIAsa is an Affiliate of IAIA, which is an international body, through a memorandum of understanding. IAIA is not responsible or liable for the actions or activities of the Affiliates. Membership of one does not imply membership of the other.

Any enquiries regarding this membership may be directed to the Secretariat at the above contact details.

**Yours Sincerely** 

Corné Niemandt President 2024/2025

President: C. Niemandt, Past President: G. Beyers, President Elect: Z. Mkhize, Secretary: B. Mthembu, Treasurer: M. Vawda. Members: H. Antonopoulos, T Hokinyane, O. Mafika, T. Mutshatshi, A. Sharkey. Branch Chairs: N. Arnott, H. Bassa, E. Kruger, L. Mashego, T. Shakwane.



# herewith certifies that Claire Elizabeth De Jongh

Registration Number: 115390

is a registered scientist

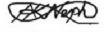
in terms of section 20(3) of the Natural Scientific Professions Act, 2003
(Act 27 of 2003)
in the following field(s) of practice (Schedule 1 of the Act)

Environmental Science (Certificated Natural Scientist)

Effective 20 July 2016

Expires 31 March 2026





Chairperson

Lesus

Chief Executive Officer





Registration No. 2021/3519

# Herewith certifies that

CLAIRE DE JONGH

is registered as an

**Environmental Assessment Practitioner** 

Registered in accordance with the prescribed criteria of Regulation 15. (1) of the Section 24H Registration Authority Regulations (Regulation No. 849, Gazette No. 40154 of 22 July 2016, of the National Environmental Management Act (NEMA), Act No. 107 of 1998, as amended).

Effective: 01 March 2025

Chairperson

Expires: 31 March 2026

Registrar





# Annexure 2 – AIS management plan

**Draft Alien Invasive Species Management Plan Outeniqua Game Farm,** 

Portions 420 and 373, Mossel Bay Municipality, Western Cape

**Prepared for: Outeniqua Game Farm cc** 

Prepared by: C De Jongh

(EAPASA: 2021/3519; SACNASP: 115390)

Date: July 2025

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# **List of Appendices**

Appendix A – Relevant legislation

# Draft Alien Invasive Species Management Plan Outeniqua Game Farm

#### 1. Overview

Outeniqua Game Farm is situated approximately 18 km from Hartenbos on Farm Portions RE/420 (489ha) and 373 (789ha) in the Mossel Bay Municipality. The site is considered to have high value in terms of biodiversity conservation due to the mountainous terrain associated with drainage areas, thicket vegetation in the valley areas and fynbos areas on the ridges. AIS is prevalent on the farm portions and requires active AIS management, with an estimated 200 ha impacted with dense AIS vegetation.

This draft AIS management plan has been prepared for the operational management of OGF and is aligned to mitigation measures provided in the draft Environmental Management Plan report and specialist recommendations included as supporting appendices in the draft section 24G application compiled as part of the required environmental authorisation application process currently being undertaken.

The following AIS were identified on the farm portions in thicket and valley areas:

- Black wattles (Acacia mearnsii)
- Plume Albizia (Paraserianthes lophantha)
- Inkweed (Phytolacca octandra)
- Jimson weed (*Datura stramonium*)
- Purpletop vervain (Verbena bonariensis)
- Kikuyu grass (Cenchrus clandestinus)

The following AIS were identified on the farm portions in fynbos and valley areas:

- Kikuyu Grass (Cenchrus clandestinus)
- Bull Thistle (Cirsium vulgare)
- Indian fig opuntia (Opuntia ficus-indica)
- Western coastal wattle (Acacia cyclops)
- Bushy needlebush (Hakea sericea)
- Bugweed (Solanum mauritianum)

Table 2 in this draft alien management plan outlines the specific management measures for each AIS plant identified during the assessment; note this list is not exhaustive and should be updated on an ongoing basis as required should additional AIS plants on the property be identified.

Delineation using aerial imagery is recommended to show the density, type and estimated area; relevant areas included in Table 2 are to be updated once delineation completed. A follow up delineation is recommended to be carried out every 18 - 24 months to map level of clearing and level of regeneration of natural riverine / thicket / fynbos vegetation.

The sections below provide guidelines to be followed for all clearing operations as required / applicable.

### 2. Guidelines for all clearing operations

## a. Mitigation measures from draft EMP for all operations as applicable:

- For all clearing operations existing roads must be used as far as possible.
- For all clearing operations ensure suitable PPE is provided
- Protected trees may not be impacted on by clearing activities
- Disturbed areas around dwellings must be cleared of invasives with the aim of rehabilitating the fynbos / thicket vegetation.
- When chemical treatments are necessary for the treatment of invasive plants, use targeted applications that minimize exposure to non-target species.
- Areas with new / small infestations should be targeted for alien clearing first, gradually moving to areas with denser & more established invasions.
- Target hilltops and upstream areas first for clearing.
- Native plant species should be used for site restoration and revegetation to outcompete invasive plants and restore ecological balance.
- New invasions to be promptly cleared on ongoing basis
- Set up collection areas for removed AIS materials areas should be level and outside floodline
- Where possible, do not stockpile removed AIS materials / debris in watercourses within floodline of the river – larger logs which are too heavy to move and too big to chip for mulch – will be burned and will follow recommended burning guidelines
- Alien invasive species must continue to be controlled along the river. Felled trees must be removed from the banks and must not be dumped in the active channel of the river.
- No burning of AIS is preferred; if AIS material is to be burnt it must not be burnt in watercourses / within floodline of the river where practically possible, larger logs which are too heavy to move and too big to chip for mulch will be burned and will follow recommended burning guidelines
- Clear smaller areas at a time;
- Where possible, shred / chip cleared material (if no seeds and material is suitable for chipping) on site
  to create mulch to spread over cleared area to prevent erosion and suppress AIS regrowth and / or
  create windrows (long, narrow piles) away from the river and position these on contour lines as part of
  stormwater and erosion management, and allow for natural decomposition
- Separate seed-bearing material from material that will be chipped and correctly dispose off site /
  alternatively cut prior to seed formation or implement biological control measures to prevent seed
  formation (seed-feeding weevils and gall-forming flies and wasps which prevent seed production by
  inducing the formation of galls instead of seed pods). This will increase the prospects for effective
  control through the combination of mechanical felling, fire, and seed reduction.
- Passive regeneration together with active planting of the riparian zone must be encouraged. Passive
  regeneration allows indigenous species to naturally re-seed and re-establish along the banks. This
  process must be encouraged wherever possible and vehicle access must be restricted to use of the road
  only so as to avoid disturbance to new seedlings. Recommended plant species for active planting
  provided in Table 3
- Combine mechanical felling, chemical control, and biological control. This measure is in place for Black wattle infestations along the valley edges where the Ruiterbos River meanders.
- Plant indigenous vegetation (such as carpobrotus or other thicket soil binding plants) on cleared sloped areas to encourage regrowth as per rehabilitation measures.
- Fire management should also include burning of dense AIS areas where burning of wattle occurs prior to seed bearing stage of wattle and during seeds formation of fynbos (i.e. winter months)
- New invasions to be promptly cleared on ongoing basis

Research shows that elephants (if enclosure permitted) have preference to Acacia mearnsii to fynbos
vegetation; plan walks through areas with newly emerging A. mearnsii in attempt to allow elephants to
remove these naturally. A. mearnsii which is cut on the property can also be used as feed for the
elephants in combination with other feed.

# b. For areas requiring burning, the following burning block guidelines must be implemented:

#### **Burning in Operational Blocks**

- Burning will be carried out in 2-hectare blocks to limit ash load and allow for manageable monitoring.
- Blocks will be selected based on accessibility, topography, and natural drainage boundaries.
- Burn timing will avoid periods of high rainfall risk or strong winds.
- Firebreaks will be maintained around burn blocks to control fire spread.

#### **Weather & River Conditions for Burning**

- Burning will only occur under the following conditions:
- No rainfall forecast within at least 3–5 days post-burn.
- Wind speeds below 15 km/h to prevent uncontrolled fire spread and ash drift.
- Moist soil conditions (not excessively dry to avoid soil sterilisation but dry enough for safe burning).
- Streamflow should be low or absent to minimize ash transport into rivers.
- Burning will not occur if river levels are high or during rainy seasons.

#### **Burning Permit & Compliance**

- A valid burning permit will be obtained from the relevant local authority before ignition.
- Burning activities will comply with all relevant environmental legislation and permit conditions.
- Trained personnel will supervise burning operations to ensure safety and environmental compliance.

#### **Erosion and ash (as applicable) Runoff Control Measures**

- Immediately post-burn, ash will be redistributed and raked thinly upslope of drainage lines to reduce concentrated runoff.
- Cut slash and logs from clearing will be strategically placed perpendicular to slope contours and along drainage edges to act as brush barriers and sediment traps.
- In sensitive or steep zones, biodegradable erosion control mats (e.g., coir or hessian mats) will be installed to retain ash and soil.
- Mulching with cut indigenous fynbos vegetation and / or Hakea slash will cover exposed soil and ash to stabilize the surface and reduce runoff.
- Erosion control features will be inspected and maintained following significant rainfall events (>10 mm).

#### **Seeding and Rehabilitation**

- Following ash redistribution and erosion control installation, indigenous grass seed mix suited to local riparian and fynbos conditions are recommended to be applied over cleared areas.
- Seeded areas will be lightly raked or covered with mulch to improve seed-soil contact and protect seeds from predation.
- In shaded or erosion-prone zones, plug planting of shade-tolerant indigenous species will be conducted.
- Mulch from nearby trimmed fynbos could be used to assist soil stabilization, moisture retention, and nutrient cycling.

#### **Monitoring and Reporting**

- All cleared and burned blocks will be GPS mapped and documented.
- Post-burn erosion control and vegetation establishment will be monitored regularly, especially after rain.
- Any erosion, ash runoff, or vegetation failure will trigger remedial action.
- Compliance reports including burn dates, weather conditions, and rehabilitation status will be submitted to authorities as required

#### Follow up

- Conduct **regular monitoring of cleared areas every 3 months** during the first-year post-burn to assess seedling emergence.
- Plan subsequent interventions (burning, mechanical removal, or herbicide) based on seedling density and site conditions.
- Burn will be required 12 18 months post first burn burn seedlings when small and before flower stage

# c. For areas requiring chemical applications the following guidelines must be followed:

- Herbicides should be applied carefully to avoid harming surrounding vegetation, ideally on a windless day.
- No aerial spraying permitted
- Target Eco-friendly options are preferred (i.e. Ecogaurd); avoid roundup where possible
- Don does not apply in areas close to watercourses and drainage channels if rain is predicted within 3 days of operation
- Do not apply herbicide in wet conditions or in wetland areas during the rainfall season when the water table is high.
- Use a spray pack with an adjustable nozzle kept as close to the plant as possible to prevent spray drift.
- If applied to kikuyu ensure that the blades at ground level also come into contact with the herbicide.

# d. For areas requiring mechanical removal the following guidelines must be followed:

- No excavators permitted within 32 meters of watercourse with exception of removing large quantities
  of ash / large logs no disturbance to soil / indigenous vegetation to be done with excavators unless for
  authorised water crossings / dams.
- Put in place erosion control measures as required
- Planting and / or seeding of vegetation representative of the local thicket / fynbos is recommended to replace removed plants (e.g thicket trees such as and fynbos plants refer to Table 3)

#### 3. Information required for clearing operations

All operations must complete *Table 1* (this can be kept in excel spreadsheet per AIS plant for easy monitoring and record keeping per clearing operation)

Table 1: Information Required per clearing operation

Required information	Description
----------------------	-------------

Date/s: Density – coverage / stems per ha (for woody species) Size of target Area (ha) Location GPS: Height (m) Growth stage – vegetative, flowering, fruiting Terrain Slope / Access: Clearing technique: Transport required: Equipment required: Method of disposal required Waste management required Labour Type – skilled / unskilled; training complete Task Rate (personal days/ha) Unit cost: Rain forecast (no burning in watercourse if rain within 3 days post burn expected) (cannot burn or spray within 32 meters of water course if rain forecast within 3 days) Wind speed (cannot spray or burn if windy) Wind directton Rehabilitation measure required following removal PPE Required Training complete and register signed Follow up monitoring required Frequency of monitoring required Frequency of monitoring required	Name of plant	
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PPE Required  Training complete and register signed  Follow up monitoring required	Rehabilitation measure required	
Training complete and register signed  Follow up monitoring required		
Follow up monitoring required	PPE Required	
	Training complete and register signed	
Frequency of monitoring required	Follow up monitoring required	
	Frequency of monitoring required	

Table 2: AIS Plants on OGF and accompanying management measures

AIS PLANT	Invasive	category	Area on farm /	Biological control	Mechanical control	Fire control	Chemical control	Management
	CARA	NEMBA	estimated ha					
(Acacia cyclops)	2	2	Area 5 –	YES	YES	YES	YES	Permit required or
Western coastal wattle / rooikrans			dwellings and	seed feeding weevils	Hand pulling	Fire can be used	after cutting apply	controlled.
			roads and	(Melanterius servulus)–	seedlings in sparse	to reduce the	herbicide to	Combination of methods
			flatter areas	introduce and reduces	stands or sensitive	seed bank in the	stumps to prevent	currently used.
			Medium to	seed production;	environments;	soil, but the fire	growth	
			dense	Midge -(Dasineura dielsi,	Cutting below	needs to be hot		
				a midge that induces galls	coppicing point.	enough to kill the		
				on the ovary, introduce	Ring barking –	seeds. Careful		
				and can control seed	removed strip of	consideration of		
				production.	bark around tree to	surrounding		
				Contact ARC and WFW	bottom.	vegetation		
				NOTE: Dasineura dielsi in	Plants are pulled	required.		
				place as part of AIS	out either by hand	Follow burning		
				management on OGF	or using a tree	block guidelines		
					popper.	and burning		
					Plants MUST be	permit in place.		
					pulled out roots			
					and all for this			
					method to be			
					effective. Minimise			
					soil disturbance to			
					reduce seed			
					germination.			
Figure 1: Acacia cyclops	1							

AIS PLANT	Invasive	category	Area on farm /	Biological control	Mechanical control	Fire control	Chemical control	Management
	CARA	NEMBA	estimated ha					
(Cenchrus clandestinus)  Kikuyu grass  Figure 2: Cenchrus clandestinus	-	-	OGF2 and watercourse crossing area 4-16	NO	NO	NO	Selective herbicide such as Focus Ultra. WC Dept Agriculture Do not apply herbicide in wet conditions or in wetland areas during winter when the water table is high.	Do not plant; remove as required Characterized by its aggressive growth habit, extensive rhizomes and stolons and ability to form dense mats that can outcompete other vegetation.
(Acacia mearnsii) Black wattles	2	2	Area 5 – dwellings and	YES Seed-feeding weevil	YES For small	YES felling, burning,	YES - Foliar spray Seedlings and	Permit required for control
Figure 3: Acacia mearnsii			roads and flatter areas confirm with aerial imagery Medium to dense	(Melanterius maculatus); Midge -(Dasineura dielsi); Cylindrobasidium torrendii is a fungus that can be applied to cut stumps and decomposes the roots, preventing regrowth. (ARC) Contact ARC and WFW NOTE: Dasineura dielsi in place as part of AIS management on OGF	infestations / ecological sensitive areas – pull out seedlings / cut down larger trees and remove root system; Frill / Cut stump Adults: Ringbarking Remove wattle mechanically in less sensitive regions Remove wattle manually in ecologically sensitive regions Restoration efforts necessary in areas where clearing has caused erosion.	sowing of seeds and mulch to suppress seedlings. Burning permit and guidelines.	saplings; Treat stump	Any flowering black wattle tree has the ability to produce millions of seeds over its life span. These seeds have the ability to remain dormant in the ground for up to 90 years. The follow up on the germination of these seeds is more important than the original eradication.  Combination of methods.

AIS PLANT	Invasive	category	Area on farm /	Biological control	Mechanical control	Fire control	Chemical control	Management
	CARA	NEMBA	estimated ha					
(Cirsium vulgare) Bull Thistle	1	16	Interspersed	NO	Yes – Hand pulling (entire root to be removed) Bag to avoid seed dispersal; safely store and dispose.	NO	YES WC Dept Agriculture	Must be controlled and removed First to colonize disturbed areas. Plant is undesirable and unpalatable to most grazing animals (SANBI) Combination of hand removal and chemical methods.
Figure 4: Cirsium vulgare	1	1b	Interspersed	NO	YES – Hand pulling	NO	YES	Combination of hand
(Datura stramonium)  Jimson weed / Downy thorn apple /  Malpitte  Figure 5: Datura stramonium			interspersed		(entire root to be removed) Bag to avoid seed dispersal; safely store and dispose.	NO	Selective / target Apply herbicides at the correct stage of plant growth, often during the seedling stage or before seed set. WC Dept Agriculture	removal and chemical methods.  The seeds and parts of this plant are poisonous to livestock and humans. Outcompetes crops and indigenous plants.  Remove and apply mulch - Mulching with organic matter can suppress growth by blocking sunlight.  Monitor and follow up

AIS PLANT	Invasive	category	Area on farm /	Biological control	Mechanical control	Fire control	Chemical control	Management
	CARA	NEMBA	estimated ha					
(Hakea sericea)	1	1a	Drainage lines –	NO	YES	YES	Expensive for	Must be controlled.
Bushy needlebush			confirm with	Biological control –			dense areas	Combination of fire /
Flowers: June to September.			aerial imagery	Erytenna consputa has			WC Dept	mechanical / chemical
			Dense	reduced seed production			Agriculture	control currently in use.
C Police				of secticea in some sites.				Spreads by seed dispersal.
Walter Commencer				Caprosina autologa has				Dense stands - fire hazard
				reduced average number				and threaten the survival
THE RESERVE				accumulated seeds up to				of indigenous fauna and
A STAN WAS STAN A STAN				80% (Hakea sericea,				flora. The most effective
				Schrad&JC Wendl, 2019)				management plan for
				but is not a realist control				controlling Hakea sericea
				method for the OGF				in SA involves a
				currently.				combination of
								mechanical and burning
								control methods, with a
								strong emphasis on
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -								follow-up actions. The
大学双条《by Jane 4 W/g								"fell and burn" is a key
								control method. Adult
<b>公司在京都</b>								plants are cut down and
<b>有一个人</b>								left for 12-18 months
XIA								before burnt, this allows
								for time for seed
								germination, meaning the
X X X X								follow up burn destroys
								the seedlings before they
								<u>become</u> reproductively
								<u>mature.</u>
								Chemical control in dense
								areas is very expensive but
								is used in follow up
Figure C. Hakoa sarisas								clearing operations for
Figure 6: Hakea sericea								seedlings.

Cara	AIS PLANT	Invasive	category	Area on farm /	Biological control	Mechanical control	Fire control	Chemical control	Management
Indian fig opuntia / Prickly-pear  Thick and valley areas  Thick and valley areas  Thick and valley areas  Thick and the Eacts use the (Doctylopius opuntine) and the Eacts use the (Corchibastis contorum) Contact WFW / ARC  Thick and the Eacts use the (Corchibastis contorum) Contact WFW / ARC  Thick and the Eacts use the (Corchibastis contorum) Contact WFW / ARC  Thick and the Eacts use the (Corchibastis contorum) Contact WFW / ARC  Thick and the Eacts use the (Corchibastis contorum) Contact WFW / ARC  Thick and the Eacts use the (Corchibastis contorum) Contact WFW / ARC  Thick and the Eacts use the (Corchibastis contorum) Contact WFW / ARC  Thick and the Eacts use the (Corchibastis contorum) Contact WFW / ARC  Thick and the Eacts use the (Corchibastis contorum) Contact WFW / ARC  Thick and the Eacts use the (Corchibastis contorum) Contact WFW / ARC  Thick and the Eacts use the (Corchibastis contorum) Contact WFW / ARC WC Dept Agriculture  Thick and the Eacts use the (Corchibastis contorum) Contact WFW / ARC WC Dept Agriculture  Thick and the Eacts use the (Corchibastis contorum) Contact WFW / ARC WC Dept Agriculture  Thick and the Eacts use the continuation of biological and mechanical / hand removal recommended.  Thick and the Eacts use the continuation of biological control dispose – flestly parts when even observed and mechanical / hand removal recommended.  Thick and the Eacts use the continuation of the Continuation o		CARA	NEMBA	estimated ha					
Plume Albizia / Stink bean / brush wattle   1	1			Interspersed – no dense areas Thicket and	biological control using host-specific insects like the cochineal (Dactylopius opuntiae) and the cactus moth (Cactoblastis cactorum)	and bag and dispose – fleshy parts make new plants so do not leave on bare	NO	WC Dept	combination of biological and mechanical / hand
Plume Albizia / Stink bean / brush wattle  medium density thicket and valley areas  Melanterius servulus seed feeding weevil Agriculture Include biological control if possible  Melanterius servulus seed feeding weevil Agriculture Include biological control if possible  Melanterius servulus seed feeding weevil seed fing weevil Agriculture Include biological control if possible  Melanterius servulus seed feeding weevil seed fing weevil seed final seed fing weevil	Figure 7: Opuntia ficus-indica								
Figure X. Faraseriantnes ionnantna i i i i i i i i i i i i i i i i i i i		1	1b	medium density thicket	Melanterius servulus seed feeding weevil WFW / ARC /WC Dept Agriculture Include biological control	Hand pulling seedlings in sparse stands / sensitive environments. Cutting – cut trunk close to ground as possible. Felling's using chainsways . hatchets, pangas.		stumps / foliar spray. Herbicides can be applied to the stump after cutting to prevent regrowth. WC	Combining mechanical and chemical methods

AIS PLANT	Invasive	category	Area on farm /	Biological control	Mechanical control	Fire control	Chemical control	Management
	CARA	NEMBA	estimated ha					
(Phytolacca octandra) Inkweed / forest inkberry	1	1b	Interspersed / medium density thicket and valley areas		YES Hand pulling seedlings in sparse stands or sensitive environments Cutting – cut trunk close to ground as possible	Not recommended - Fire can create more open areas, which can actually favor Inkweed's growth and spread.	YES	Phytolacca octandra contains phytolaccatoxin and phytolaccigenin, which are poisonous to mammals though they seldom graze it. Removal combined with chemical control in place
Figure 9: Phytolacca octandra					Fellings using chainsways . hatchets, pangas Ring barking			
(Solanum mauritianum)	1	1b	Interspersed	Lace bug <i>Gargaphia</i>	YES	NO	YES	Must be controlled
Bugweed  Figure 10: Phytolacca octandra			fynbos and valley areas	decoris and the snout beetle Anthonomus santacruzi.	Hand pull seedlings Felling	Fire stimulates the germination of bugweed seeds, which are present in the soil.	Felling bugweed plants close to ground level and treating the stumps with	Combination of hand removal / mechanical removal / chemical control in place.

AIS PLANT	Invasive	category	Area on farm /	Biological control	Mechanical control	Fire control	Chemical control	Management
	CARA	NEMBA	estimated ha					
(Verbena bonariensis)	1	1b	Interspersed	NO	YES	NO	YES	Must be controlled
Purpletop vervain			thicket and		Hand remove small			Hand-pulling is the
			valley areas		infestations			preferred method for
					including root			small infestations, as it
					Large infestations -			minimizes soil
					cut plants and			disturbance.
					apply target			
					herbicide			
Figure 11: Verbena bonariensis								

#### Conservation of Agricultural Resources Act (CARA)

Category 1 - These plants must be removed and controlled by all land users. They may no longer be planted or propagated and all trade in these species is prohibited (e.g. long-leaved wattle, hakea, spider gum, inkberry, sesbania, pittosporum, oleander, stink bean, lantana, pampas grass, prickly pear)

Category 2 – These plants pose a threat to the environment but nevertheless have commercial value. These species are only allowed to occur in demarcated areas and a landuser must obtain a water use license as these plants consume large quantities of water (e.g. rooikrans, Port Jackson, black wattle, blackwood, grey poplar, pine, several gum species, weeping willows, beefwood, sisal, castor oil plant).

Category 3 – These plants have the potential of becoming invasive but are considered to have ornamental value. Existing plants do not have to be removed but no new plantings may occur and the plants may not be sold (eg jacaranda (WC), syringa, manatoka, Brazilian pepper (WC), bottlebrush, cotoneaster, loquat, sword fern, morning glory).

## National Environmental Management Biodiversity Act (NEMBA)

Category 1a – Invasive species requiring compulsory control. They have to be eradicated, and no permits will be issued.

Category 1b – Invasive species requiring compulsory control as part of an invasive species control programme. Due to their invasiveness, infestations may qualify to be placed under a government sponsored invasive species management programme. No permits will be issued.

Category 2 – These species will be regulated by area. Demarcation permits will be required to import, possess, grow, breed, move, sell, buy or accept as a gift. No permits for riparian areas will be issued.

Category 3 – These species will be regulated by activity. Individual plant permits will be required to import, possess, grow, breed, move, sell, buy or accept as a gift. No permits for riparian areas will be issued.

NOTE: The CARA Regulations have been superseded by the National Environmental Management: Biodiversity Act, 2004 (Act no. 10 of 2004)

### 4. Plants to be used for site rehabilitation of AIS cleared areas

Plants to be used for site rehabilitation of cleared areas are provided in Table 3 below. These indigenous plants were provided in the aquatic and flora assessment; recommended guide provided. Seeds are recommended for larger areas with interplanting of trees / shrubs as applicable to the vegetation (e.g. Riverine and thicket / fynbos).

Table 3: Flora species identified for active rehabilitation of disturbed / AIS cleared areas

Species Name	Common Name	Planting density guide / 75 m2
Trees		
Ekebergia capensis	Cape Ash	1
Halleria lucida	Tree fuchsia	3
Osteospermum moniliferum	Bitou	3
Searsia undulata	Kuni-bush	1
Protea neriifolia	Pink ice	1
Buddleja salviifolia	Sagewood	1
Tarchonanthus littoralis	Coastal camphorbush	2
Virgilia oroboides	Keurboom	1
Shrubs		Per 75m2
Agathosma recurvifolia	Boegoe	2
Cyclopia subternata	Vleitee	5
Helichrysum petiolare	Licorice plant	5
Phylica ericoides	Hardeblaar	2
Psoralea axillaris	Violet-flash fountainbush	1
Watsonia angusta	Narrow watsonia	2
Watsonia fourcadei	Forked watsonia	2
Watsonia pillansii	Orange watsonia	2
Selago corymbosa	Stiff bitterbush	2
Otholobium acuminatum	Longsepal dottypea	1
Pelargonium cordifolium	Heartleaf storksbill	3
Grass		Per m2
Themeda triandra	Red grass	2
Eragrostis capensis	Heart-seed love grass	2
Eragrostis curvula	Weeping love grass	2
Pennisetum macrourum	Riverbed grass	2

### 5. Training Register

The training register is required to be completed once training on this AIS plan has been provided to the AIS clearing and maintenance team

Table 4: Training register - Alien Invasive clearing - OGF

Name and surname	ID number	Role	PPE Issued	Training on AIS identification and clearing method provided	Date of training

### 6. Contact information

Relevant contact details are provided in Table 5 below. This must be updated on an ongoing basis as required by OGF management.

Table 5: Useful contact information

Name of organisation	Contact Details
Working for water	021 441 2700
	wfw@dwaf.gov.za
	h.nieuwoudt@sanbi.org.za
National Department of Agriculture	01123197559
	<u>Declaredweedsandinvaders@nda.agric.za</u>
Western Cape Department of Agriculture	Dawie de Villiers
	Dawie.DeVilliers@westerncape.gov.za
Herbicide	Recommend Ecogaurd
	Willie Auret
	wauret@ecoguard.co.za
	082 905 5833
Agricultural Research Council for biocontrol	www.arc.agric.za
	JTjelele@arc.agric.za,
	MullerF@arc.agric.za
	letsoalonl@arc.agric.za
	PriceR@arc.agric.za
Burn Permits	Mossel Bay Municipality

DEADP officer - compliance	Zaidah Toefy
	Zaidah.Toefy@westerncape.gov.za
	Diana Mouton
	Diana.Mouton@westerncape.gov.za
DEADP officer - enforcement	Siphesihle.Khumalo
	siphesihle.khumalo@westerncape.gov.za
DWS officer	Rabokale Mphahlele
	Tel: 023 346 8000   Cell: 079 2141 396rmphahlele@bocma.co.za
	Andiswa Sam
	asam@bocma.co.za
	Anza-Tshilidzitshau Mabayi
	Email: amabayi@bocma.co.za
Cape Nature	Megan Simons
	msimons@capenature.co.za
	Keith Spencer
	kspencer@capenature.co.za
Emergency Fire Response	044 691 3722
Southern Cape Fire Protection Association	Dirk Smit
	044 302 6912 (T)
	086 616 1682 (F)
	managerfpa@gmail.com
Indigenous seeds	Random Harvest Nursery – indigenous grass seeds
	https://www.randomharvest.co.za/South-African-Indigenous-
	Plants/Show-Plant/PlantId/377/Plant/Eragrostis-curvula
	info@rhn.co.za
	082 553 0598
	Garden route botanical nursery
Indigenous plants	Random Harvest Nursery
	info@rhn.co.za
	082 553 0598
	Garden Route Botanical Gerden
	info@botanicalgarden.org.za
	manager@botanicalgarden.org.za
	0448741558
Indigenous Trees	Garden Route Botanical Gerden
	info@botanicalgarden.org.za
	manager@botanicalgarden.org.za
	0448741558
	https://botanicalgarden.org.za/wp-
	content/uploads/2024/12/Catalogue-Dec-24.pdf
Life Day View Drivete Hearital	20
Life Bay View Private Hospital	044 691 3718

### Appendix A – Relevant legislation

Landowners are under a legal obligation to control invading alien plants occurring on their properties.

- Applicable legislation (this list is not exhaustive and recommended to be updated as required):
- Common law relating to neighbours and nuisance;
- Section 151(1) of the National Water Act 36 of 1998
- National Environmental Management Act, 107 of 1998;
- Section 31A of the Environment Conservation Act, 73 of 1989;
- Municipal by-laws and the National Veld and Forest Fire Act 101 of 1989
- Regulations in terms of the Conservation of Agricultural Resources Act, 43 of 1983.
- Regulations in terms of the National Environmental Management: Biodiversity Act (Act 10 of 2004)

NOTE: The CARA Regulations have been superseded by the National Environmental Management: Biodiversity Act, 2004 (Act no. 10 of 2004)



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### **GOVERNMENT NOTICE**

**Environmental Affairs, Department of** 

Government Notice

### GOVERNMENT NOTICE

### **DEPARTMENT OF ENVIRONMENTAL AFFAIRS**

No. 599

1 August 2014

NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT 2004 (ACT NO, 10 OF 2004)

ALIEN AND INVASIVE SPECIES LISTS, 2014

I, Bomo Edith Edna Molewa, Minister of Water and Environmental Affairs, hereby publishes the following Alien and Invasive Species lists in terms of sections 66(1), 67(1), 70(1)(a), 71(3) and 71A of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) as set out in the Schedule hereto.

MS. BOMO EDITH EDNA MOLEWA MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

### NOTICES AND LISTS IN TERMS OF SECTIONS 66(1), 67(1), 70(1)(a), 71(3) and 71A

- Notice 1: Notice in respect of Categories 1a, 1b, 2 and 3, Listed Invasive Species, in terms of which certain Restricted Activities are prohibited in terms of section 71A(1); exempted in terms of section 71(3); require a Permit in terms of section 71(1)
- Notice 2: Exempted Alien Species in terms of section 66(1).
- Notice 3: National Lists of Invasive Species in terms section 70(1). 559 species/groups of species

ists of infusive openies in terms couldn't et i	00 01 0p00100
National List of Invasive Terrestrial and Fresh-water Plant Species	379
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National List of Invasive Amphibian Species	7
National List of Invasíve Fresh-water Fish Species	15
National List of Invasive Marine Fish Species	0
National List of Invasive Terrestrial Invertebrate Species	23
National List of Invasive Fresh-water Invertebrate Species	8
National List of Invasive Marine Invertebrate Species	16
National List of Invasive Microbial Species	7
	National List of Invasive Terrestrial and Fresh-water Plant Species  National List of Invasive Marine Plant Species  National List of Invasive Marmal Species  National List of Invasive Bird Species  National List of Invasive Reptile Species  National List of Invasive Amphibian Species  National List of Invasive Fresh-water Fish Species  National List of Invasive Marine Fish Species  National List of Invasive Terrestrial Invertebrate Species  National List of Invasive Fresh-water Invertebrate Species  National List of Invasive Marine Invertebrate Species

### Notice 4: Prohibited Alien Species in terms of section 67(1) 560 species/groups of species

List 1:	Prohibited Terrestrial and Fresh-water Plant Species	238
List 2:	Prohibited Marine Plant Species	2
List 3:	Prohibited Mammal Species	18
List 4:	Prohibited Bird Species	20
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List 11:	Prohibited Marine Invertebrate Species	7
List 12:	Prohibited Microbial Species	7

These notices must be read together with the Alien and Invasive Species Regulations, 2014. Any word or phrase defined in the Alien and Invasive Species Regulations shall have the same meaning in these notices.

These notices shall take effect 60 days from date of publication in the Gazette.

# NOTICE IN RESPECT OF CATEGORIES 12, 15, 2 AND 3 LISTED INVASIVE SPECIES, IN TERMS OF WHICH CERTAIN RESTRICTED ACTIVITIES ARE PROHIBITED IN TERMS OF SECTION 71A(1); EXEMPTED IN TERMS OF SECTION 71(3); REQUIRE A PERMIT IN TERMS OF SECTION 71(1)

Categories 1a, 1b, 2 and 3 Listed Invasive Species, in terms of which certain Restricted Activities are—

- exempted in terms of section 71(3); or
- require a Permit in terms of Chapter 7. (a) prohibited in terms of section 71A(1); (b) exempted in terms of section 71(3); o (c) require a Permit in terms of Chapter 7 and must be read with the lists in Notice 3.

'catchment", in relation to a watercourse or watercourses or part of a watercourse, means the area from which any rainfall will drain into the watercourse or watercourses or part of a watercourse, through surface flow to a common point or common points;

cultivation", in relation to land, means any act by means of which the topsoil is disturbed mechanically;

"discrete catchment systems" means all inland water bodies, whether fresh or saline, including rivers, natural lakes, dams, wetlands and estuaries, that are within a catchment that is separated from other catchments 'untransformed land" means land that has not been altered from its natural state, or land that is used for natural grazing, and including land in its natural state that has been degraded by factors such as soil erosion, over-grazing, over-burning, flooding, invasive species and bush encroachment; and

'watercourse" shall have the meaning assigned to it in the National Water Act, 1998 (Act No. 36 of 1998)

## General exemption of listed invasive species:

All dead specimens of any listed invasive species are exempted from requiring a Permit for any restricted activity.

Note that the species-specific exemptions and prohibitions in Notice 3 take precedence over Notice 1, in the event of any conflict.

	Restricted Activities as defined in the Act	Category 1a	Category 1b	Category 2	Category 3
ю	Importing into the Republic, including introducing from the sea, any specimen of a listed invasive species.	Prohibited	Prohibited	Permit Required	Prohibited
ت	Having in possession or exercising physical control over any specimen of a listed invasive species.	Exempted	Exempted	Permit Required	Exempted
ປ ,	Growing, breeding or in any other way propagating any specimen of a listed invasive species, or causing it to multiply.	Prohibited	Prohibited	Permit Required	Prohibited
ъ;	Conveying, moving or otherwise translocating any specimen of a listed invasive species.	Prohibited	Prohibited	Permit Required	Prohibited
Φ	Selling or otherwise trading in, buying, receiving, giving, donating or accepting as a gift, or in any way acquiring or disposing of any specimen of a listed invasive species.	Prohibited	Prohibited	Permit Required	Prohibited
	Restricted Activities as defined in Regulation 6				
نب	Spreading or allowing the spread of any specimen of a listed invasive species.	Prohibited	Prohibited	Permit Required	Prohibited
க்	Releasing any specimen of a listed invasive species.	Prohibited	Prohibited	Permit Required	Prohibited
<u>-</u>	The transfer or release of a specimen of a listed invasive fresh-water species from one discrete catchment system in which it occurs, to another discrete catchment system in which it does not occur; or, from within a part of a discrete catchment system where it does occur to another part where it does not occur as a result of a natural or artificial barrier.	Prohibited	Prohibited	Permit Required	Prohibited
· <del></del>	Discharging of or disposing into any waterway or the ocean, water from an aquarium, tank or other receptacle that has been used to keep a specimen of an alien or a listed invasive species.	Prohibited	Prohibited	Permit Required	Prohibited
<b>.</b> —`.	Catch and release of a specimen of a listed invasive fresh-water fish or listed invasive fresh-water invertebrate species.	Prohibited	See Notice 3	See Notice 3	See Notice 3
يخا	The introduction of a specimen of an alien or a listed invasive species to off-shore islands.	Prohibited	Prohibited	Prohibited	Prohibited
<u>-</u>	The release of a specimen of a listed invasive fresh-water fish species, or of a listed invasive fresh-water invertebrate species, into a discrete catchment system in which it already occurs.	See Notice 3	See Notice 3	See Notice 3	See Notice 3

## NOTICE 2:

# NOTICE IN TERMS OF SECTION 66(1) - EXEMPTED ALIEN SPECIES

extra-limital" means an indigenous species translocated or intended to be translocated to a place outside its natural distribution range, but not an indigenous species that has extended its natural distribution range by natural means of migration or dispersal without human intervention.

- The following categories of alien species that are within the Republic when this Notice comes into effect, are exempted from the provisions of section 65(1) of the Act
  - Dead specimens of any alien species, including: त्तं

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- dead specimens imported, kept, or removed from one area to another as taxonomic reference specimen; and
  - dead specimens used as derivates in products, including food, cosmetics and detergents
- Any alien species that has been legally introduced into the Republic, or was introduced into the Republic prior to any legal requirement for such introduction, for agricultural purposes, and any new cultivar, variety, or hybrid of any species legally imported for agricultural purposes (excluding those which are already listed as invasive).
  - Any alien species, other than an alien species introduced for agricultural purposes as contemplated in paragraph (b) above, that has been legally introduced into the Republic, or was ntroduced into the Republic prior to any legal requirement for such introduction, prior to the commencement of this Notice. ئ
    - Any invasive species listed in terms of section 70(1)(a) of the Act. မှာ စ
      - All extra-limital taxa in the Republic, other than fresh-water fish
- The following categories of alien species that are not within the Republic when this Notice comes into effect and comes into the Republic from outside of the Republic are exempted from the provisions of section 65(1) of the Act: αĬ
  - Any alien species thatæ
- has been subjected to a risk assessment and authorised for importation in terms of the Act; and
- is listed in a register of alien species legally imported into the Republic for the first time after the date of publication of the Alien and Invasive Species Regulations, 2014 and this Notice, which register is established and maintained by the Institute. €€
- Dead specimens of any alien species including:

Ö

- dead specimens imported, kept, or removed from one area to another as taxonomic reference specimens, and
- dead specimens used as derivates in products, including food, cosmetics and detergents. (ii) dead specimens imported, kept, or removed from one area to dead specimens used as derivates in products, including for Any invasive species listed in terms of section 70(1)(a) of the Act.
  - ن

## NOTICE 3:

# NATIONAL LIST OF INVASIVE SPECIES IN TERMS SECTION 70(1)(A)

In this Notice and where elsewhere referred to in this Government Notice:

"exempted for an existing plantation" means a plantation which existed when this Notice comes into effect, is exempted from requiring a permit for any restricted activity in terms of the Act or the Act or the National Water Act, 1998 (Act No. 36 of 1998); and

"urban area" means the area within the proclaimed urban edge, as delineated in the Municipal Spatial Development Framework in terms of the Spatial Land Use Management Act, 2013 (Act No. 16 of

List 1: National list of Invasive Terrestrial and Fresh-water Plant Species

Š	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 714(1)
<u>-</u>	Acacia adunca A.Cunn. ex G.Don	Cascade wattle, Wallangarra wattle	la	
7.	Acacia baileyana F.Muell.	Bailey's wattle	3	
က်	Acacia cyclops A.Cunn. ex G.Don	Red eye	1b	
4	Acacia dealbata Link	Silver wattle	2	
5.	Acacia decurrens Willd. and hybrids, varieties and selections	Green wattle	2	Exempted for an existing plantation.
6.	Acacia elata A.Cunn. ex Benth. (Acacia terminalis (Salisb.) misapplied in South Africa)	Pepper tree wattle	16	
7.	Acacia fimbriata A.Cunn. ex G.Don	Fringed wattle, Brisbane wattle	18	
∞	Acacia implexa Benth.	Screw pod wattle	1a	
6	Acacia longifolia (Andrews) Willd.	Long-leaved wattle	1b	
10.	Acacia meamsii De Wild. and hybrids, varieties and selections	Black wattle	2	Exempted for an existing plantation.
7	Acacia melanoxylon R.Br. and hybrids, varieties and selections	Australian blackwood	2	Exempted for an existing plantation.

NO.	SPECIES		CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
12.	Acacia paradoxa DC. (= A. armata R.Br.)	Kangaroo thom, Kangaroo wattle	1a	
13.	Acacia podalyriifolia A.Cunn. ex G.Don	Pearl acacía	16	i i i i i i i i i i i i i i i i i i i
14.	Acacia pyonantha Benth.	Golden wattle	16	
15.	Acacia saligna (Labill.) H.L.Wendl.	Port Jackson, Port Jackson willow	1b	
16.	Acacia stricta (Andrews) Willd.	Hop wattle	18	
17.	Acer buergerianum Miq.	Chinese maple	<ul> <li>a. 3 in Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, North-West, Northern Cape and Western Cape.</li> <li>b. Not listed in urban areas in the Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, North-West, Northern Cape and Western Cape.</li> <li>c. Not listed elsewhere.</li> </ul>	
18.	Acer negundo L.	Ash-leaved maple, Box elder	a. 3 b. Sterile cultivars or hybrids are not listed.	
19.	Agave americana L. subsp. americana var. expansa (Jacobi) Gentry	Spreading century-plant	a. 3 in Western Cape. b. Not listed elsewhere.	
20.	Agave sisalana Perrine	Sisal hemp, Sisal	2	
21.	Ageratina adenophora (Spreng.) R.M.King & H.Rob. (= Eupatorium adenophorum Spreng.)	Crofton weed	16	
22.	Ageratina riparia (Regel) R.M.King & H.Rob. (= Eupatorium riparium Regel)	Mistlower	1b	
23.	Ageratum conyzoides L.	Invading ageratum	1b	
24.	Ageratum houstonianum Mill.	Mexican ageratum	<ul> <li>a. 1b</li> <li>b. Sterile cultivars or hybrids are not listed.</li> </ul>	
25.	Agrimonia procera Wallr. (= A. odorata Mill.)	Scented agrimony	16	
26.	Agrostis castellana Boiss. & Reut.	Bent grass	<ul> <li>a. 1a Prince Edward Island.</li> <li>b. 1b Marion Island.</li> <li>c. Not listed on mainland or other off-shore islands.</li> </ul>	-
27.	Agrostis gigantea Roth	Black bent grass, Redtop	<ul> <li>a. 1a Prince Edward and Marion Islands.</li> <li>b. Not listed on mainland or other off-shore islands.</li> </ul>	

		=		SCOPE OF EXEMPTION FROM THE
Ö	SPECIES	COMMON NAME	CATEGORY / AREA	PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
28.	Agrostis stolonifera L.	Creeping bent grass	<ul> <li>a. 1a Prince Edward Island.</li> <li>b. 1b Marion Island.</li> <li>c. Not listed on mainland or other off-shore islands.</li> </ul>	
ଷ	Ailanthus attissima (Mill.) Swingle	Tree-of-heaven	1b	
8	Albizia lebbeck (L.) Benth.	Lebbeck tree	10	
31.	Albizia procera (Roxb.) Benth.	False lebbeck	1b	
32.	Alhagi maurorum Medik. (= A. camelorum Fisch.)	Camel thom bush	1b	
33.	Alisma plantago-aquatica L.	Mud plantain, Water alisma	1b	
34.	Alopecurus geniculatus L. (= A. australis Nees)	Marsh foxtail, Water foxtail	<ul> <li>a. 1a Prince Edward and Marion Islands.</li> <li>b. Not listed on mainland or other off-shore islands.</li> </ul>	
35.	Alpinia zerumbet (Pers.) B.L.Burtt & R.M.Sm. (= A. speciosa (J.C.Wendl.) Schum.)	Shell ginger, Pink porcelain lily	ဇ	
36.	Ammophila arenaria (L.) Link	Marram grass	3	
37.	Anredera cordifolia (Ten.) Steenis (A. baselloides misapplied in South Africa)	Madeira vine, Bridal wreath	1b	
38.	Antigonon leptopus Hook. & Am.	Coral creeper	1b	
39.	Araujia sericifera Brot.	Moth catcher	1b	
40.	Ardisia crenata Sims (Ardisia crispa misapplied in South Africa)	Coralberry tree, Coral Bush	1b	
41.	Ardisia eliptica Thunb. (= A. humilis Vahl)	Shoebutton ardisia	10	
42.	Argemone mexicana L.	Yellow-flowered Mexican poppy	16	
43.	Argemone ochroleuca Sweet	White-flowered Mexican poppy	1b	
44.	Aristolochia elegans Mast.	Dutchman's pipe	(b)	
45.	Arundo donax L.	Giant reed, Spanish reed	q),	
46.	Atriplex inflata F.Muell. (= A. lindleyi Moq. subsp. inflata (F.Muell.) Paul G.Wilson)	Sponge-fruit sattbush	1b	
47.	Atriplex nummularia Lindl. subsp. Nummularia	Old man sattbush	2	
<b>4</b>	Austrocylindropuntia cylindrica (Juss. ex	Cane cactus	1a	

NO.	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
	Lam.) Backeberg.			
49.	Austrocylindropuntia subulata (Muehlenpf.) Backeb. subsp. exaltata (A. Berger) D.R. Hunt (= Opuntia exaltata A. Berger)	Long spine cactus	1b	
50.	Azolla cristata Kaulf. (= A. microphylla Kaulf.)	Tropical red water fern	1b	
51.	Azolla filiculoides Lam.	Azolla, Red water fern	10	
52.	Azolla pinnata R.Br. subsp. asiatica R.M.K.Saunders & K.Fowler (= A. imbricata (Roxb. ex Griff.) Nakai	Mosquito fern	1b	
;	Bartlettina sordida (Less.) R.M. King & H.Rob.	; ;	:	
23.	(= Eupatorium atrorubens (Lem.) G.Nicholson, E. sordidum Less.)	Bartlettina	1b	
54.	Bauhinia purpurea L.	Butterfly orchid tree	<ul> <li>a. 1b in Eastern Cape, KwaZuiu-Natal, Limpopo and Mpurnalanga.</li> <li>b. 3 in Free State, Gauteng, North-West, Northern Cape and Western Cape.</li> </ul>	
55.	Bauhinia variegata L.	Orchid tree	<ul> <li>a. 1b in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga.</li> <li>b. 3 in Free State, Gauteng, North-West, Northern Cape and Western Cape.</li> </ul>	
56.	Berberis thunbergii DC.	Japanese barberry	a. 3 b. Sterile cultivars or hybrids are not listed.	
57.	Billardiera heterophylla (Lindl.) L.W.Cayzer & Crisp (= Sollya heterophylla Lindl.)	Bluebell creeper	18	
	Bryophyllum delagoense (Eckl. & Zeyh.) Schinz			
28	(= B. tubiflorum Harv., Kalanchoe tubiflora (Harv.) RaymHamet, K. delagoensis Eckl. & Zeyh.)	Chandelier plant	16	
29	Bryophyllum pinnatum (Lam.) Oken	Cathedral bells	1b	
.09	Bryophyllum proliferum Bowie ex Hook. (= Kalanchoe prolifera (Bowie) RaymHamet)	Green mother of millions	10	
61.	Buddileja davidii Franch.	Chinese sagewood, Summer	a. 3	

63. 63. 63.				SCOPE OF EXEMPTION FROM THE
	SPECIES	COMMON NAME	CATEGORY / AREA	PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
		lilac	b. Sterile cultivars or hybrids are not listed.	
	Buddleja madagascariensis Lam.	Madagascar sagewood	3	
	Cabomba caroliniana A. Gray	Cabomba, Carolina fanwort	la la	
2 <u>4</u> Ω π	Caesalpinia decapetala (Roth) Alston (= C. sepiaria Roxb.)	Mauritius thorn	1b	
	Caesalpinia gilliesii (Hook.) D.Dietr.	Bird-of-paradise flower	1b	
66.	Callisia repens (Jacq.) L.	Creeping inch plant	1b	
67. G	Callistemon citrinus (Curtis) Skeels (= Melaleuca citrina (Curtis) Dum.Cours.)	Lemon bottlebrush	3	
98 89	Callistemon rigidus R.Br.	Stiff-leaved bottlebrush	<ul> <li>a. 1b in Eastern Cape and Western Cape.</li> <li>b. 3 in Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North-West and Northern Cape.</li> </ul>	
	Callistemon viminalis (Sol. ex Gaertn.) G.Don	Weeping bottlebrush	<ul> <li>a. 1b in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga.</li> <li>b. 3 in Free State, Gauteng, North-West, Northern Cape and Western Cape.</li> <li>c. Sterile cultivars or hybrids are not listed.</li> </ul>	
70.	Calotropis procera (Aiton) W.T.Aiton	Calotropis, Giant- milkweed	10	
7.	Campuloclinium macrocephalum (Less.) DC.  = Eupatorium macrocephalum Less.)	Pompom weed	16	
72. C	Canna indica L.	Indian shot	<ul> <li>a. 1b</li> <li>b. Sterile cultivars or hybrids are not listed.</li> </ul>	
73. C	Cardiospermum grandiflorum Sw.	Balloon vine	1b	
74. C	Cardiospermum halicacabum L.	Lesser balloon vine	3	
75. C	Carduus nutans L. (= C. macrocephalus Dest.)	Nodding thistle	1b	
76. G	Casuarina cunninghamiana Miq.	Beefwood	<ul> <li>a. 2</li> <li>b. 1b within 100 metres of riparian areas or untransformed land.</li> </ul>	
77. C	Casuarina equisetifolia L.	Horsetail tree	2	
78.	Catharanthus roseus (L.) G.Don	Madagascar periwinkle	<ul> <li>a. 1b</li> <li>b. Sterile cultivars or hybrids are not listed.</li> </ul>	
79.	Cettis australis L.	Nettie tree, European hackberry	3	
80.	Celtis occidentalis L.	Common hackberry	3	

				SCOPE OF EXEMPTION FROM THE
Ŏ.	SPECIES	COMMON NAME	CATEGORY / AREA	PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
81.	Centranthus ruber (L.) DC.	Red valerian, Devil's beard	a. 1b in Western Cape b. Not listed elsewhere	
82.	Cerastium fontanum Baumg.	Common mouse-ear chickweed	<ul> <li>a. 1b Prince Edward and Marion Islands</li> <li>b. Not listed on mainland or other off-shore islands.</li> </ul>	
83	Cereus hexagonus (L.) Mill.,	Queen of the night	qp qp	
84.	Cereus hildmannianus K. Schum.(= C. peruvianus auct. pl., C. unguayanus R.Kiesling)	Queen of the night	1b	
85.	Cereus jamacaru DC.	Queen of the night	16	
.98	Cestrum aurantiacum Lindl.	Orange cestrum	10	::
87.	Cestrum elegans (Brongn.) Schitdl. (= C. purpureum (Lindl.) standl.)	Crimson cestrum	q)	
88.	Cestrum laevigatum Schltdl.	Inkberry	110	
83	Cestrum parqui L'Hér.	Chilean cestrum	q)	
.06	Cestrum species not specifically listed	Cestrum species	a. 3 b. Sterile cultivars or hybrids are not listed.	
91.	Chondrilla juncea L.	Skeleton weed	18	
92.	Chromolaena odorata (L.) R.M.King & H.Rob. (= Eupatorium odoratum L.)	Triffid weed, Chromolaena	16	
93.	Cinnamomum camphora (L.) J.Presl	Camphor tree	<ul> <li>a. 1b in Eastern Cape, KwaZulu-Natal, Limpopo and Mpurnalanga.</li> <li>b. 3 in Western Cape.</li> <li>c. National Heritage Trees or National Monument Trees in terms of the National Heritage Resources Act, 1999, (Act No. 25 of 1999) in Eastern Cape, KwaZulu-Natal, Limpopo, Mpurnalanga and the Western Cape, are not listed.</li> <li>d. Not listed elsewhere.</li> </ul>	·
94.	Cirsium vulgare (Savi) Ten. (= C. lanceolatum (L.) Scop.)	Spear thistle, Scotch thistle	1b	
95.	Convolvulus arvensis L.	Field bindweed, Wild morning- glary	q)	
96.	Coreopsis lanceolata L.	Tickseed	a. 1a b. Sterile cultivars or hybrids are not listed.	
97.	Cortaderia jubata (Lemoine ex Carrière)	Pampas grass	1b	

Ģ	SPECIES	COMMON NAME	CATEGORY / AREA	PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 714(1)
が	Stapf			
පී සේ	Cortaderia selloana (Schult.) Asch. & Graebn.	Pampas grass	<ul> <li>a. 1b</li> <li>b. Sterile cultivars or hybrids are not listed.</li> </ul>	
ය මෙ	Cotoneaster franchetii Bois	Cotoneaster	16	
186 S	Cotoneaster glaucophyllus Franch.	Late cotoneaster	1b	
1 <u>9</u>	Cofoneaster pannosus Franch.	Silver leaf cotoneaster	1b	
├	Cotoneaster salicifolius Franch.	Willow-leaved showberry	1b	
103.	Cotoneaster simonsii Baker	Himalayan cotoneaster, Simon's cotoneaster	1b	
104 2	Crotalaria agatiflora Schweinf.	Canarybird bush, Bird flower	16	
105. C	Cryptostegia grandiflora R.Br.	Rubber vine	16	
දි දි	Cryptostegia madagascariensis Bojer ex Decne.	Madagascar rubber vine	16	
107.	Cuscuta campestris Yunck.	Common dodder	10	
108 23	Cuscuta suaveolens Ser.	Lucerne dodder	10	
109. 20. 20.	Cylindropuntia fulgida (Engelm.) F.M.Knuth var. fulgida (= Opuntia fulgida Engelm.) (O. rosea DC. misapplied in South Africa).	Chain-fruit cholla (previously known as rosea caclus)	1b	
110. - var	Cylindropuntia fulgida (Engelm.) F.M.Knuth var. mamillata (Schott ex Engelm.) Backeb.	Boxing-glove cactus, Mamillate cactus	16	
111. Ç∓	Cylindropuntia imbricata (Haw.) F.M.Knuth (= Opuntia imbricata (Haw.) DC.	Imbricate cactus, Imbricate prickly pear	1b	
112.	Cylindropuntia leptocaulis (DC.) F.M.Knuth	Pencil cactus	16	
113.	Cylindropuntia pallida (Rose) F.M.Knuth	Pink-flowered sheathed cholla		
114. CV	Cylindropuntia spinosior (Englem.) F.M.Knuth	Cane cholla, Spiny cholla	18	
115. Oy	Cytisus scoparius (L.) Link (= Genista scoparia (L.) Lam.)	Scotch broom	18	
Н	Datura ferox L.	Large thorn apple	16	
	Datura innoxia Mill.	Downy thorn apple	1b	
$\dashv$	Datura stramonium L.	Common thom apple	4 <b>p</b>	
119. Dig	Diplocyclos palmatus (L.) C.Jeffrey	Lollipop-climber	1a	

				SCOPE OF EXEMPTION FROM THE
Ŏ.	SPECIES	COMMON NAME	CATEGORY I AREA	PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
120.	Dolichandra unguis-cafi (L.) L. G. Lohmann (= Macfadyena unguis-cafi (L.) A.H.Gentry	Cat's daw creeper	1b	
121	Duchesnea indica (Andrews) Focke	Wild strawberry	1p	
			<ul> <li>a. 3 in Gauteng, Kwazulu-Natal, Limpopo, Mpumalanga and North-West.</li> <li>b. 2 for breeding in nurseries in Gauteng, Kwazulu-Natal, Limpopo,</li> </ul>	
122.	Duranta erecta L. (= D. repens L., D. plumieri Jacq.)	Forget-me-not-tree, Pigeon berry	Mpumalanga and North-West, but may not be transferred within these Provincial boundaries.	
			c. Not listed elsewhere. d. Sterile cultivars or hybrids are not listed.	
123.	Echinodorus cordifolius (L.) Griseb.	Creeping burhead	e. Sheena's Gold curivar is not listed.	
124.	Echinodorus fenellus (Mart. ex Schult.f.) Buchenau	Amazon sword plant	1b	
125.	Echinopsis schickendantzii F.A.C.Weber (= E. spachiana (Lem.) Friedrich & G.D.Rowley	Torch cactus	16	
126	Echium plantagineum L.   (= E. lycopsis L.)	Patterson's curse	1b	
127.	Echium vulgare L.	Blue echium	d)	
128.	Egeria densa Planch. (= Elodea densa (Planch.) Casp.)	Dense water weed	4b	
129.	Eichhomie crassipes (Mart.) Solms	Water hyacinth	16	
130.	Elodea canadensis Michx.	Canadian water weed	1b	
131.	Elytrigia repens (L.) Desv. ex Nevski (= Agropyron repens (L.) P. Beauv., Elymus repens (L.) Gould)	Couch grass	<ul> <li>a. 1a Prince Edward and Marion Islands.</li> <li>b. Not listed on mainland or other off-shore islands.</li> </ul>	
132.	Equisetum hyemale L.	Rough horsetail, Common scouring-rush	<u>6</u>	
133.	Eriobotrya japonica (Thunb.) Lindl.	Loquat	<ul> <li>a. 1b in Western Cape and Forest biome.</li> <li>b. Not listed in urban areas in Western Cape.</li> <li>c. Not listed elsewhere.</li> <li>d. The fruit of the loquat is not listed if used for human consumption.</li> </ul>	
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NO.	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
134.	Eucalyptus camaldulensis Dehnh. and hybrids, varieties and selections	River red gum	a. Category 1b within- (i) riparian areas; (ii) a Protected Area declared in terms of the Protected Areas	
135.	Eucalyptus cladocalyx F.Muell. and hybrids, varieties and selections	Sugar gum		
136.	Eucalyptus conferruminata D.J.Carr & S.G.M.Carr and hybrids, varieties and selections (E. lehmannii misapplied in South Africa)	Spider gum	<ul> <li>b. Not listed within Nama-Karoo, Succulent Karoo and Desert biomes, excituding within any area mentioned in (a) above.</li> <li>c. Category 1b in Fynbos, Grassland, Savanna, Albany Thicket, Forest and Indian Ocean Coastal Belt biomes, but-</li> </ul>	Exempted for an existing plantation.
137.	Eucalyptus diversicolor F.Muell. and hybrids, varieties and selections	Karri	(i) Category 2 for plantations, woodlots, bee-forage areas, wind-rows and the lining of avenues.  (ii) Not listed within cultivated land that is at least 50 metres and from instrumentation and but evoluting within any	
138.	Eucatyptus grandis W.Hill ex Maiden (E. saligna Sm. in part) and hybrids, varieties and selections	Saligna gum, Rose gum	area in (a) above.  (iii) Not listed within 50 metres of the main house on a farm, but excluding in (a) above.  (iv) Not listed in urban areas for trees with a diameter of more	
139.	Eucalyptus tereticomis Sm. and hybrids, varieties and selections	Forest red gum	than 400 mm at 1000 mm height at the time of publishing of this Notice, but excluding in (a) above.	
140.	Eugenia uniflora L.	Pitanga, Surinam cherry	1b	
141.	Euphorbie esula L. (= E. xpseudovirgata (Schur) Soó, E. tommasiniana Bertol., E. virgata Waldst. & Kit.)	Leafy spurge	18	

Ŋ.	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3)! PROHIBITION IN TERMS OF SECTION 71A(1)
159.	Harrisia balansae (K. Schum.) N.P.Taylor & Zappi	Strangler prickly apple	1a	
160.	Harrisia martinii (Labour.) Britton   = Eriocereus martinii (Labour.) Riccob.)	Moon cactus	1b	
161.	Harrisia pomanensis (F.A.C.Weber) Britton & Rose	Midnight lady, Devil's rope cactus	1a	
162.	Harrisia tortuosa (J.Forbes ex Otto & A.Dietr.) Britton & Rose	Spiny snake cactus	1b	
163.	Hedera canariensis Willd. (= Hedera helix L. subsp. canariensis (Willd.) Cout.)	Canary ivy, Madeira ivy, Algerian ivy	a. 3 b. Sterile cultivars or hybrids are not listed.	
164.	Hedera helix L. (= Hedera helix L. subsp. helix)	English ivy	a. 3 b. Sterile cultivars or hybrids are not listed.	
165.	Hedychium coccineum BuchHam. ex Sm.	Red ginger lily	1b 1b	
166.	Hedychium coronarium J.König	White ginger lily	1b	
167.	Hedychium flavescens Carey ex Roscoe	Yellow ginger lily	1b	
168.	Hedychium gardnenanum Sheppard ex Ker Gawl.	Kahili ginger lily	1b	
169.	Homalanthus populifolius Graham	Bleeding-heart tree	16	
170.	Houttuynia cordata Thunb.	Chameleon plant	3	
171.	Hydrille verticillata (L.f.) Royle	Hydrilla	1a	
172.	Hydrocleys nymphoides (Humb. & Bonpl. ex Willd.) Buchenau	Water poppy	1a	
173.	Hylocereus undatus (Haw.) Britton & Rose	Night-blooming cereus, Dragon fruit, Pitahaya	<ul> <li>a. 2</li> <li>b. The fruit of night-blooming cactus is not listed if used for human consumption.</li> </ul>	
174.	Hypericum androsaemum L.	Tutsan	1b	
175.	Hypericum perforatum L.	St. John's wort, Tipton weed	2	
176.	Ipomoea alba L.	Moonflower	(p	
177.	<pre>// ipomoea camea Jacq. subsp. fistulosa (Mart. ex Choisy) D.F.Austin (= l. fistulosa Mart. ex Choisy)</pre>	Morning-glory bush	1b	
178.	Ipomoea indica (Burm.) Merr.   (= 1. congesta R.Br.)	Morning glory	a. 1b b. Sterile cuttivars or hybrids are not listed.	

Š	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
179.	Ipomoea purpurea (L.) Roth	Morning glory	<ul> <li>a. 1b</li> <li>b. Sterile cultivars or hybrids are not listed.</li> </ul>	
8	Iris pseudacorus L.	Yellow flag	fa fa	
18.	Jacaranda mimosifolia D.Don	Jacaranda	a. 1b in Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga and North-West. b. Not listed for urban areas in Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga and North-West. c. Not listed within 50 metres of the main house on a farm in Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga and North-West, for trees with a diameter of more than 400 mm at 1000 mm height at the time of publishing of this Notice, provided such tress are located outside riparian areas. d. Not listed elsewhere.	
182.	Jatropha curcas L.	Physic nut	2	
183.	Jatropha gossypiifolia L.	Cotton-leaf physic nut	16	
184.	Juniperus virginiana L.	Red cedar	<ul> <li>a. 3 in Eastern Cape and Free State.</li> <li>b. Not listed elsewhere.</li> </ul>	
185.	Kunzea ericoides (A.Rich.) Joy Thomps. (= Leptospermum ericoides A. Rich.)	Burgan, White teatree	la.	
186.	Lantana – all seed-producing species or seed-producing hybrids that are non-indigenous to South Africa	Lantana, Tickberry, Cherry pie	1b	
187.	Lepidium draba L. (= Cardaria draba (L.) Desv.)	Hoary cardaria	1b	
188.	Leptospermum laevigatum (Gaertn.) F.Muell.	Australian myrtle	1b	
189.	Leucaena leucocephala (Lam.) de Wit (= L. gíauca Benti.)	Leucaena	2	
190.	Ligustrum japonicum Thunb.	Japanese wax-leaved privet	<ul> <li>a. 1b in Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga,</li> <li>North-West and Western Cape.</li> <li>b. 3 in Free State, Gauteng and Northern Cape.</li> </ul>	
191.	Ligustrum lucidum W.T.Aiton	Chinese wax-leaved privet	a. 1b in Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, North-West and Western Cape.     b. 3 in Free State, Gauteng and Northern Cape.	

Š.	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
			c. Sterile cultivars or hybrids are not listed.	
	de seu l'about de l'about de la constant de la cons		a. 1b in Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga,	
192.	Elgustam ovanomin nassk.	Californian privet	b 3 in Free State. Gauteng and Northern Cabe.	
5			a. 1b in Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga,	
	Ligustrum sinense Lour.	Culliese priver	North-west and western cape.  b. 3 in Free State, Gauteng and Northern Cape.	
₹	Ligustrum vulgare L.	Common privet	North-West and Western Cape.  b. 3 in Free State Gauteno and Northern Cape.	
195.	Lilium formosanum Wallace (= L. longiflorum Thunb. var. formosanum Baker)	Formosa lily		
196.	Limonium sinuatum (L.) Mill.	Statice, Sea lavender	<ul> <li>a. 1b in Northern Cape and Western Cape.</li> <li>b. Not listed elsewhere.</li> </ul>	
			c. Sterile cultivars or hybrids are not listed.	
197.	Linaria dalmatica (L.) Mill.  (= Antirrhinum dalmaticum L., Linaria genistifolia subsp. dalmatica (L.) Maire & Petitm.	Dalmatian toadflax, Broadleaf toadflax	1b	
198.	Linania vulganis Mill.	Common toadflax, Butter- and- eggs	, 1b	
199.	Litsea glutinosa (Lour.) C.B.Rob. (= Litsea sebifera Pers.)	Indian laurel	10	
200	Lonicera japonica Thunb. 'Halliana'	Japanese or Hall's honeysuckle	3	
201.	Ludwigia peruviana (L.) H. Hara	Water-primrose, Peruvian primrosebush	18	
202.	Luzula multiflora (Ehrh.) Lej.	Woodrush	<ul> <li>a. 1a Prince Edward and Marion Islands.</li> <li>b. Not listed on mainland or other off-shore islands.</li> </ul>	
233	Lythrum hyssopifolia L.	Hyssop loosestrife	16	
ğ	Lythrum salicaria L.	Purple loosestrife	1a	
202	Malva dendromorpha M.F.Ray	Tree mallow	1b	

				SCOPE OF EXEMPTION FROM THE
NO.	SPECIES	COMMON NAME	CATEGORY / AREA	PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
	(= Lavatera arborea L.)			
206.	Malva verticillata L.	Mallow	4p	
207.	Malvastrum coromandelianum (L.) Garcke	Prickly malvastrum	q)	
208	Marsilea mutica Mett.	Nardoo, Australian water-clover		
209.	Melaleuca hypericifolia Sm.	Red-flowering tea tree	(13	
		Bottle brush tree, Broadleaf	a. 1b	
210.	Melaleuca quinquenervia (Cav.) S.T. Blake	paperbark tree	b. National Heritage Trees or National Monument Trees in terms of	
			are not listed.	
211.	Melia azedarach L.	Seringa	a. 1b t - 2 in urban armone	
			1	
!	Metrosidems excelse Sol. ex Gaertn			
212.	(= M tomentosa A Rich )	New Zealand Christmas tree	b. Not listed elsewhere.	
	(		<ul> <li>c. Sterile cultivars or hybrids are not listed.</li> </ul>	
213	Mimosa pigra L.	Giant sensitive plant	1b	
214.	Mirabilis jalapa L.	Four-o'clock, Marvel-of -Peru	d)	
215.	Montanoa hibiscifolia Benth.	Tree daisy	16	
			а. 3	
216	legie sinopp	White mulberry, Common	<ul> <li>Sterile cultivars or hybrids are not listed.</li> </ul>	
<u> </u>	in pour carrier	mulberry		
			consumption.	
			<ul> <li>a. 1b in KwaZulu-Natal, Limpopo and Mpumalanga.</li> </ul>	
24.7	Murraya paniculata (L.) Jack.	Oranga lassamina	Mpumalanga, but may not be transferred within these Provincial	
		O'ange cessarille	boundaries.	
			c. Not listed elsewhere.	
			<ul> <li>d. Sterile cultivars or hybrids are not listed.</li> </ul>	
218.	Myoporum insulare R.Br.	Manatoka, Boobyalla	3	
219.	Myoporum laetum G.Forst.	New Zealand manatoka	3	
220.	Myoporum montanum R.Br.	Manatoka	က	
231	Majorbultim squafform (Mell.) (lande	Dorrot's feather	12	
3 8	Mynophyman agranicani (van.) value.	Control motor miles	15	
777	Myriopriyitarri spicaturri L.	Spired water-inition		
23	Myrtikocactus geometrizans (Mart.)	Bilberry cactus	<u> </u>	

SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)													
CATEGORY / AREA		16	1b	2	<ul> <li>a. 1b in Eastern Cape, KwaZulu-Natal, Mpurnalanga, Limpopo and Western Cape.</li> <li>b. 3 in Free State, Gauteng, KwaZulu-Natal, North-West and Northern Cape.</li> <li>c. Sterile cultivars or hybrids are not listed.</li> </ul>	<ul> <li>a. 1b in Eastern Cape, KwaZulu-Natal, Mpumalanga, Limpopo and Western Cape.</li> <li>b. 3 in Free State, Gauteng, KwaZulu-Natal, North-West and Northern Cape.</li> <li>c. Sterile cultivars or hybrids are not listed.</li> </ul>	<ul> <li>a. 1b</li> <li>b. Sterile cultivars or hybrids are not listed.</li> </ul>	116	1b	ļ.	<b>q</b> )	la	3
COMMON NAME		White tussock	Nassella tussock	Watercress	Erect sword fern, Ladder sword fern	Sword fern, Boston sword fern	Oleander	Apple-of-Peru	Wild tobacco	Yellow water-lily	Yellow water lilies	Gringed waterlily, Yellow floating-heart	Wavy-leaf gaura
SPECIES	Console	Nasselfa tenuissima (Trin.) Barkworth (= Stipa fenuissima Trin.)	Nassella trichotoma (Nees) Hack. ex Arechav. (= Stipa trichotoma Nees)	Nasturtium officinale R.Br. (= Rorippa nasturtium- aquaticum (L.) Hayek)	Nephrolepis cordifolia (L.) C.Presl (= Polypodium cordifolium L.)	Nephrolepis exettata (L.) Schott (= Polypodium exettatum L.)	Nerium oleander L.	Nicandra physalodes (L.) Gaertn.	Nicotiana glauca Graham	Nuphar lutea (L.) Sm. (= N. minor Dumort., N. sericea Láng, N. spathulifera Rchb., N. tenella Rchb., N. umbilicalis Salisb., Nymphaea lutea L., N. umbilicalis Salisb., Nymphozanthus luteus (L.) Fernald, N. sericeus (Láng) Fernald, N. vulgaris Rich.)	Nymphaea mexicana Zucc.	Nymphoides pettata (S.G.Gmel.) Kuntze (= Limnanthemum petfatum S.G.Gmel.)	Oenothera sinuosa W.L.Wagner & Hoch (= Gaura sinuata Nutt. ex Ser.)
Š.		224.	225.	226.	227.	228.	229.	230.	231.	232	233.	234.	235.

T. (4 1100) 110 (40) (40) (40)	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 74(3) / PROHIBITION IN TERMS OF SECTION 71A(1)				listed. x human													
	CATEGORY / AREA	16	1b	1b	<ul> <li>a. 1b</li> <li>b. Spineless cactus pear cultivars and selections are not listed.</li> <li>c. The fruit of the sweet prickly pear is not listed if used for human consumption.</li> </ul>	1b	15	10	10	la	<ul> <li>a. 1a</li> <li>b. Spineless cultivars and selections are not listed.</li> </ul>	la	1b	1b	16	1b	1b	
	COMMON NAME	Jointed cactus	Orange tuna	Small round-leaved prickly pear	Mission prickly pear, Sweet prickly pear	Large-flowered prickly pear, Creeping prickly pear	Aaron's-beard prickly-pear	Yellow bunny-ears, Teddy- bear cactus	Cochineal prickly pear, Drooping prickly pear	Velvet bur cactus	Blue-leaf cactus	Bur cactus	Saucepan cactus, Large roundleaved prickly pear	Pest pear of Australia	Velvet opunita, Velvet tree-pear	Lesser broomrape, Clover broomrape	Blue broomrape, Branched broomrape	
	SPECIES	Opuntia aurantiaca Lindl.	Opuntia elata Link & Otto ex Salm-Dyck	Opuntia engelmannii Salm-Dyck ex Engelm. (= 0. lindheimeri Engelm., 0. tardospina Griffiths)	Opuntia ficus-indica (L.) MIII. (= O. megacantha Salm-Dyck)	Opuntia humifusa (Raf.) Raf. (O. compressa misapplied in South Africa)	Opuntia leucotricha DC.	Opuntia microdasys (Lehm.) Pfeiff.	Opuntia monacantha Haw. (O. vulgans misapplied in South Africa)	Opunita pubescens J.C.Wendl. ex Pfeiff. (= 0. pestifer Britton & Rose)	Opuntia robusta H.L.Wendl. ex Pfeiff.	Opuntia salmiana J. Parm. ex Pfeiff.	Opuntia spinulifera Salm-Dyck	Opunita stricta (Haw.) Haw. var. stricta and var. dillenii (Ker Gawl.) L.D.Benson (= 0. dillenii (Ker Gawl.)Haw.)	Opuntia tomentosa Salm-Dyck	Orobanche minor Sm.	Orobanche ramosa L.	Paraserianthes lophantha (Willd.)
	Š.	236.	237.	238.	239.	240.	241.	242.	243.	244.	245.	246.	247.	248.	249.	250.	251.	030

Š	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF
				SECTION 71A(1)
	(= Albizia lophantha (Willd.) Benth.)			
253.	Parkinsonia aculeata L.	Jerusalem thorn	16	
254	Parthenium hysterophorus L.	Famine weed	16	
255.	Paspalum quadrifarium Lam.	Tussock paspalum	18	
526.	Passiflora caerulea L.	Blue passion flower	1b	
257.	Passiffora edulis Sims	Purple granadilla, Passion fruit	<ul> <li>Not listed in urban areas in Eastern Cape, Gauteng, KwaZulu- Natal, Mpumalanga, Limpopo and North-West.</li> </ul>	
-			<ul> <li>c. Not listed elsewhere.</li> <li>d. The fruit of the purple granadilla is not listed if used for human consumption.</li> </ul>	
258.	Passiflora tripartita (Juss.) Poir. var. molitssima (Kunth) Holm-Niels. & P.Jorg. (= P. molitssima (Kunth) L.H.Bailey	Banana poka, Bananadilla	1b	
259.	Passiflora suberosa L.	Devil's pumpkin, Indigo berry	16	
260.	Passiflora subpettata Ortega	Granadina	10	
261.	Paulownia tomentosa (Thunb.) Steud. (= Paulownia imperialis Siebold & Zucc.)	Empress tree, Princess tree, Royal Paulownia	18	
262.	Peniocereus serpentinus (Lag. & Rodr.) N.P.Taylor	Serpent cactus, Snake cactus	1b	
263.	Pennisetum clandestinum Hochst. ex Chiov.	Kikuyu grass	a. 1b in Protected Areas and wetlands in which it does not already occur.     b. Not listed elsewhere.	
264.	Pennisetum purpureum Schumach.	Elephant grass, Napier grass	2	
265.	Pennisetum setaceum (Forssk.) Chiov.	Fountain grass	<ul> <li>a. 1b</li> <li>b. Sterile cultivars or hybrids are not listed.</li> </ul>	
266.	Pennisetum villosum R.Br. ex Fresen.	Feathertop	1b	
267.	Pereskia aculeata Mill.	Pereskia, Barbados gooseberry	1b	
	Persicaria capitata (BuchHam. ex D.Don) H Gross			
268.	(= Polygonum capitatum BuchHam. ex D.Don)	Knotweed	1b	
569	Phytolacca americana L.	American pokeweed	1b	

NO.	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
$\vdash$	(= P. decandra L.)			
-	Phytolacca dioica L.	Belhambra	3	
<u> </u>	Phytolacca octandra L.	Forest inkberry	1b	
_	Pinus canariensis C.Sm.	Canary pine	3	
<b></b>	Pirus elliotti Engelm. and hybrids, varieties and selections	Slash pine	<ul> <li>a. 2 for sterile specimens.</li> <li>b. 1b for non-sterile specimens.</li> </ul>	Exempted for an existing plantation of sterile specimens.
+	Pinus halepensis Mill.	Aleppo pine	3 in Eastern Cape, Free State and Western Cape.     Not listed elsewhere.	
-	Pinus patula Schiede ex Schltdl. & Cham. and hybrids, varieties and selections	Patula pine	2	Exempted for an existing plantation.
	Pinus pinasfer Aton and hybrids, varieties and selections	Cluster pine	<ul> <li>a. 2 for plantations and wind-rows.</li> <li>b. 1b elsewhere.</li> <li>c. National Heritage Trees or National Monument Trees in terms of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), are not listed.</li> </ul>	Exempted for an existing plantation outside of the Western Cape.
	Pinus radiata D.Don and hybrids, varieties and selections	Radiata pine, Monterey pine	<ul> <li>a. 2 for plantations and wind-rows.</li> <li>b. 1b elsewhere.</li> <li>c. National Heritage Trees or National Monument Trees in terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), are not listed.</li> <li>d. Specimens with a diameter (calliper width) greater than 400 mm at a height of 1000 mm at the date of publication of this Notice are not listed for urban areas in Cape Town, the Overberg District Council and Winelands District Council, except when in riparian areas where they remain Category. 1b.</li> </ul>	Exempted for an existing plantation outside of the Western Cape.
	Pinus roxburghii Sarg. and hybrids, varieties and selections (= P. longifolia Roxb. ex Lamb.)	Chir pine, Longifolia pine	2	Exempted for an existing plantation.
	Pinus taede L. and hybrids, varieties and selections	Lobiolly pine	2	Exempted for an existing plantation.
	Pistia stratiotes L.	Water lettuce	1b 1p	
	Pitosporum crassifolium Banks & Sol. ex A.Cunn.	Karo, Stiff-leaved cheesewood		1
+1	Pittosporum undulatum Vent.	Australian cheesewood, Sweet	10	

NO.	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) I PROHIBITION IN TERMS OF SECTION 71A(1)
		pittosporum		
283.	Plectranthus barbatus var. grandis (= P. comosus Sims)	'Abyssinian' coleus, Woolly plectranthus	ah	
			a. 1a Prince Edward Island.	
284.	Poa pratensis L.	Kentucky bluegrass	<ul> <li>b. 1b Marion Island.</li> <li>c. Not iisted on mainland or other off-shore islands.</li> </ul>	
285.	Polypodium aureum (L.) J.Sm.	Rabbits-foot fern		
286.	Pontederia cordata L.	Pickerel weed	1b	
287.	Populus alba L.	White poplar	2	
288.	Populus x canescens (Aiton) Sm.	Grey poplar, Matchwood poplar	2	
289.	Prosopis glandulosa Torr. var. torreyana (L.D. Benson) M.C. Johnst. and hybrids	Honey mesquite	<ul> <li>a. 1b in Eastern Cape. Free State, North-West and Western Cape.</li> <li>b. 3 in Northern Cape.</li> <li>c. The utilisation of the pods for fodder is not listed in the Northern Cape. Eastern Cape. Free State, North-West and Western Cape.</li> <li>d. Not listed elsewhere.</li> </ul>	
290.	Prosopis velutina Wooton and hybrids	Velvet mesquite	<ul> <li>a. 1b in Eastern Cape, Free State, North-West and Western Cape.</li> <li>b. 3 in Northern Cape.</li> <li>c. The utilisation of the pods for fodder is not listed in the Northern Cape, Eastern Cape, Free State, North-West and Western Cape.</li> <li>d. Not listed elsewhere.</li> </ul>	
291.	Prunus serotina Ehrh.	Black cherry	1b	
292.	Psidium cattleianum Sabine (= P. littorale Raddi var. longipes (O.Berg.) Fosberg	Strawberry guava	1b	
293.	Psidium guajava L.	Guava	<ul> <li>a. 2 for plantations in Eastern Cape, KwaZulu-Natal, Limpopo, Mpurmalanga and North-West.</li> <li>b. 3 elsewhere in Eastern Cape, Kwazulu-Natal, Limpopo, Mpurmalanga and North-West.</li> <li>c. The fruit of the guava is not listed if used for human consumption.</li> <li>d. Not listed elsewhere.</li> </ul>	
294.	Psidium guineense Sw.	Brazilian guava	1b	
295.	Psidium × durbanensis Baijnath ined.	Durban guava	1b	
296.	Pueraria montana (Lour.) Merr. var. lobata	Kudzu vine	la la	

Ö	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
	(Willd.) Maesen & S.M.Almeida (= P. Jobata (Wiltd.) Ohwi)			
297.	Pyracantha angustifolia (Franch.) C.K.Schneid.	Yellow firethorn	<ul> <li>a. 1b</li> <li>b. Sterile cultivars or hybrids are not listed.</li> </ul>	
298.	Pyracantha coccinea M.Roem.	Red firethorn	<ul> <li>a. 1b</li> <li>b. Sterile cultivars or hybrids are not listed.</li> </ul>	:
239	Pyracantha crenatoserrata (Hance) Rehder (= P. fortuneana misapplied)	Chinese firethorn, Broad leaf firethorn	a. 1b b. Sterile cultivars or hybrids are not listed.	
300.	Pyracantha crenulata (D.Don) M.Roem; including var. rogersiana (= P. rogersiana (A.B.Jacks.) Chitt.)	Himalayan firethorn	a. 1b b. Sterile cultivars or hybrids are not listed.	
301.	Pyracanitha koidzumii (Hayata) Rehder	Formosa firethorn	<ul> <li>a. 1b</li> <li>b. Sterile cultivars or hybrids are not listed.</li> </ul>	
302.	Rhus glabra L.	Scarlet sumach, Vinegar bush	3	
303.	Ricinus communis L.	Castor-oil plant	2	
304.	Rívina humilis L.	Rivina, Bloodberry	10	
305.	Robinia pseudoacacia L.	Black locust	1b	
306.	Rosa rubiginosa L. (= R. eglanteria L.)	Eglantine, Sweetbriar	10	
307.	Rubus cuneifolius Pursh and hybrid R. × proteus C.H.Stirt.	American bramble	1b	
308	Rubus ellipticus Sm.	Asian wild raspberry, Yellow Himalayan raspberry	1a	3
306	Rubus flagellaris Willd.	Bramble	1b.	
310.	Rubus fruticosus L. agg.	European blackberry	<ul> <li>a. 2</li> <li>b. The fruit of the European blackberry is not listed if used for human consumption.</li> </ul>	
311.	Rubus immixtus Gust.	Hogsback raspberry	10	
312.	Rubus niveus Thunb.	Ceylon raspberry, Mysore raspberry	1b	
313.	Rumex acefosella L.	Sheep sorrel, Red sorrel	<ul> <li>a. 1a Prince Edward and Marion Islands.</li> <li>b. Not listed on mainland or other off-shore islands.</li> </ul>	
314.	Rumex usambarensis (Dammer) Dammer (= R. nervosus Vahl var. usambarensis Dammer)	East African dock	1b	

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Š.	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
315.	Sagina procumbens L.	Birdeye pearlwort	<ul> <li>a. 1b Prince Edward and Marion Islands.</li> <li>b. Not listed on mainland or other off-shore islands.</li> </ul>	
316.	Sagittaria platyphylla (Engelm.) J.G.Sm.	Delta arrowhead, Slender arrowhead	18	
317.	Salsola kali L.	Tumbleweed	10	
318.	Salsola tragus L. (= S. australis R.Br.)	Russian tumbleweed	d)	
319.	Salvia tiliifolia Vahl	Lindenleaf sage	1b	
320.	Salvinia minima Baker	Small salvinia	1b	
321.	Salvinia molesta D.S.Mitch. and other species of the Family Salviniaceae	Kariba weed, Salvinia	1b	
322.	Sambucus canadensis L. (= S. nigra L. subsp. canadensis (L.) Bolli	Canadian elder	1b	
323.	Sambucus nigra L.	European elder	4b	
324.	Sasa ramosa (Makino) Makino & Shibata (= Arundinana vagans Gamble)	Dwarf yellow-striped bamboo	3	
325.	Schefflera actinophylla (Endi.) Harms	Australian cabbage tree, Queensland umbrella tree	<ul> <li>a. 1b in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga.</li> <li>b. Not listed elsewhere.</li> </ul>	
326.	Schefflera arboricola (Hayata) Merr.	Dwarf umbrella tree	<ul> <li>a. 3 in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga.</li> <li>b. Not listed elsewhere.</li> </ul>	
327.	Schefflera elegantissima (hort. Veitch ex Mast.) Lowry & Frodin (= Dizygotheca elegantissima (hort. Veitch ex Mast.) R. Vig. & Guillaumin	False aralía	a. 3 in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga. b. Not listed elsewhere.	
328.	Schinus terebinthifolius Raddi	Brazilian pepper tree	<ul> <li>a. 1b in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga.</li> <li>b. 3 in Free State, Gauteng, North-West, Northern Cape and Western Cape.</li> </ul>	
329.	Senna bicapsularis (L.) Roxb. (= Cassia bicapsularis L.)	Rambling cassia	1b	
330.	Senna didymobotrya (Fresen.) H.S.Irwin & Barneby (= Cassia didymobotrya Fresen.)	Peanut butter cassia	a. 1b in Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga and Western Cape.     b. Not listed elsewhere.	
331.	Senna hirsuta (L.) H.S.Irwin & Barneby (= Cassia hirsuta L.)	Hairy senna, Woolly senna	1b	

-	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)					alanga. n oopo and									umalanga.	alanga.	nalanga. nd
	CATEGORY / AREA	1b	15	15	1b	<ul> <li>a. 3 in Eastern Cape, KwaZuiu-Natal, Limpopo and Mpumalanga.</li> <li>b. The fruit of the tree tomato is not listed if used for human consumption, in the Eastern Cape, KwaZuiu-Natal, Limpopo and Mpumalanga.</li> <li>c. Not listed elsewhere.</li> </ul>	1b	1b	db	1b	db	1b	2	13	<ul> <li>a. 1b in Eastern Cape and Western Cape.</li> <li>b. 3 in Free State, Gauteng, KwaZulu-Nataf, Limpopo, Mpumalanga.</li> <li>North-West and Northern Cape.</li> </ul>	<ul> <li>a. 3 in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga.</li> <li>b. Not listed elsewhere.</li> </ul>	<ul> <li>a. 1b in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga.</li> <li>b. 3 in Free State, Gauteng, North-West, Northern Cape and</li> </ul>
	COMMON NAME	Stinking weed, Wild coffee	Climbing cassia, Easter cassia	Arsenic bush, Smooth senna	Red sesbania	Tree tomato	Giant devil's fig	Silver-leaf bitter apple	Bugweed	Jerusalem cherry	Potato creeper	Wild tomato, Dense- thorned bitter apple	Johnson grass, Aleppo grass	Smooth cordgrass, Salt-water cordgrass	Spanish broom	African flame tree	Singapore daisy
	SPECIES	Senna occidentalis (L.) Link (= Cassia occidentalis L.)	Senna pendula (Willd.) H.S.Irwin & Barneby var. glabrata (Vogel) H.S.Irwin & Barneby (= Cassia colutecides Collad.)	Senna septemtrionalis (Vīv.) H.S.Irwin & Barneby (= Cassia floribunda sensu Brenan, C. Iaevigata Willd.)	Sesbania punicea (Cav.) Benth.	Solanum betaceum Cav. (= Cyphomandra betacea {Cav.} Sendtn.)	Sofanum chrysotrichum Schltdl. (S. hispidum misapplied in South Africa)	Solanum elaeagnifolium Cav.	Solanum mauritianum Scop.	Solanum pseudocapsicum L.	Solanum seaforthianum Andrews	Sofanum sisymbriifolium Lam.	Sorghum halepense (L.) Pers.	Spartina atterniflora Loisel.	Spartium junceum L.	Spathodea campanulata P.Beauv.	Sphagneticola trilobata (L.) Pruski (= Thelechitonia trilobata (L.) H.Rob. &
	Ö	332.	333.	334.	335.	336.	337.	338.	339.	8	<u>¥</u>	342.	343.	₹	345.	346.	347.

SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 24 A.4.3.	SECTION (17(1)			e islands. mpopo and Mpumalanga. n Cape, KwaZulu-Natal, nt be transferred within	used for human									
CATEGORY I AREA	60	8	1	a. 1b in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga. b. 2 for breeding in nurseries in in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga, Limpopo and Mpumalanga, but may not be transferred within these Provincial boundaries. c. Not listed elsewhere.		3	1b	16	11	11	10	1a	1b	
COMMON NAME	Blue snakeweed, Cayenne snakeweed	Pink snakeweed	Common chickweed	Goose foot, Arrow- head vine	Jambolan	Rose apple	Athel tree, Desert tamarisk	Chinese tamarisk	French tamarisk	Pink tamanisk	Yellow bells	Pine cone cactus, Paper- spine cholla	Yellow oleander	
SPECIES	Stachytarpheta cayennensis (Rich.) Vahl (= S. udinifolia Sims)	Stachytarpheta mutabilis (Jacq.) Vahl	Stellaria media (L.) VIII.	Syngonium podophyllum Schott	Syzygium cumini (L.) Skeels	Syzvajum jambos (L.) Alston	Tamarix aphylia (L.) H.Karst. Not to be confused with indigenous Tamarix usneoides E.Mey. ex Bunge	Tamarix chinensis Lour. Not to be confused with indigenous Tamarix usneoides E.Mey. ex Bunge	Tamarix gallica L. Not to be confused with indigenous Tamarix usneoides E.Mey. ex Bunge	Temarix ramosissima Ledeb. Not to be confused with indigenous Temarix usneoides E.Mey. ex Bunge	Tecoma stans (L.) Juss. ex Kunth	Tephrocactus articulatus (Pfeiff.) Backeb. (= Opuntia articulata (Pfeiff.) D.R.Hunt	Thevetia peruviana (Pers.) K.Schum. (= T. nenifolia Juss. ex Steud.)	Timiana finit (Benth ) Krintza
Š.	348	349	350.	351.	352.	353.	354.	355.	356.	357.	358.	359.	360.	,

Ş	OHOLOGO	DAM MOUNT	A TOO COTAC	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) /
	2000			PROHIBITION IN TERMS OF SECTION 71A(1)
362.	Tithonia diversifolia (Hemsl.) A.Gray	Mexican sunflower	db d	
363.	Tithonia rotundifolia (Mill.) S.F.Blake	Red sunflower	1b	
364.	Toona ciliata M.Roem. (= Cedrela toona Roxb. ex Willd.)	Toon tree	3	
365.	Toxicodendron succedaneum (L.) Kuntze (= Rhus succedanea L.)	Wax tree	1b	
366.	Tradescantia fluminensis Vell.	Wandering Jew	1b	
367.	Tradescantia zebrina hort. ex Bosse (= Zebrina pendula Schnizl.)	Wandering Jew	1b	
368.	Triplaris americana L.	Ant tree, Triplaris	18	
369.	Tropaeolum speciosum Poepp. & Endl.	Chilean flame creeper, Flame nasturtium	3	
370.	Viex europaeus L.	European gorse	1a	
371.	Verbena bonariensis L.	Wild verbena, Tall verbena, Purple top	1b	
372.	Verbena brasiliensis Vell.	Brazilian verbena	1b	
373.	Verbena rigida Spreng. (= V. venosa Gillies & Hook.)	Veined verbena	1b	
374.	Vinca major L.	Greater periwinkle	a. 1b b. Sterile cultivars or hybrids are not listed.	
375.	Vinca minor L.	Lesser periwinkle	<ul> <li>a. 1b</li> <li>b. Sterile cultivars or hybrids are not listed.</li> </ul>	
376.	Vitex trifolia L.	Indian three-leaf vitex	<b>4</b> p	
377.	Wigandia urens (Ruiz & Pav.) Kunth var. caracasana (Kunth) D.N.Gibson (= W. caracasana Kunth)	Wigandia	3	
378.	Xanthium spinosum L.	Spiny cocklebur	q)	
379.	Xanthium strumanum L.	Large cocklebur	- tb	

List 2: National List of Invasive Marine Plant Species

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SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) I PROHIBITION IN TERMS OF SECTION 71A(1)
Asparagopsis armata Harvey	Harpoon weed	3	
Asparagopsis faxiformis (Delile) Trevisan de Saint-Léon	Pleasing seaweed	3	
Schimmelmannia elegans Baardseth	Red algae	16	
Undaria pinnatifida (Harvey) Suringar	Asian kelp	16	

List 3: National List of Invasive Mammal Species

9				SCOPE OF EXEMPTION FROM THE PROVISIONS OF
į	SPECIES	COMMON NAME	CALEGORY AREA	SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
<u> </u>	Addax nasomaculatus (de Blainville, 1816)	Addax	2	
2.	Aepyceros melampus petersi Bocage, 1879	Black-faced impala		
3.	Ammotragus lervia (Pallas, 1777)	Barbary sheep	2	
4.	Antilope cervicapra (Linneaus, 1758)	Indian blackbuck	2	
5.	Axis axis (Erxleben, 1777)	Axis deer (Chital)	2	
Ġ	Axis porcinus (Zimmermann, 1780)	Hog deer	2	
7.	Boselaphus tragocamelus (Pallas, 1766)	Nilgai	2	
oci 💮	Capra hircus Linnaeus, 1758	Feral goat	a. 1a for off-shore islands. b. Not listed elsewhere.	
9	Cervus elaphus Linnaeus, 1758	Red deer	2	
9	Cervus nippon Temminick, 1838	Sika deer	2	
11.	Dama dama (Linnæus, 1758)	Fallow deer	2	
12.	Diceros bicornis michaeli Zukowsky, 1965	Black rhinoceros (Kenya)	2	
13.	Elaphurus davidianus Milne-Edwards, 1866	Père David's deer	2	
;			[	
<del>4</del> ,	Erythrocebus paras (Schreber, 1775)	Patas monkey	b. 1b elsewhere.	
15.	Felis catus Linnaeus, 1758	Domestic cat	1	
16.	Hemitragus jemlahicus (C.H. Smith, 1826)	Himalayan tahr	1	
17.	Hippotragus equinus koba (Gray, 1872)	Western roan	2	
				Prohibited for Restricted Activity
9	11 of the other desired and a second of the	4	ç	other way propagating any
<u>.</u>	nyaroulaens riyaroulaens (Lilliaeus, 1100)	capyodia	Ŋ	specimen of a listed invasive species, or causing it to militials."
19.	Kobus leche kafuensis Haltenorth, 1963	Kafue lechwe	2	
20.	Kobus ellipsiprymnus crawshayi (P. L. Sclater, 1894)	Crawshay's waterbuck (Zambia)	2	,
21.	Kobus ellipsiprymnus defassa (Rüppell, 1835).	Defassa waterbuck (Kenya)	2	

				TOTAL NOTIFICATION
				SCOPE OF EXEMPTION FROM
ġ	SPECIES	COMMON NAME	CATEGORY / AREA SECTIC	SECTION 74(3) / PROHIBITION
			INTER	IN TERMS OF SECTION 71A(1)
22.	Kobus leche leche Gray, 1850	Red lechwe		
23.	Kobus vardonii (Livingstone, 1857)	Puku	2	
42	Madoqua kirkii Günther, 1880	Damara dik-dik	3	
25.	Macaca fascicularis Raffles, 1821	Crab-eating macaque	2	
26.	Mus musculus Linnaeus, 1758	House mouse	a. 1b for off-shore islands. b. Not listed elsewhere.	
			Prohibit	Prohibited for Restricted Activity (c): "Growing breeding or in any
27.	Myocastor coypus (Molina, 1782)	Coypu	other 2	other way propagating any
			eds en	speciner of a fisted firstweet species, or causing it to multiply."
28	Oryctolagus cuniculus (Linnaeus, 1758)	European rabbit	a. 1b for off-shore islands. b. Not listed elsewhere.	
প্র	Oryx dammah (Crefzschmar, 1827)	Oryx, scimitar-homed	2	
30	Ovis aries musimon Pallas, 1762	Mouflon	2	
31.	Rattus norvegicus (Berkenhout, 1769)	Brown rat	a. 1b for off-shore islands. b. Not listed elsewhere.	
32.	Rattus rattus (Linnaeus, 1758)	House rat	a. 1b for off-shore islands. b. Not listed elsewhere.	
33.	Rattus tanezumi Temminck, 1844	Asian house rat	a. 1b for off-shore islands. b. Not listed elsewhere.	
뚌.	Rusa unicolor (Kerr, 1792)	Sambar deer	2	
35.	Sciurus carolinensis Gmelin, 1788	Grey squirrel	a. 1a in KwaZulu-Natal. b. 3 elsewhere.	
36.	Sus scrofa Linnaeus, 1758	Feral pig	a. 1b b. Not listed when not feral.	
37.	Tragelaphus derbianus (Gray, 1847)	Derby eland	2	
38.	Tragelaphus euryceros (Ogilby, 1837)	Bongo	1a	
39.	Tragelaphus imberbis (Blyth, 1869)	Lesser kudu	la	
40	Tragelaphus spekii P.L. Sclater, 1863	Sitatunga	2	
<del>1</del>	All hybrids of mammal species or sub-species listed in this Notice	Notice	a. 1a     b. 2 for hybrids of western roan for back-breeding     purposes.	

List 4: National List of Invasive Bird Species

Acridotheres cristatellus (Linnaeus, 1758)         Crested mynah           Acridotheres fuscus Wagler, 1827         Jungle mynah           Acridotheres tristis (Linnaeus, 1766)         Indian mynah           Alectoris chukar (J. E. Gray, 1830)         Chukar partridge           Anas platyrhynchos (Mallard)         Mallard duck           Carduelis carduelis (Linnaeus, 1758)         European goldfinch           Carduelis flammea (Linnaeus, 1758)         European goldfinch           Carduelis flammea (Linnaeus, 1758)         Common redpoll           Cofinus virginianus (Linnaeus, 1758)         Common wood-pigeon           Columba palumbus Linnaeus, 1758         Common wood-pigeon           Columba palumbus (Linnaeus, 1758)         Rock dova, Feral pigeon           Columba palumbus (Eyton, 1838)         Plumed whistling duck           Abordrocygna eytoni (Eyton, 1838)         Plumed whistling duck           Fringilka coelebs Linnaeus, 1758         Chaffinch           S. Fringilka coelebs Linnaeus, 1758         Chaffinch           Abolothrus bonariensis (Gmelin, 1789)         Shiny cowbird           Abolothrus bonariensis (Gmelin, 1789)         Shiny cowbird           Abordrocygna eytoni (Pallas, 1767)         West African helmeted guineafowl           Aboser domesticus (Linnaeus, 1758)         House sparrow		SECTION 71A(1)
Jungle mynal Indian mynat Indian mynat Chukar partri Mallard duck European gr Common red Common wo Northern bob Common wo Common wo Northern bob Common wo Common wo Common wo Common wo Soft good Northern bob Common wo Common wo Common wo Northern bob Northern bob Common wo Northern bob Nor	2	
Acrototheres tristis (Linnaeus, 1766) Indian mynat Alectoris chukar (J. E. Gray, 1830) Chukar partri Anas platyrhynchos (Mallard) Mallard duck Carduelis carduelis (Linnaeus, 1758) European go Carduelis flammea (Linnaeus, 1758) European go Carduelis flammea (Linnaeus, 1758) Common red Colinus virginianus (Linnaeus, 1758) Common red Colinus virginianus (Linnaeus, 1758) Common wo Colinus virginianus (Linnaeus, 1758) Common wo Colinus virginianus (Linnaeus, 1758) Common wo Colinus solendens Vieillot, 1817 Indian house Corvus solendens Vieillot, 1817 Indian house Corvus solendens Vieillot, 1838) Madagascar Fringilia coelebs Linnaeus, 1758 Chaffinch Molothrus bonariensis (Gmelin, 1789) Shiny cowbir Munida meleagris galeata (Pallas, 1767) West African Passer domesticus (Linnaeus, 1758) House sparra	2	
Alectoris chukar (J. E. Gray, 1830)  Anas platyrthyrichos (Mallard).  Carduelis carduelis (Linnaeus, 1758)  Carduelis carduelis (Linnaeus, 1758)  Carduelis flammea (Linnaeus, 1758)  Carduelis flammea (Linnaeus, 1758)  Colinus virginianus (Linnaeus, 1758)  Colinus virginianus (Linnaeus, 1758)  Columba palumbus Linnaeus, 1758  Columba palumbus Linnaeus, 1758  Columa livia (Graelin, 1789)  Columa livia (Graelin, 1839)  Columa livia (Graelin, 1839)  Columa livia (Graelin, 1838)  Columa livia (Graelin, 1758)  Columa livia (Graelin, 1758)  Madagascar  Fringilia coelebs Linnaeus, 1758  Chaffinch  Molothrus bonariensis (Graelin, 1789)  Numida meleagris galeata (Pallas, 1767)  West African  Passer domesticus (Linnaeus, 1758)  House sparre	8	
Anas platyntynichos (Mallard).  Carduelis carduelis (Linnaeus, 1758).  Carduelis carduelis (Linnaeus, 1758).  Carduelis chloris (Linnaeus, 1758).  Carduelis flammea (Linnaeus, 1758).  Colinus virginianus (Linnaeus, 1758).  Columba patumbus Linnaeus, 1758.  Columba patumbus Linnaeus, 1758.  Columa livia (Gmelin, 1789).  Columa livia (Gmelin, 1789).  Columa livia (Gmelin, 1838).  Plumed whis Foudia madagascariensis (Linnaeus, 1758).  Madagascar Fringilia coelebs Linnaeus, 1758.  Chaffinch  Molothrus bonariensis (Gmelin, 1789).  Shiny cowbir.  Numida meleagris galeata (Pallas, 1767).  West African  Passer domesticus (Linnaeus, 1758).  House sparre	2 on mainland. 1b on off-shore islands.	
Carduelis carduelis (Linnaeus, 1758) European go Carduelis chloris (Linnaeus, 1758) Common red Carduelis flammea (Linnaeus, 1758) Common red Colinus virginiarus (Linnaeus, 1758) Northem bob Columb pelumbus Linnaeus, 1758 Common wo Columa livia (Gmelin, 1789) Rock dove, F Corvus splendens Vieillot, 1817 Indian house Corvus splendens Vieillot, 1817 Indian house Corvus splendens Vieillot, 1818 Indian house Foudia madagascariensis (Linnaeus, 1766) Madagascar Fringilia coelebs Linnaeus, 1758 Chaffinch Molothrus bonariensis (Gmelin, 1789) Shiny cowbir Numida meleagris galeata (Pallas, 1767) West African Passer domesticus (Linnaeus, 1758) House sparre		
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Carduelis flammea (Linnaeus, 1758) Common red Colinus virginianus (Linnaeus, 1758) Northem bob Columba palumbus Linnaeus, 1758 Common wo Columba ilvia (Gmelin, 1789) Rock dove, F Corvus splendens Vieillot, 1817 Indian house Corvus splendens Vieillot, 1817 Indian house Dendrocygna eytoni (Eyton, 1838) Plumed whis Foudia madagascariensis (Linnaeus, 1766) Madagascar Fringilla coelebs Linnaeus, 1758 Chaffinch Molothrus bonariensis (Gmelin, 1789) Shiny cowbir Numida meleagris galeata (Pallas, 1767) West African Passer domesticus (Linnaeus, 1758) House sparre	2	
Colinus virginianus (Linnaeus, 1758) Northern bob Columb palumbus Linnaeus, 1758 Common wo Columa livia (Gmelin, 1789) Rock dove, F Corvus splendens Vieillot, 1817 Indian house Dendrocygna eytoni (Eyton, 1838) Plumed whis Foudia madagascariensis (Linnaeus, 1766) Madagascar Fringilla coelebs Linnaeus, 1758 Chaffinch Molothrus bonariensis (Gmelin, 1789) Shiny cowbir Numida meleagris galeata (Pallas, 1767) West African Passer domesticus (Linnaeus, 1758) House sparre		
Columba palumbus Linnaeus, 1758 Common wo Columa livia (Gmelin, 1789) Rock dove, F Corvus splendens Vieillot, 1817 Indian house Dendrocygna eytoni (Eyton, 1838) Plumed whis Foudia madagascariensis (Linnaeus, 1766) Madagascar Fringilla coelebs Linnaeus, 1758 Chaffinch Molothrus bonariensis (Gmelin, 1789) Shiny cowbir Numida meleagris galeata (Pallas, 1767) West African Passer domesticus (Linnaeus, 1758) House sparre	iii 2	
Columa livia (Gmelin, 1789) Rock dove, F Corvus splendens Vieillot, 1817 Indian house Dendrocygna eytoni (Eyton, 1838) Plumed whis Foudia madagascariensis (Linnaeus, 1766) Madagascar Fringilla coelebs Linnaeus, 1758 Chaffinch Molothrus bonariensis (Gmelin, 1789) Shiny cowbir Numida meleagris galeata (Pallas, 1767) West African Passer domesticus (Linnaeus, 1758) House sparre	2	
Corvus splendens Vieillot, 1817 Indian house Dendrocygna eytoni (Eyton, 1838) Plumed whis Foudia madagascariensis (Linnaeus, 1766) Madagascar Fringilla coelebs Linnaeus, 1758 Chaffinot Molothrus bonariensis (Gmelin, 1789) Shiny cowbir Numida meleagris galeata (Pallas, 1767) West African Passer domesticus (Linnaeus, 1758) House sparre	3	
Dendrocygna eytoni (Eyton, 1838)         Plumed whis           Foudia madagascariensis (Linnaeus, 1756)         Madagascar           Fringilla coelebs Linnaeus, 1758         Chaffinch           Molothrus bonariensis (Gmelin, 1789)         Shiny cowbir           Numida meleagris galeata (Pallas, 1767)         West African           Passer domesticus (Linnaeus, 1758)         House sparr	18	
Foudia madagascariensis (Linnaeus, 1766)         Madagascar           Fringilla coelebs Linnaeus, 1758         Chaffinch           Molothrus bonariensis (Gmelin, 1789)         Shiny cowbir           Numida meleagris galeata (Pallas, 1767)         West African           Passer domesticus (Linnaeus, 1758)         House sparr	1b	
Fingila coelebs Linnaeus, 1758         Chaffinch           Molothrus bonariensis (Gmelin, 1789)         Shiny cowbir           Numida meleagris galeata (Pallas, 1767)         West African           Passer domesticus (Linnaeus, 1758)         House sparr	3	
Molothrus bonariensis (Gmelin, 1789) Shiny cowbir Numida meleagris galeata (Pallas, 1767) West African Passer domesticus (Linnaeus, 1758) House sparre	2	
Numida meleagris galeata (Pallas, 1767) West African Passer domesticus (Linnaeus, 1758) House sparre	3	
Passer domesticus (Linnaeus, 1758) House sparro	l guineafowl 3	
	8	
19. Psittacula krameri (Scopoli, 1769) Rose-ringed parakeet	2	
)} Red-vented	2	
21. Pycnonofus jocosus (Linnaeus, 1758) Red-whiskered bulbul	2	
22. Sicalis flaveola (Linnaeus, 1766)	2	
23. Sturnus vulgaris Linnaeus, 1758 Eurasian/Common starling	rling 3	
24. All hybrids between indigenous and introduced species	18	

List 5: National List of Invasive Reptile Species

				SCOPE OF EXEMPTION FROM THE PROVISIONS OF
Š.	SPECIES	COMMON NAME	CATEGORY / AREA	SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
	Anolis carolinensis Voigt, 1832	Green anole	<ul> <li>a. 2 in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga.</li> <li>b. Not listed elsewhere.</li> </ul>	
- 2	Apakone species Rafinesque, 1832	Soft-shell terrapins	2	
က်	Basiliscus plumifrons (Cope, 1876)	Plumed basilisk ,Green baslisk	<ul> <li>a. 2 in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga.</li> <li>b. Not listed elsewhere.</li> </ul>	
4	Bitis gabonica (A.M.C. Duméril, Bibron & A.H.A. Duméril, 1854) x Bitis sp.	Gaboon adder x Any other Bitis species	1b	
5.	Basiliscus vittatus Wiegmann, 1828	Basilisk, Brown basilisk	2	
တ်	Bitis nasicomis (Shaw, 1792)	Rhinoceros viper, River jack	<ul> <li>a. 2 in KwaZulu-Natal, Mpumalanga, Eastern Cape, Gauteng and Limpopo.</li> <li>b. Not listed elsewhere.</li> </ul>	
7.	Bitis gabonica rhinoceros (Schlegel, 1855)	Gabino viper, West African gaboon viper	•	
<b>∞</b> i	Boa constrictor Linnaeus, 1758	Common boa	<ul> <li>a. 2 in KwaZulu-Natal, Mpumalanga, Eastern Cape, Gauteng and Limpopo.</li> <li>b. Not listed elsewhere.</li> </ul>	
ග්	Calotes versicofor (Daudin, 1802)[	Changeable lizard	1b	
5.	Centrochelys sulcata Gray, 1873	Spur-thighed tortoise, African spurred tortoise	2	
=	Chamaeleo jacksonii Boulenger, 1896	Jackson's chameleon	<ul> <li>a. 2 in Eastern Cape, KwaZufu-Natal, Limpopo and Mpumalanga.</li> <li>b. Not listed elsewhere.</li> </ul>	
12.	Chameeleo melleri (Gray, 1865)	Meller's chameleon	<ul> <li>a. 2 in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga.</li> <li>b. Not listed elsewhere.</li> </ul>	
13.	Chelydra serpentina (Linnaeus, 1758)	Common snapping turtle	2	
14.	Crotalus species Linnaeus, 1758	Rattlesnakes	2	
5.	Cuora species Gray, 1856	Chinese/ Asian box terrapins	16	
16.	Emys orbicularis (Linnaeus, 1758	European pond turtle	115	

 <u>S</u>	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) /
				PROHIBITION IN TERMS OF SECTION 71A(1)
17.	Furcifer oustaleti (Mocquard, 1894)	Oustalet's chameleon	2	
18.	Furcifer pardalis (Cuvier, 1829	Panther chameleon	2	
19.	Gehyra mutilata (Wiegmann, 1834)	Stump-tailed gecko	3	
29.	Gekko gecko (Linnaeus, 1758)	Tokay gecko	2	
21.	Iguana iguana (Linnaeus, 1758)	Green iguana	<ul> <li>a. 2 in KwaZulu-Natal, Mpumalanga, Eastern Cape, Gauteng and Limpopo.</li> <li>b. Not listed elsewhere.</li> </ul>	
22.	Lepidodectylus lugubris (Duméril and Bibron, 1836)	Mourning gecko; Common smooth- scaled gecko	16	
23.	Macrochelys temminckii Troost in Harlan, 1835)	Aligator snapper turtle	2	
24.	Morelia emethistina (Schneider, 1801)	Amethistine python	<ul> <li>a. 2 in Eastern Cape, KwaZuiu-Natal, Limpopo and Mpumalanga.</li> <li>b. Not listed elsewhere.</li> </ul>	
25.	Morelia spilotes (Lacépède, 1804)	Carpet/diamond python	2	
26.	Pantherophis guttatus guttatus	Comsnake	3	
27.	Pelodiscus species (Wiegmann, 1835)	Chinese softshell terrapins	16	
28.	Python molurus (Linnaeus, 1758)	Indian/Burmese python, Asiatic rock python	2	
29.	Python sebae (Gmelin, 1788)	North African python	<ul> <li>a. 2 in KwaZulu-Natal, Limpopo, Mpumalanga, Eastern Cape and Gauteng.</li> <li>b. Not listed elsewhere.</li> </ul>	
30.	Python natalensis x Python molurus	Southern African python x Burmese python	1a	
31.	Trachemys species	Turtles / Sliders native to the Americas	16	
32.	Trioceros (Chamaeleo) jacksonii Boulenger, 1896	Jackson's chameleon	<ul> <li>a. 2 in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga.</li> <li>b. Not listed elsewhere.</li> </ul>	
33.	Trioceros (Chamaeleo) melleri (Gray, 1865)	Meller's chameleon	<ul> <li>a. 2 in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga.</li> <li>b. Not listed elsewhere.</li> </ul>	
34.	Varanus salvator (Laurenti, 1768)	Indonesian/Common water monitor	3	

NO.	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
35.	Unless otherwise listed, all hybrid species of reptiles	nless otherwise listed, all hybrids between indigenous and introduced secies of reptiles	45	

List 6: National List of Invasive Amphibian Species

Ö	SPECIES	COMMON NAME	CATEGORY / AREAS	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 714(1)
<del>-</del> -	Amietophrymus gutturalis (Power, 1927)	Guttural (African common) toad	a. 1b in Western Cape. b. Not listed elsewhere.	
. 2.	Dendrobatidae species	Poison arrow (or dart) frogs	2	
<sub>ب</sub> ي	Hyperolius marmoratus Rapp, 1842	Painted reed frog	a. 3 in Western Cape. b. Not listed elsewhere.	
4	Pelophylax species	Marsh frog; Edible frog; Pool frog	1b	
5.	Triturus camifex (Laurenti, 1768)	Italian crested newt	1b	
ဖ	Xenopus laevis Daudin, 1802 x Xenopus gilli Rose & Hewitt, 1927	African clawed toad x Cape (Gill's) piatanna	16	
7.	Unless otherwise listed, all hybrids between indigenous and	enous and introduced species of amphibians	1b	

List 7: National List of Invasive Fresh-water Fish Species

Š	SPECIES	COMMON	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71(1)
<del>-</del>	Ctenopharyngodon idella (Valenciennes, 1844)	Grass carp	a. 1b in National Parks, Provincial Reserves, Mountain Catchment Areas and Forestry Reserves declared in terms of the Protected Areas Act. b. 2 for breeding of triploid grass carp. c. 3 in all other discrete catchment systems in which it occurs.	<ul> <li>a. The transfer or release of a specimen of grass carp from one discrete catchment system in which it occurs, to another discrete catchment system in which it does not occur, or, from within a part of a discrete catchment system where it does occur to another part where it does not occur as a result of a natural or artificial barrier, is prohibited.</li> <li>b. Catch and release of grass carp is exempted in discrete catchment systems in which it occurs.</li> </ul>
23	Ctenopharyngodon idella (Valenciennes in Cuvier & Valenciennes, 1844)	Triploid grass carp	<ul> <li>a. Triploid grass carp is not listed for dams within discrete catchment systems in which it occurs.</li> <li>b. 2 for release of triploid grass carp into dams in discrete catchment systems in which it does not occur.</li> <li>c. 2 for release of triploid grass carp into rivers, wetlands, natural lakes and estuaries in which it occurs.</li> <li>d. 3 in all rivers, wetlands, natural lakes and estuaries in which it occurs.</li> </ul>	<ul> <li>a. The transfer or release of a specimen of triploid grass carp from one discrete catchment system in which it occurs, to a river, wetland, natural lake or estuary in another discrete catchment system in which it does not occur, or, from within a part of a discrete catchment system where it does occur to a river, wetland, natural lake or estuary in another part where it does not occur as a result of a natural or artificial barrier, is prohibited.</li> <li>b. Triploid grass carp listed as Category 2 are exempted for a period of two years from the date upon which this notice takes effect, from requiring a Permit for any restricted activity in terms of the Act or Alien and Invasive Species Regulations, 2014, provided a person is in possession of a valid Provincial Permit issued in terms of Provincial legislation where required for triploid grass carp.</li> <li>c. Catch and release of triploid grass carp is exempted in discrete catchment systems in which it occurs.</li> </ul>
ю́	Cyprinus carpio (Linnaeus, 1758)	Common carp	a. 1b in National Parks, Provincial Reserves, Mountain Catchment Areas and Forestry Reserves declared in terms of the Protected Areas Act. b. 2 for release into a dam within a discrete catchment system in which it occurs. c. 3 in all rivers, wetlands, natural lakes and estuaries in which it occurs. d. Subject to b, common carp is not listed for dams within discrete catchment systems in which it occurs.	<ul> <li>a. The transfer or release of a specimen of common carp from one discrete catchment system in which it occurs, to another discrete catchment system in which it does not occur; or, from within a part of a discrete catchment system where it does occur to another part where it does not occur as a result of a natural or artificial barrier, is prohibited.</li> <li>b. Release of common carp in National Parks, Provincial Reserves, Mountain Catchment Areas and Forestry Reserves declared in terms of the Protected Areas Act is prohibited.</li> <li>c. The release of common carp in any rivers, wetlands, natural lakes or estuaries is prohibited.</li> <li>d. Common carp are exempted listed as category 2 for a period of two years from the date upon which this notice takes effect, from requiring a Permit for any restricted activity in terms of the Act or Alien and Invasive Species Regulations, 2014, provided a person is in possession of a valid Provincial Permit issued in terms of Provincial legislation where required for common carp.</li> <li>e. Catch and release of common carp is exempted in discrete catchment systems in which it occurs. Ornamental koi carp are exempt from requiring a permit for all restricted activities except for restricted activity 'g' in Notice 1: "Releasing any specimen of a listed invasive species."</li> </ul>

į Š	SPECIES	COMMON	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
4	Gambusia affinis (Baird and Girard, 1853)	Mosquito-fish	<ul> <li>a. 1b in National Parks, Provincial Reserves, Mountain Catchment Areas and Forestry Reserves declared in terms of the Protected Areas Act.</li> <li>b. 3 for all other discrete catchment systems in which it occurs.</li> <li>c. 2 for breeding for the purpose of feeding stock for zoos and animal breeders.</li> </ul>	<ul> <li>a. The transfer or release of a specimen of mosquito-fish from one discrete catchment system in which it occurs, to another discrete catchment system in which it does not occur, or, from within a part of a discrete catchment system where it does occur to another part where it does not occur as a result of a natural or artificial barrier, is prohibited.</li> <li>b. Catch and release of mosquito-fish is exempted in discrete catchment systems in which it occurs.</li> </ul>
ശ്	Hypophthalmichthys molitrix (Valenciennes, 1844)	Silver carp	<ul> <li>a. 1b in National Parks, Provincial Reserves, Mountain Catchment Areas and Forestry Reserves declared in terms of the Protected Areas Act.</li> <li>b. 3 in all other discrete catchment systems in which it occurs.</li> </ul>	<ul> <li>a. The transfer or release of a specimen of silver carp from one discrete catchment system in which it occurs, to another discrete catchment system in which it does not occur, or, from within a part of a discrete catchment system where it does occur to another part where it does not occur as a result of a natural or artificial barrier, is prohibited.</li> <li>b. Catch and release of silver carp is exempted in discrete catchment systems in which it occurs.</li> </ul>
ဖ်	Lepomis macrochirus (Rafinesque, 1819)	Biuegill	<ul> <li>a. 1b in National Parks, Provincial Reserves, Mountain Catchment Areas and Forestry Reserves declared in terms of the Protected Areas Act.</li> <li>b. 3 for all other discrete catchment systems in which it occurs.</li> </ul>	<ul> <li>a. The transfer or release of a specimen of bluegill from one discrete catchment system in which it occurs, to another discrete catchment system in which it does not occur, or, from within a part of a discrete catchment system where it does occur to another part where it does not occur as a result of a natural or artificial barrier, is prohibited.</li> <li>b. Catch and release of bluegill is exempted in discrete catchment systems in which it occurs.</li> </ul>
7.	Micropterus dolomieu (Lacepède, 1802)	Small-mouth bass	a. 1b in National Parks, Provincial Reserves, Mountain Catchment Areas	<ul> <li>The transfer or release of a specimen of a listed bass species from one discrete catchment system in which it occurs, to another discrete catchment system in which it does not occur; or, from within a part of a discrete catchment system where it does occur to another part where it does not occur as</li> </ul>
ထ	Micropterus floridanus (Lesueur, 1822)	Florida bass	and Forestry Reserves declared in terms of the Protected Areas Act. b. 2 for release into dams within discrete	a result of a natural or artificial barrier, is prohibited.  b. The release of the listed bass species in National Parks, Provincial Reserves, Mountain Catchment Areas and Forestry Reserves declared in terms of the Protected Areas Act is prohibited.
တ်	Micropterus floridanus (Lesueur, 1822) x Micropterus salmoides (Lacepède, 1802)	Hybrids of the Florida bass and the largemouth bass	catchment systems in which it occurs  c. 3 in all rivers, wetlands, natural lakes and estuaries in which it occurs. d. Subject to (b), each listed bass species is not listed for dams within	<ul> <li>c. The release of the listed bass species in any rivers, wetlands, natural lakes or estuaries is prohibited.</li> <li>d. Each listed bass species listed as Category 2 is exempted for a period of two years from the date upon which this notice takes effect, from requiring a Permit for any restricted activity in terms of the Act or Alien and Invasive Species Regulations, 2014, provided a person is in possession of a valid</li> </ul>
10.	Micropterus punctulatus (Rafinesque, 1819)	Spotted bass	discrete catchment systems in which it (the specific listed bass species) occurs.	Provincial Permit issued in terms of Provincial legislation where required for the specific listed bass species.  e. Catch and release of the listed bass species is exempted in discrete catchment systems in which they occur.

SPECIES	COMMON		CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
	Large-mouth bass	g 50 5	2 in National Parks, Provincial Reserves, Mountain Catchment Areas and Forestry Reserves declared in terms of the Protected Areas Act. 3 in all rivers, wetlands, natural lakes and estuaries in which it occurs. 2 for conveying, moving or otherwise translocating a live specimen. Large-mouth bass is not listed for dams within discrete catchment systems in which it occurs (excluding (a) above).	<ul> <li>a. The transfer or release of a specimen of large-mouth bass from one discrete catchment system in which it occurs, to another discrete catchment system in which it does not occur, or, from within a part of a discrete catchment system where it does occur to another part where it does not occur as a result of a natural or artificial barrier, is prohibited.</li> <li>b. The release of large-mouth bass in any rivers, wetlands, natural lakes or estuaries is prohibited.</li> <li>c. Large-mouth bass listed as category 2 are exempted for a period of two years from the date upon which this notice takes effect, from requiring a Permit for any restricted activity in terms of the Act or Alien and Invasive Species Regulations, 2014, provided a person is in possession of a valid Provincial Permit issued in terms of Provincial legislation where required for large-mouth bass.</li> <li>d. Catch and release of large-mouth bass is exempted in discrete catchment systems in which it occurs.</li> </ul>
Oreochromis niloticus (Linnaeus, 1758)	Nile tilapia	लं कं	1b in National Parks, Provincial Reserves, Mountain Catchment Areas and Forestry Reserves specified in terms of the Protected Areas Act. 2 for aquaculture facilities in the rest of the country.  3 in all other discrete catchment systems in which it occurs.	<ul> <li>a. The transfer or release of a specimen of Nile tilapia from one discrete catchment system in which it occurs, to a river, wetland, natural lake or estuary, or a dam that is not an aquaculture facility, in another discrete catchment system in which it does not occur; or, from within a part of a discrete catchment system where it does occur to a river, wetland, natural lake or estuary, or a dam that is not an aquaculture facility, in another part where it does not occur as a result of a natural or artificial barrier, is prohibited.</li> <li>b. Release of Nile tilapia in National Parks, Provincial Reserves, Mountain Catchment Areas and Forestry Reserves declared in terms of the Protected Areas Act is prohibited.</li> <li>c. Catch and release of Nile tilapia is exempted in discrete catchment systems in which it occurs.</li> </ul>
	Perch	e G	1b in National Parks, Provincial Reserves, Mountain Catchment Areas and Forestry Reserves declared in terms of the Protected Areas Act. 3 for all other discrete catchment systems in which it occurs.	<ul> <li>a. The transfer or release of a specimen of perch from one discrete catchment system in which it occurs, to another discrete catchment system in which it does not occur, or, from within a part of a discrete catchment system where it does occur to another part where it does not occur as a result of a natural or artificial barrier, is prohibited.</li> <li>b. Catch and release of perch is exempted in discrete catchment systems in which it occurs.</li> </ul>
Prerygoplichthys disjunctivus (Weber, 1991)	Vermiculated sailfin catfish	نک ته	1b in National Parks, Provincial Reserves, Mountain Catchment Areas and Forestry Reserves declared in terms of the Protected Areas Act. 3 for all other discrete catchment systems in which it occurs.	<ul> <li>a. The transfer or release of a specimen of vermiculated sailfin catfish from one discrete catchment system in which it occurs, to another discrete catchment system in which it does not occur; or, from within a part of a discrete catchment system where it does occur to another part where it does not occur as a result of a natural or artificial barrier, is prohibited.</li> <li>b. Catch and release of vermiculated sailfin catfish is exempted in discrete catchment systems in which it occurs.</li> </ul>

SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)	<ul> <li>a. The transfer or release of a specimen of tench from one discrete catchment system in which it occurs, to another discrete catchment system in which it does not occur; or, from within a part of a discrete catchment system where it does occur to another part where it does not occur as a result of a natural or artificial barrier, is prohibited.</li> <li>b. Catch and release of tench is exempted in discrete catchment systems in which it occurs.</li> </ul>
CATEGORY / AREA	a. 1b in National Parks, Provincial Reserves, Mountain Catchment Areas and Forestry Reserves declared in terms of the Protected Areas Act. b. 3 for all other discrete catchment systems in which it occurs.
COMMON	Tench
SPECIES	<i>Tinca tinca</i> (Linnaeus, 1758)
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List 8: National List of Terrestrial Invasive Invertebrate Species

				SCOPE OF EXEMPTION FROM
Š.	SPECIES	COMMON NAME	CATEGORY / AREA	SECTION 71(3) / PROHIBITION
				IN TERMS OF SECTION 71A(1)
<u>-</u>	Acarapis woodi (Rennie, 1921)	Tracheal mite	1b	
7	Anopiolepis gracilipes (Smith, 1857)	Crazy ant	1b	
က	Bactrocera invadens (Drew, Tsuruta and White, 2005)	Asian fruit-fly	1a	
4.	Bemisia fabaci (Gennadius, 1889)	Sweet potato whitefly	qt	
က်	Cinara cupressi (Buckton, 1881)	Cypress aphid	qp.	
6.	Coptofermes formosanus (Shiraki, 1909)	Formosan subterranean termite	1b	
7.	Cosmopolites sordidus (Germar, 1824)	Banana root borer	1b	
ωċ	Dirofilaria immitis Leidy, 1856	Heartworm nematode	1p	
ക്	Ditylenchus destructor Thorne, 1945	Potato rot nematode	1b	
10.	Ditylenchus dipsaci (Kühn, 1857) Filip'ev, 1936	Stem and builb nematode	1p	
11.	Globodera rostochiensis (Wollenweber, 1923), Behrens, 1975	Golden cyst nematode; potato cyst nematode	1b	
12.	Harmonia axyridis (Pallas, 1773)	Asian ladybeetle	16	
13.	Linepithema humile (Mayr, 1868)	Argentine ant	1b	
14.	Meloidogyne partityla Kleynhans, 1986	"Pecan nut" nematode	1b	
15.	Phasmatodea species (Jacobson and Blanchi, 1902)	Stick insect	3	
16.	Polistes dominula (Christ, 1791)	European Paper Wasp	1b	
17.	Prostephanus truncatus (Hom, 1878)	Larger grain borer	1a	
18.	Phenacoccus madeirensis (Green, 1925)	Madeira mealybug	1b	
19.	Pseudococcus calceolariae (Maskell, 1879)	Citrophilus mealybug	1b	
20.	Radopholus similis (Cobb, 1893) Thorne, 1949	Burrowing nematode	1b	
21.	Trogoderma granarium (Everts, 1899)	Khapra beetle	1b	
22.	Varroa destructor Anderson & Trueman, 2000	Varroa mite	1b	
23.	Vespula germanica (Fabricius, 1793)	European wasp, German wasp, German yellow-jacket	41	
	III.			

List 9: National List of Invasive Fresh-water Invertebrate Species

Ö.	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
<b></b> .	Aedes albopictus (Skuse, 1895)	Asian tiger mosquito	15	
5.	Aplexa marmorata (Guilding, 1828)	Marbled tadpole snail/ Siender bladder snail	1p	
છે	Astacus leptodactylus (Eschscholtz, 1823)	Danube/Galician/Turkish/Narrow-clawed crayfish	- 1a	Catch and release is prohibited
4	Cherax destructor Clark, 1936	Yabby	18	Catch and release is prohibited
5.	Cherax quadricarinatus (Von Martens, 1868)	Redclaw crayfish/Tropical blue crayfish	115	Catch and release is prohibited
9	Cherax tenuimanus (Smith, 1912)	Marron	2	Catch and release is prohibited
7.	Lymnaea columella (Say, 1817)	Amphibious pond snall	1b	
œί	Tarebia granifera (Lamarck, 1822)	Quilted melania snail	qp.	

List 10: National List of Invasive Marine Invertebrate Species

	I										
SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)				<ul> <li>a. Exempted from requiring a Permit for all restricted activities for existing aquaculture facilities that have a valid Permit from the Department of Agriculture, Forestry and Fisheries.</li> <li>b. Exempted from restricted activity (i) in Notice 1: "Discharging of or disposing into any waterway or the ocean, water from an aquarium, tank or other receptacle that has been used to keep a prohibited alien species or a listed invasive species."</li> <li>c. Exempted from restricted activity (e) in Notice 1: "Selling or otherwise trading in, buying, receiving, giving, donating or accepting as a gift, or in any way acquiring or disposing of any live specimen of a listed invasive species."</li> </ul>					<ul> <li>a. Exempted from requiring a Permit for all restricted activities for existing aquaculture facilities that have a valid Permit from the Department of Agriculture, Forestry and Fisheries.</li> <li>b. Exempted from restricted activity (i) in Notice 1: "Discharging of or disposing into any waterway or the ocean, water from an aquanium, tank or other receptacle that has been used to keep a prohibited alien species or a listed invasive species."</li> </ul>		<ul> <li>Exempted from requiring a Permit for all restricted activities for existing aquaculture facilities that have a valid Permit from the Department of Agriculture, Forestry and Fisheries.</li> </ul>
CATEGORY / AREA	3	1b	3	2	16	1b	a. 2 in all provinces except KwaZulu-Natal. b. Indigenous to KwaZulu- Natal, and therefore not listed there.	- 1p	2	3	2
COMMON NAME	Pacific barnacle	Shell worm	Sea vase, Ascidian	Japanese oyster, Pacific oyster	Disc lamp shelf	Black coral worm	Indian/White prawn	Estuarine tube-worm	White shrimp, Whiteleg shrimp	Feather-duster anemone, Plumose anemone	Mediterranean mussel, Blue mussel
SPECIES	Balanus glandula (Darwin 1854)	Boccardia proboscidea Hartman, 1940	Ciona infestinalis (Linnaeus, 1767)	<i>Crassostrea gigas</i> (Thunberg, 1793)	Discinisca tenuis (Sowerby)	Dodecacerea fewkesi Berkeley & Berkeley, 1954	Fenneropenaeus indicus (H. Milne Edwards, 1837)	Ficopomatus enigmaticus (Fauvel, 1923)	Litopenaeus vannamei (Boone, 1931)	Metridium senile (Linnaeus, 1761)	Mytitus galloprovincialis (Lamarck, 1819)
Š.	+-	2.	က်	4.	ů,	9	7.	<b>∞</b> i	<b>ග</b>	10.	<del>-</del>

Š	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3) / PROHIBITION IN TERMS OF SECTION 71A(1)
				<ul> <li>b. Exempted from restricted activity (i) in Notice 1: "Discharging of or disposing into any waterway or the ocean, water from an aquarium, tank or other receptacle that has been used to keep a prohibited alien species or a listed invasive species."</li> <li>c. Exempted from restricted activity (e) in Notice 1: "Selling or otherwise trading in, buying, receiving, giving, donating or accepting as a gift, or in any way acquiring or disposing of any live specimen of a listed invasive species."</li> </ul>
45	Ostrea edulis Linnaeus, 1758	European flat oyster	3	
6.	Penaeus monodon Fabricius, Giant tiger prawn/Tiger 1798	Giant tiger prawn/Tiger prawn	a. 2 in all provinces except     KwaZulu-Natal.     b. indigenous to KwaZulu-Natal, and therefore not listed there.	<ul> <li>a. Exempted from requiring a Permit for all restricted activities for existing aquacutture facilities outside of KwaZulu-Natal that have a valid Permit from the Department of Agriculture, Forestry and Fisheries.</li> <li>b. Exempted from restricted activity (i) in Notice 1: "Discharging of or disposing into any waterway or the ocean, water from an aquanium, tank or other receptacle that has been used to keep a prohibited alien species or a listed invasive species."</li> </ul>
4.	Sagartia omata (Holdsworth, 1855)	Brooding sea anemone	3	
15.	Semimytilus algosus (Gould, 1850)	Pacific mussel	tb	
16.	Tetrapygus niger (Molina, 1782)	Black sea-urchin	1a	

List 11: National List of Invasive Microbial Species

Š.	SPECIES	COMMON NAME	CATEGORY / AREA	SCOPE OF EXEMPTION FROM THE PROVISIONS OF SECTION 71(3)  1 PROHIBITION IN TERMS OF SECTION 71A(1)
	Kirramyces destructans		110	
2	Kirramyces eucalypti (Cooke & Massee) J. Walker, B.		16	
က်	Phytophthora kemoviae	Fungus-like pathogen	10	
4	Phytophthora pinifolia Alv. Durán, Gryzenh. & M.J. Wingf.	Fungus-like pathogen	110	
ည်	Phytophthora cinnamomi	Fungus-like pathogen	16	
ග්	Teratosphaeria cryptica	Eucalyptus teaf blotch	1b	
r		pariogen	4	
_	Fusanum chcmatum denocybes		2	

ECTION 67(1)	PLANTS	Common Name	Pale biddy-biddy	Puna grass	Spear grass	Jointed goat grass	Ovate goat grass	Goat grasses	Barb goat grass	Aeginetia species	Rough joint-vetch	Panicled onion	Wild garlic	Alligator weed	Giant ragweed	West Indian foxtail grass	Broom-sedge	Pond apple	Mugwort	Arundinaria reeds / bamboos	Azolia species	Groundsel bush	Barberry	Bifora	Cabomba species	Oxylobium	Heather	Bur-daisy	Plumeless thistle	Italian thistle	White-stem distaff thistle, Saffron thistle
LIST OF PROHIBITED ALIEN SPECIES IN TERMS OF SECTION 67(1)	LIST 1: PROHIBITED TERRESTRIAL AND FRESH-WATER PLANTS	No. Scientific Name	1. Acaena paliida (Kirk) Allan	Achnatherum brachychaetum (Godr.) Barkworth (= Nassella brachychaeta (Godr.) Barkworth, Stipa brachychaeta Godr.)	3. Achnatherum caudatum (Trin.) S.W.L.Jacobs & J.Everett	4. Aegilops cylindrica Host (= Cylindropyrum cylindricum (Host) A.Löve, Triticum cylindricum (Host) Ces.)		6. Aegilops species		8. Aeginetia species	9. Aeschynomene rudis Benth.	10. Allium paniculatum L.	11. Athum vineale L. (= A. kochií Lange)	12. Atternanthera philoxeroides (Mart.) Griseb.	13. Ambrosia trifida L.	14. Andropagen bicomis L.	15. Andropogon virginicus L.	16. Annona glabra L.		18. Arındinaria species	19. Azolla species except A, pinnafa R.Br. var. africana (Desv.) Baker which may be indigenous	<u> </u>			23. Cabomba species		25. Calluna vulgaris (L.) Hull	26. Calotis lappulacea Benth.	-	<b>-</b>	29. Carthamus feucocaulos Sm.

30	Carthamus ovvacaoffus M Bish (# C flavescens Mille)	Wild safflower
3 3	Contraction Oxfording Intelligence (** C. Indycascente Vitilat)	Object of the Control
3	Cassinia arcuata R.Br.	Chinese shrub, Drooping cassinia
35	Celastrus orbiculatus Thunb. ( $=$ C. articulatus Thunb.)	Climbing spindleberry, Oriental bittersweet
£.	Cenchrus echinatus L.	Southern sandbur grass, Mossman River grass
ਲਂ	Cenchrus longispinus (Hack.) Femald	Mat sandbur, Spiny bur grass
35.	Centaurea diffusa Lam.	Diffuse knapweed
36	Centaurea iberica Trevir. ex Spreng.	Iberian star thistle
37.	Centaures stoebe L. subsp. micranthos (S.G. Gmel. ex Gugler) Hayek (= Centaurea biebersteinii auct. non Lam., Centaurea maculosa auct. non Lam.	Spotted knapweed
88	Centauree sulphurea Willd.	Sicilian star thistle
8	Centaurea virgata Lam. subsp. squarrosa (Boiss.) Gugler (= C. squarrosa Willd., C. virgata auct. Amer.)	Squarrose knapweed
9	Chorispora tenella (Pall.) D.C.	Purple mustard
41.	Chrysopogon aciculatus (Retz.) Trin. (= Andropogon acicularis Retz. ex Roem. & Schult., A. aciculatus Retz., Rhaphis acicularis (Retz. ex Roem. & Schult.) Desv., R. aciculara (Retz.) Honda)	Pilipiliula
42.	Cirsium japonicum Fisch, ex DC.	Japanese thistle
43.	Cirsium ochrocentrum A.Gray	Yellow-spine thistle
4	Cirsium undulatum (Nutt.) Spreng.	Wavy-leaf thistle
45.	Clematis vitalba L.	Old man's beard
46.	Cildemia hirta (L.) D.Don (= Melastoma hirtum L.)	Koster's curse
47.	Coccinia grandis (L.) Voigt (≂ C. cordifolia auct., C. indica Wight & Am.)	lyy gourd
48	Cortaderia richardii (Endi.) Zotov	New Zealand pampas grass
46	Crassula helmsii (Kirk) Cockayne	Swamp stonecrop
20.	Crataegus sinaica Boiss.	Azzarola
51.	Crupina vulgaris Cass.	Common crupina, Bearded creeper
52.	Cupaniopsis anacardioides (A.Rich.) Radlk. (= Cupania anacardioides A.Rich.)	Carrotwood
53.	Cuscuta indecora Choisy (= C. jepsonii Yunck.)	Large-seeded dodder
<b>1</b> 2	Cuscuta reflexa Roxb.	Giant dodder, Indian dodder
55	Cylindropuntia species not in South Africa	Chollas
.96	Cymbopogon refractus (R.Br.) A.Camus (= Andropogon refractus R.Br.)	Barbwire grass
57.	Datura leichhardtii F.Muell. ex Benth. (≈ D. pruinosa Greenm.)	Leichhardt's thom apple
28.	Datura wrightii Regel (= $D$ . meteloides auct.)	Hairy thorn apple
59.	Dioscorea alata L. (≈ D. rubella Roxb.)	White yam
.09	Diplotaxis tenuifolia (L.) DC. (= Sisymbrium tenuifolium L.)	Sand rocket
. 61.	Dipsacus fullonum L. (= D. sylvestris Huds.)	Wild teasei
62	Drymania arenarioides Humb. & Bonpl. ex Schult.	Alfombrilla, Lightningweed
<b>3</b> 3.	Echium italicum L.	Italian bugloss
<b>1</b> 8	Eichhornia azurea (Sw.) Kunth	Anchored water hyacinth

<b>6</b> 5.	Eichhornia species not in South Africa	Water hyacinth species
.99	Elephantopus mollis Kunth (= E. tomentosus auct. nonn.)	Elephantopus, Elephant's foot
67.	Emex spinosa (L.) Campd. (= Rumex spinosus L.)	Spiny emex, Devil's thom, Lesser jack
99	Equisetum arvense L.	Field horsetail, Common horsetail
69	Erica lusitanica Rudolphi	Spanish heath, Portuguese heath
70.	Euphorbia oblongata Griseb.	Oblong spurge
71.	Euphorbia terracina L.	Geraldton carnation
72.	Fallopia japonica (Houtt.) Ronse Decr. (= Polygonum cuspidatum Siebold & Zucc., Polygonum reynoutria Makino, Reynoutria japonica Houtt.)	Japanese knotweed
73	Fallopia X bohemica (Chrtek, & Chrtková) J.P.Bailey	Japanese knotweed hybrid
74	Gaura drummondii (Spach) Torr. & A. Gray (= G. odorata auct.)	Drummond's gaura
75.	Gmelina asiatica L.	Badhara bush
. 76.	Gymnocoronis spilanthoides DC.	Senegal tea plant, Temple plant
77.	Halimodendron halodendron (Pall.) Voss (= Caragana argentea Lam., Halimodendron argenteum (Lam.) DC., Robinia halodendron Pall.)	Russian salt tree
æ:	Halogeton glomeratus (M.Bieb.) C.A.Mey. (= Anabasis glomerata M.Bieb.)	Halogeton
79	Hamisia species not in South Africa	Prickly apples
80.	Hanngana madagascariensis Lam. ex Poir. (= Haronga madagascariensis (Lam. ex Poir.) Choisy	Harungana, Haronga, Dragon's-blood-tree
<b>8</b> 1.	Helianthus ciliaris DC.	Blueweed, Texas blueweed
82.	Hieracium aurantiacum L. (= Pilosella aurantiaca (L.) F.W.Schultz & Sch. Bip.)	Orange hawkweed
83.	Hieracium pilosella L. (= Pilosella officinarum F.W. Schultz & Sch. Bip.)	Mouse-ear hawkweed
æ.	Hieracium praealtum Gochn.	King devil
82.	Hydrochans morsus-ranae L.	Frog's-bit
.98	Hydrodictyon reticulatum Lagerh.	Water net
87.	Hygrophila costata Nees et al. (= H. brasiliensis (Spreng.) Lindau, H. guianensis Nees, Ruellia brasiliensis Spreng.)	Hygrophila
88.	Hygrophila polyspemna (Roxb.) T.Anderson (= Justicia polyspemna Roxb.)	Miramar weed, Hygrophila
89.	Hymenachne amplexicaulis (Rudge) Nees	Olive hymenachne, West Indian marsh grass
93	Hypericum triquetrifolium Turra (= H. crispum L.)	Tangled hypericum
91.	Hypenicum X inodorum Mill. (= H. elatum Aiton)	Tall St John's wort, Tall tutsan
95.	Hyptis capitata Jacq.	Клориеед
93	Hyptis pectinata (L.) Poit. (= Nepeta pectinata L.)	Comb hyptis
<b>\$</b>	Hyptis suaveolens (L.) Poit (= Ballota suaveolens L.)	Wild spikenard, Hyptis
92	Imperata brasiliensis Trin.	Brazilian satin-tail
96	Imperata brevifolia Vasey (= Imperate hookeri (Rupr. ex Andersson) Hack.)	Satin-tail
97.	fpomoea triloba L.	Little-bell, Aiea moming-glory
. 38.	Ischaemum rugosum Salisb.	Murain-grass
<u>6</u>	Iva axillaris Pursh	Poverty weed

1 <u>0</u> 0	Iva axiilaris Pursh subsp. robustior (Hook.) Bassett	Poverty weed
₽	Juncus acutus L. subsp. Acutus	Spiny rush
102.	Lagascea mollis Cav.	Acuate
103.	Lepidium appelianum Al-Shehbaz (= Cardaria pubescens (C.A.Mey.) Jarm.)	Globe-pod hoary cress
104.	Lepidium draba L. subsp. chalepense (L.) Thell. (= Cardana chalepensis (L.) HandMazz)	Lens podded hoary cress
105.	Lepidium latifolium L.	Perennial pepperweed / Perennial peppercress
106.	Limnobium laevigatum (Humb. & Bonpl. ex Willd.) Heine	South American spongeplant
107.	Limnobium spongia (Bosc) Rich. ex Steud. (= Hydrocharis spongia Bosc)	American spongeplant
108	Limnocharis flava (L.) Buchenau (= Alisma flavum L., Limnocharis emarginata Bonpl.)	Sawah flowering rush, Yellow burrhead
109	Limnophila indica (L.) Druce (= Hottonia indica L.)	Ambulia
110	Limnophila sessiliflora (Vahl) Blume (= Hottonia sessiliflora Vahl)	Ambulia
111.	Ludwigia peploides (Kunth) P.H.Raven	Primrose willow, Creeping water-primrose
112.	Malachra alceifolia Jacq.	Malachra
113.	<ul> <li>Matvella leprosa (Ortega) Krapov. (= Sida hederacea (Douglas ex Hook.) Torr. ex A.Gray, Sida leprosa var.</li> <li>Inederacea (Douglas ex Hook.) K.Schum.)</li> </ul>	Alkali mallow, Alkali sida
114	Martynia annua L. (= M. diandra Gloxin)	Devil's claw
115.	Medinilla venosa (Blume) Blume (= Melastoma venosum Blume)	
116.	Melastoma malabathricum L. (= Melastoma normale D.Don)	Indian-rhododendron
117.	Melastoma species	Melastoma species
118.	Menyanthes trifoliata L.	Bog bean
119.	Micania species	Miconia
120.	Mikania cordata (Burm.f.) B.L.Rob.	Mile-a-minute
121.	Mikania micrantha Kunth	Mile-a-minute, Climbing hempweed
122.	Mikania scandens (L.) Willd. (= Eupatorium scandens L., Willoughbya scandens (L.) Kuntze)	Climbing hempweed
123.		Giant sensitive-plant
124.	Miscanthus floridulus (Labill.) Warb. ex K.Schum. & Lauterb. (* M. japonicus Andersson, Saccharum floridulum Labill.)	Giant Chinese silver grass, Japanese silver grass
125.	Monochoria hastata (L.) Solms	Arrow-leaf monochoria, Hastate-leaf-pondweed
126.	Monochona vaginalis (Burm.f.) C.Presl. ex Kunth (= M. vaginalis var. pauciflora Merr., Pontedena vaginalis Burm.f.)	Oval-leaf monochoria, Oval-leaf-pondweed, Pickerel-weed
127.	Muhlenbergia schreben J.F.Gmel. (= M. diffusa Willd.)	Nimblewill
128.	Myagrum perfoliatum L.	Muskweed
129.	Najas guadalupensis (Spreng.) Magnus	Southern naiad
130.	Nassella charuana (Arechav.) Barkworth (= Stipa charuana Arechav.)	Lobed needlegrass
131.	Nassella hyalina (Nees) Barkworth (= Stipa hyalina Nees)	Cane needlegrass
132.	Nassella leucotricha (Trin. & Rupr.) R.W.Pohl (= Stipa leucotricha Trin. & Rupr.)	Texas needlegrass
133.	Nechamandra affemifolia (Roxb.) Thwaites (= Valifsneria affemifolia Roxb.)	
134	Neyraudia reynaudiana (Kunth) Keng ex Hitchc. (= Arundo reynaudiana Kunth)	Burma reed

135	Numnhoides neminata (R Br.) Kuntre (= Villarsia neminata R Br.)	Entire marshwort
136		Water dropwort, Corky-fruit water-dropwort
137.	Ononis alopecuroides L.	Foxtail restharrow
138.	Onopordum acaulon L.	Stemless thistle
139.	Onopordum illynicum L.	Illyrian thistle
140.	Onopordum tauricum Willd.	Taurian thistle, Taurean thistle
141.	Opuntia species not in South Africa	Prickly pears
142.	Orobanche cooperi (A.Gray) A.Heller (= O. Iudoviciana Nutt. var. cooperi (A.Gray) Beck)	Cooper's broomrape
143.	Oryza rufipogon Griff. (≂ O. fatua J. König ex Trin., nom. nud., O. Sativa L. var. fatua Prain)	Red rice, Perennial wild red rice
144.	Ottelia alismoides (L.) Pers.	Duck-lettuce, Water-plantain ottelia
145.	Oxyspora paniculata (D.Don) DC. (= Arthrostemma paniculatum D.Don)	Bristletips
146.	Paederia cruddasiana Prain	Sewer vine
147.	Paederia foetida L. (= P. magnifica Noronha, nom. nud., P. scandens (Lour.) Merr., P. tomentosa Blume, Gentiana scandens Lour.)	Skunk vine
148.	Panicum antidotale Retz. (= P. miliare Lam., P. proliferum Lam.)	Blue panic grass
149.	Parietaria judaica L. (= P. diffusa Mert. & W.D.J. Koch)	Wall pellitory
150.	Passiflora bicomis Mill. (= P. pulchella Kunth)	Wingleaf passionfruit
151.	Pennisefum alopecuroides (L.) Spreng. (= Alopecurus hordeiformis L., Panicum alopecuroides L., Pennisteum compressum R.Br., P. hordeiforme (Thunb.) Spreng., P. japonicum Trin. ex Spreng.)	Chinese pennisetum, Swamp foxtail grass
152.	Pennisetum pedicellatum Trin.	Kyasuwa-grass
153.	Pennisetum polystachion (L.) Schult.	Mission grass, Thin Napier grass
154.	Pereskia species not in South Africa	
155.	Persicaria perfoliata (L.) H.Gross (= Polygonum perfoliatum L.)	Devil's tail tearthumb, Mile-a-minute-vine, Mile-a-minute-weed
156.	Persicaria wallichii Greuter & Burdet (= P. polystacfya (Wall. ex Meisn.) H.Gross, Polygonum polystachyum Wall. ex Meisn., Rubrivena polystachya (Wall. ex Meisn.) M.Král)	Himalayan knotweed
157.	Physalis longifolia Nutt. (= P. subglabrata Mack. & Bush, P. virginiana Mill. var. sonorae (Tort.) Waterf.)	Long-leaf ground-cherry
158.	Picnomon acama (L.) Cass.	Soldier thistle
159.	Piper aduncum L. (= P. angustifolium Ruiz & Pav., P. celtidifolium Kunth, P. elongatum Vahl)	Spiked pepper, Piper
160.	Pontederia rotundifolia L.f. (= Reussia rotundifolia (L.f.) A.Cast.)	Tropical pickerel-weed
161.	Potamogeton perfoliatus L.	Clasped pondweed
162.	Prosopis alpataco Phil.	Mesquite
163.	Prosopis argentina Burkart	Mesquite
164.	Prosopis burkartii Muñoz	Mesquite
165.	Prosopis caldenia Burkart	Mesquite
166.	Prosopis calingastana Burkart	Cusqui, Mesquite
167.	Prosopis campestris Griseb.	Mesquite

90	Prosopis castellanosii Burkart	Mesquite
169.	Prosopis denudans Benth. (= P. patagonica Speg.)	Mesquite
170.	Prosopis elata (Burkart) Burkart (= P. campestris Griseb. var. elata Burkart)	Mesquite
171.	Prosopis farcta (Banks & Sol.) J.F.Macbr. (= Mimosa farcta Banks & Sol.), M. stephaniana M.Bieb., P. stephaniana	Syrian mesquite
170	Omerais from Caint	Moonifo
į į	Trosupts returned.	meddate
173	Prosopis flebrigii Harms	Wesquite
174	Prosopis hassleri Harms	Mesquite
175.	Prosopis humilis Gillies ex Hook. & Am.	Mesquite
176.	Prosopis kuntzei Harms	Mesquite
177.	Prosopis palmeri S.Watson	Mesquite
178.	Prosopis reptans Benth. (= P. cinerascens (A. Gray) Benth., Strombocarpa cinerascens A. Gray)	Mesquite
179.	Prosopis rojasiana Burkart	Mesquite
180	Prosopis ruizlealii Burkart	Mesquite
181.	Prosopis ruscifolia Griseb.	Mesquite
182.	Prosopis sericantha Gillies ex Hook, & Am.	Mesquite
183.	Prosopis strombulifera (Lam.) Benth. (= Acacia strombulifera (Lam.) Willd., Mimosa strombulifera Lam.)	Argentine screwbean, Creeping mesquite
184	Prosopis forquata (Cav. ex Lag.) DC. (= Acacia forquata Cav. Ex Lag.)	Mesquite
185.	Pueraria phaseoloides (Roxb.) Benth. (= Dolichos phaseoloides Roxb., Neustanthus javanicus Benth., Pueraria javanica (Benth.) Benth.)	Tropical kudzu
186.	Ranunculus acris L. (= R. friesianus Jord.)	Giant buttercup
187.	Ranunculus sceleratus L.	Celery-leaf buttercup
188.	Reseda phyteuma L.	Rampion mignonette
189.	Rorippa austriaca (Crantz) Besser (= Nasturtium austriacum Crantz)	Austrian field cress
190.	Rorippa sylvestris (L.) Besser	Creeping yellow field cress
191.	Rubus anglocandicans A.Newton	Віаскрету
192.	Rubus arguitus Link	Prickly Florida blackberry
193.	Rubus moluccanus L. (= R. hilli F. Muell.)	Wild blackberry, Wild raspberry
1 <u>9</u> 2	Rubus sieboldii Blume	Molucca raspberry
195.	Saccharum spontaneum L. (= S. arenicola Ohwi, S. biflorum Forssk.)	Wild sugarcane
196.	Sagitfaria montevidensis Cham. & Schltdl. (= Lophotocarpus spongiosus (Engelm.) J.G.Sm., S. calycina Engelm.)	Giant arrowhead
197.	Salsola collina Pall,	Spineless Russian thiste, Tumbleweed
198	Salsola paulsenii Litv.	Barbwire Russian thistle
199.	Salsola vermiculata L.	Wormleaf salsola, Wormleaf saltwort
200	Salvia aethiopis L.	Mediterranean sage
201	Salvia virgata Jacq. (= S. campesfris M.Bieb.)	Meadow sage
202.	Salvinia auriculata Aubl. (= S. Rotundifolia Willd.)	Salvinia, Giant salvinia

203	Salvinia biloba Raddi	Giant salvinia
204	Salvinia herzogii de la Sota	Giant salvinia
205.	Sclerolaena birchii (F.Muell.) Domin (= Anisacantha birchii F.Muell.)	Galvanised burr
206.	Scolymus hispanicus L.	Golden thistle
207.	Scolymus maculatus L.	Spotted golden thistle
208.	Senecio jacobaea L.	Tansy ragwort, St James' ragwort
209.	Senecio squalidus L.	Oxford ragwort
210.	Senna tora (L.) Roxb. (= Cassia tora L.)	Java bean, Sicklepod senna
211.	Setaria faberi R.A.W. Herrm.	Chinese foxtail, Giant foxtail
212.	Setaria palmifolia (J.König) Stapf (= Panicum palmifolium Willd. ex Poir., Chaefochloa palmifolia Hitchc. & Chase)	Palm grass
213.	Solanum carolinense L.	Horse nettle, Carolina horse nettle
214.	Solanum dimidiatum Raf. (= S. torreyi A.Gray)	Torrey's nightshade
215.	Solanum lanceolatum Cay.	Lance-leaf nightshade
216.	Solanum marginatum L.f.	White-margined nightshade, White-edged nightshade
217.	Solanum robustum H.L.Wendl. (= S. alatum Seem., & J. C. Schmidt)	Silver-leaf nightshade
218.	Solanum tampicense Dunal	Wetfand nightshade
219.	Sonchus arvensis L.	Perennial sow thistle
220.	Sorghum hybrid 'Silk'	Silk forage sorghum
221.	Sorghum X almum Parodi (= S. bicolor (L.) Moench X S. halepense (L.) Pers.)	Columbus grass
222.	Sparganium erectum L. (= S. chlorocarpum Rydb., S. polyedrum (Asch. & Graebn.) Juz., S. ramosum Huds.)	Exotic bur-reed, Bur reed
223.	Spermacoce atata Aubl. (= Borreria atata (Aubl.) DC.)	Borreria, Buttonweed
224.	Sphaerophysa salsula (Pall.) DC. (= Colutea caspica M.Bieb., Phaca salsula Pall., Swainsona salsula (Pall.) Taub.)	Austrian peaweed
305	Sporobolus indicus (L.) R.Br. var. major (Büse) Baaijens (= Agrostis fertilis Steud., S. diandrus (Retz) P.Beauv. var.	Clark Descended overco
	mejor buse, s. erongarus r.co. var. purpureosuriusus Olimi, s. reruis (steut.) Crayton, s. indicus var. reruis   (Steut.) Jovet & Guédès, S. <i>indicus var. purpureo-suffusus</i> (Ohwi) T.Koyama)	Orall Fall alliant glass
226.	Stratiotes aloides L.	Water-aloe, Soldier plant, Water-soldier
227.	Symphytum asperum Lepach. (= S. asperimum Sims)	Prickly comfrey, Rough comfrey
Ş	Taeniatherum caput-medusae (L.) Nevski (= Cuviera caput-medusae (L.) Koeier var. aspera Simonk., Elymus	
228	caput-medusae L., E. crinius Schreb., Hordeum crinium (Schreb.) Desf., T. asperum (Simonk.) Nevski, T. crinium   (Schreb.) Manski	Medusa-head, Medusa's-head
229	Themeda quadrivalvis (L.) Kuntze (= Andropogon quadrivalvis L., Anthristia ciliata L.f., Themeda ciliata (L.f.) Hack.)	Grader grass, Habana grass
230.	Themeda villosa (Poir.) A.Camus (= Anthistiria villosa Poir., Themeda gigantea (Cav.) Hack. subsp. villosa (Poir.)	Lyon's grass
231.	Thunbergia annua Hochst.	Thunbergia
232.	Thunbergia fragrans Roxb. (= T. volubilis Pers., Flemingia grandiflora Roxb. ex Rottler)	Fragrant thunbergia, White thunbergia
233.	Tribulus cistoides L. (= 7. terrestris L. Var. cistoides (L.) Oliv.)	Caltrop
234	Triumfatta semitriloba Jacq.	Sacramento bur

232	Vallisneria gigantea Graebn.	Eelgrass
236.	Viscum album L.	European mistletoe
237.	Zizania latifolia (Griseb.) Turcz. ex Stapf (= Z. caduciflora Hand-Mazz., Hydropyrum latifolium Griseb.)	Manchurian wild rice
238.	Zygophyllum fabago L. (= Z. fabago L. var. brachycarpum Boiss.)	Syrian bean-caper

	LIST 2: PROHIBITED MARINE PLANTS	
<u>۶</u>	Scientific name	Common name
1.	Caulerpa taxifolia (Vahl) C. Agardh (excluding indigenous form in deep water off KwaZulu-Natal)	Notched caulerpa, Feather caulerpa, Killer alga
7	Sargassum muticum (Yendo) Fenshoit	Strangle weed

	LIST 3: PROHIBITED MAMMALS	
<u>.</u>	Scientific name	Common name
<b>-</b> :	Alcelaphus buselaphus (Pallas, 1766) (all subspecies with the exception of A. b. caama and A. b. lichtensteinil)	Hartebeest (except red hartebeest and Lichtenstein's hartebeest)
2	Bos frontalis Lambert, 1804	Gaur
က်	Castor species (all species)	Beaver
4	Erinaceus europaeus Linnaeus, 1758	European hedgehog
κj	Giraffa camelopandalis (Linnaeus, 1758) (all subspecies with the exception of giraffa)	Giraffe (except the South African giraffe)
6	Herpestes auropunctatus (Hodgson, 1836)	Kleiner Mungo, Small Indian mongoose
7.	Herpestes javanicus (É. Geoffroy Saint-Hilaire, 1818)	Small indian mongoose
œί	Hippotragus niger Harris, 1838 (all subspecies except of H. n. niger)	Sable
တ်	Kobus kob (Erxleben, 1777)	Kob
10.	Kobus leche subspecies (all subspecies except K. I. kafuensis and K. I. leche)	Lechwe subspecies (except red lechwe and Kafue lechwe)
1;	Kobus megaceros (Fitzinger, 1855)	Nile lechwe
12	Mustela eminea Linnaeus, 1758	Short-tailed weasel / Stoat
13.	Oryx beisa (Rüppell, 1835)	Beisa oryx
4	Rattus exulans (Peale, 1848) on off-shore islands	Pacific/Polynesian rat
15.	Redunca redunca (Pallas, 1767)	Bohor reedbuck
16.	Suncus murinus Linnaeus, 1766	Asian/Indian musk shrew
17.	Trichosurus vulpecula (Kerr, 1792)	Brushtail possum
<u>8</u>	Vulpes vulpes (Linnaeus, 1758)	Red fox

	LIST 4: PROHIBITED BIRDS	
Š.	Scientific name	Common name
<del>-</del>	Alectoris rufa (Linnaeus, 1758)	Red-legged partridge
5	Carpodacus mexicanus (Statius Muller, 1776)	House finch
6.	Colinus cristatus (Linnaeus, 1766)	Crested quail
4	Corvus brachyrhynchos C. L. Brehm, 1822	American crow
က်	Corvus frugilegus Linnaeus, 1758	Rook
ó	Corvus monedula Linnaeus, 1758	Eurasian/ Western jackdaw
7.	Emberiza citrinella Linnaeus, 1758	Yellowhammer
œί	Francolinus pondicerianus (Gmelin, 1789)	Grey francolin
တ	Icterus pectoralis (Wagler, 1829)	Spot-breasted oriole
19	Molothrus ater (Boddaert, 1783)	Brown-headed Cowbird
17	Oxyura jamaicensis (Gmelin, 1789)	Northern ruddy duck
15.	Oxyura leucocephala (Scopoli, 1769)	White-headed duck
13	Passer hispaniolensis (Temminck, 1820)	Spanish sparrow
4.	Passer montanus (Linnaeus, 1758)	Eurasian tree sparrow
12.	Perdix perdix (Linnaeus, 1758)	Grey partridge
16.	Streptopelia picturata (Temminck, 1813)	Madagascar (Malagasy) turtle-dove
17.	Struthio camelus molybdophanes Reichenow, 1883	North African (Somali) ostrich
18.	Turdus philomelos C. L. Brehm, 1831	Song thrush
6	Turdus merula Linnaeus, 1758	Common/Eurasian Blackbird
ä	Zenaída asiatica (Linnaeus, 1758)	White-winged dove

	Common name	Common agama	Bark anole	Brown anole	Brown tree snake	House gecko	Indo-Pacific gecko	Mediterranean gecko	Northern curlytail lizard	True and Italian wall lizards	Moorish wall gecko
LIST 5: PROHIBITED REPTILES	Scientific name	Agama agama (Linnaeus, 1758) (including Agama agama africana, Agama agama boensis, Agama agama savattieri africana, Agama lebretoni, Agama mucosoensis, Agama paragama, Agama parafricana, Agama wagneri and Agama tassiliensis)	Anolis distichus Cope, 1861	Anolis sagrei Cocteau in Duméril and Bibron, 1837	Boiga irregularis (Merrem, 1802)	Hemidactylus frenatus Schlegel, 1836	Hemidactylus garnotii Duméril and Bibron, 1836	Hemidactylus turcicus (Linnaeus, 1758)	Leiocephalus carinatus Gray, 1827	Podarcis species (Boulenger, 1905)	Tarentola mauritanica (Linnaeus, 1758)
	No.	<del>-</del> -	2.	က	4.	5.	نون	7.	∞;	တ်	10.

	LIST 6: PROHIBITED AMPHIBIANS	
No.	Scientific name	Common name
1	Ambystoma tigrinum (Grean, 1825)	Tiger salamander
2	Bufo bufo (Linnaeus, 1758)	European toad
69	Eleutherodactylus coqui Thomas, 1966	Puerto Rican coqui
4.	Eleutherodactylus planirostris (Cope, 1862)	Greenhouse frog
က်	Lithobates catesbeianus (Shaw, 1802)	American bull frog
6.	Litoria caerulea (White, 1790)	Great green tree-frog
7.	Notophthalmus viridescens (Rafinesque, 1820)	Red-spotted newt
∞	Osfeopilus septentrionalis (Dumèril and Bibron, 1841)	Cuban tree-frog
ග්	Rhinella marina (Linnaeus, 1758)	Cane / Marine toad

	LIST 7: PROHIBITED FRESH-WATER FISH	
No.	Scientific Name	Common name
1,	Abramis species	Bream
2.	Acantharchus species	Mud sunfish
3,	Acheilognathus species	Bitterling
4	Acipenser species	Sturgeon/Greater sturgeon
Š	Ameiurus species	Builheads
ر ق	Amia calva (Linnaeus, 1766)	Bowfin/Mudfish/Dogfish
7.	Amphilius species	Golden African kuhli
ωi	Anabas species	Climbing perch/Climbing fish
6	Anguilla species (except those that are indigenous to South Africa)	Eels
10.	Aphanius species	Minnow/Kilifish
Ę	Aplocheilichthys species (except those that are indigenous to South Africa)	Killifish
12.	Arapaima gigas (Schinz, 1822)	Arapaima
13.	Bagrus species	Catfish
4.	Barilius species (except those that are indigenous to South Africa)	Barbs
15.	Bathyclarias species	Catfish
16.	Centrarchus species	Sunfish
17.	Chaca chaca (Hamilton, 1822)	Frogmouth catfish/ Square-head catfish
₩.	Channa species	Snakeheads
19.	Chela species	Minnows
20.	Chetia species (except those that are indigenous to South Africa)	Kurpers
21.	Chilogianis species (except those that are indigenous to South Africa)	Suckermouth catfishes
75.	Chologaster comutus (Agassiz, 1853)	Cavefish/Swampfish
23.	Chondrostoma species	Nasling/Nases
77	Chrysichthys species	Catfishes
35	Cichla species	Peacock cichlid/Bass
26.	Clarias batrachus (Linnaeus 1758)	Clarias catfish, Climbing perch, Walking catfish
27.	Colossoma species	Pacu
28.	Coregonus species	Ciscos
23	Cottus species	Sculpins
30.	<i>Croilla</i> species	Burrowing goby

3	Cyprinodon species	Pupfish
35.	Docimodus species	Catfish
33.	Elassoma species	Pygmy sunfishes
श्रं	Electrophorus electricus (Linnaeus, 1766)	Electric eel
35.	Engrauticyprus species	Lake sardines
36.	Enneacanthus species	Banded or little sunfishes
37.	Esox species	Pike
38.	Eutropius species	Cichlid
89	Fundulus species	Top minnows
6	Galaxias species (except those that are indigenous to South Africa)	Galaxias
4	Gambusia species (except Gambusia affinis (Baird & Girard, 1853) already listed under 1b)	Mosquito-fish
45.	Gasterosteus species	Sticklebacks
43.	Gephyroglanis species	Catfish
4	Glossogobius species (except those that are indigenous to South Africa)	Gobies
42	Gobio species	Gudgeons
46.	Gymnallabes species	Air-breathing catfishes
47.	Heterobranchus species	Air-breathing catfishes
48	Hucho hucho (Linnaeus, 1758)	Huchen/Danube salmon
49.	Huso huso (Linnaeus, 1758)	Beluga sturgeon/ European sturgeon
20.	Hydrocynus species (except Hydrocynus vittatus Castelnau, 1861 which is indigenous to South Africa)	African tiger fish
51.	Idalutus species	Catfish
52.	Idus idus (Linnaeus, 1758)	Silver/Golden orfe
53	Jordanella floridae (Goode Bean, 1879)	American flagfish
2	Lampetra species	Lampreys
22	Lates species (except Lates calcarifer (Bloch, 1790))	Perch and barramundi
56.	Lepomis species (except Lepomis macrochirus Rafinesque, 1819 aiready listed as 1b)	Sunfishes
57.	Leptoglanis species (except those that are indigenous to South Africa)	Catfishes
89 28	Leuciscus species	Eurasian daces
28	Liposarcus species	Plecostomus
.09	Lota lota (Linnaeus, 1758)	Burbot
61.	Luciosoma setigerum (Valenciennes, 1842)	Apollo shark
62	Malapterurus species (except those that are indigenous to South Africa)	Electric catfish
63.	Marcusenius species (except those that are indigenous to South Africa)	Elephantfish
2	Mesobola species (except those that are indigenous to South Africa)	Sardines

85	Micropterus species (except the species listed as restricted invasive species)	Bass
99	Misgumus species	Weather fish
. 29	Myleus species	Brown metynnis
88	Neochanna species	Mudfish
69	Neomacheilus species	Loaches
2,	Notemiganus crysoleucas (Mitchill, 1814)	Golden shiner
71.	Notropis species	Shiner
72.	Oncorhynchus species, excluding rainbow trout (O. mykiss (Walbaum, 1792)), coho salmon (O. kisutch (Walbaum, 1792)) and king salmon (O. tshawytscha (Walbaum, 1792))	Trout / Salmon
73.	Ophicephalus species	Snakehead
74	Opsandium species (except those that are indigenous to South Africa)	Barilius
75.	Oreochromis species (excluding species already in South Africa and species indigenous to South Africa)	Tilapias
76.	Oryzias species	Rice fish/Geisha girl/Golden mede
77.	Osmerus eperlanus (Linnæeus, 1758)	European smelt
æ Z	Paragalaxias species	Paragalaxias
79	Perca species	Perch
90	Percina species	Percina darters
æ	Petrocephalus species	Mormyrid
82.	Petromyzon marinus (Linnaeus, 1758)	Lamprey
83.	Phoxinus species	Minnow
84	Piecostomus species	Plecostomus
82	Pogonopoma species	Catfish
.98	Pomoxis species	Crappies
87.	Profopterus species	Lung fish
.88	Pseudocrenilatrus species	Mouthbrooder
89.	Pseudorasbora species	Whiptail sturgeon
96	Pseudorinelepis species	Catfish
91.	Pterygoplichthys species (except P. disjunctivus Weber, 1991 already listed under 1b)	Plecos
92.	Pungifius species	Stickleback
93.	Pygocentrus species	Piranha
94	Pygosfeus species	Stickleback
95.	Rhinelepis species	Catfish
96	Rhamdia species	Three-barbeled catfish
97.	Rhinichthys atratulus atratulus (Hermann, 1804)	Black-nose dace

89	Rhinichthys atratulus obtusus (Agassiz, 1854)	Western black-nose dace
66	Rhodeus species	Bitterlings
100.	Rooseveltiella species	Piranha
101	Rutilus species	Roach
102.	Salmo species, excluding brown frout (S. trutta Linnaeus, 1758) and Atlantic salmon (S. salar Linnaeus, 1758)	Trout and salmon
103.	Salvelinus species	Char
104.	Sargochromis species (except those that are indigenous to South Africa)	Cichlid
105.	Sarotherodon species	Tilapia
106.	Schilbe species (except those that are indigenous to South Africa)	Schilbid catefish
107.	Serrasalmus species	Piranha
108	Silurus glanis (Linnaeus, 1758)	European/Wels/Waller catfish
109.	Thymallus thymallus (Linnaeus, 1758)	Grayling
110.	Tilapia species excluding Tilapia rendalli (Boulenger, 1897) & Tilapia sparmanii Smitt, 1840 (regulated by area) and Tilapia bakossiorum & Tilapia snyderae Stiassny, Schliewen and Dominey, 1992 (exempted)	Tilapias

	LIST 8: PROHIBITED MARINE FISH SPECIES	
Š	Scientific Name	Common name
<del></del>	Pierois volifans (Linnaeus, 1758)	

	LIST 9: PROHIBITED TERRESTRIAL INVERTEBRATES	9
9	Scientific Name	Common Name
	a. Prohibited Mollusca (Snails and Molluscs)	
<b>←</b>	Achatina fulica Bowdich, 1822	Giant African snail
2	Euglandina rosea (Férussac, 1821)	Rosy wolf snail
	b. Prohibited Nematoda (Nematodes)	
က	Aphelenchoides fragariae (Ritzema Bos, 1890) Christie, 1932	Strawberry crimp disease nematode
4	Belonolaimus longicaudatus Rau, 1958	Sting nematode
ည်	Bursaphelenchus xylophilus (Steiner & Bührer, 1934) Nickel, 1970	Pine wilt or Pine wood nematode
တ်	Globodera paliida (Stone, 1973) Behrens, 1975	Pale cyst nematode, Potato cyst nematode
7.	Heterodera glycines Ichinoha, 1952	Soybean cyst nematode
ထ	Heterodera goettingiana Liebscher, 1892	Pea cyst nematode
6	Longidorus attenuatus Hooper, 1961	Tomato docking disorder nematode
5	Longidorus elongatus (De Man, 1876) Micoletzky, 1922	Sugar beet docking disorder nematode
7	Paratrichodorus nanus (Allen, 1957) Siddiqi, 1974	Stubby root nematode
15	Paratrichodorus pachydermus (Seinhorst, 1954) Siddiqi, 1974	Stubby root nematode
<del>1</del> 3	Parafrichodorus tunisiensis (Siddiqi, 1963)	
4	Paratylenchus bukowinensis Micoletzky, 1922	
र्	Rhadinaphelenchus cocophilus (Cobb, 1919) J.B. Goodey, 1960	Red ring disease nematode
16.	Scutellonema bradys (Steiner & Lehew, 1933) Andrassy, 1958	Yam nematode
17.	Trichodorus primitivus (de Man, 1880)	
<b>8</b> 2	Trichodorus similis Seinhorst, 1963	
<del>1</del> 9	Trichodorus viruliferus Hooper, 1963	
	c. Prohibited Insecta (Insects)	
70.	Aleurodicus destructor Mackie, 1912	Aleyrodidae, Coconut whitefly
77	Aleurodicus dispersus Russell, 1965	Aleyrodidae, Spiralling whitefly
22	Amblypelta Iulescens (Distant)	Coccidae, Banana spotifing bug
23.	Anastrepha ludens (Loew)	Tephritidae, Mexican fruit fly
24.	Anasirepha obliqua (Macquart)	Tephritidae, West Indian fruit fly
52	Anastrepha pseudoparallela (Loew, 1873)	Tephritidae,

<u>5</u> 6.	Anastrepha serpentina (Wiedemann)	Tephrifidae, Sapodilla fruit fly
27.	Anastrepha striata Schiner	Tephritidae, Guava fruit fly
83	Anastrepha suspensa (Loew)	Tephritidae, Caribbean fruit fly
59.	Anoplophora glabripennis (Motschulsky)	Asian long-horned beetle
30.	Archips argyrospilus (Walker, 1863)	Tortricidae, Fruit tree leaf-roller
31.	Argyrotaenia citrana (Fernald)	Tortricidae, Orange tortrix moth
35	Autacaspis yasumatsui Tagaki	Asian cycad scale
33.	Bactrocera aquilonis (May, 1965)	Tephritidae
34.	Bactrocera carambolae Drew & Hancock, 1994	Tephritidae, Carambola fruit fly
32	Bactrocera caryeae (Kapoor, 1971)	Tephritidae
999	Bactrocera correcta (Bezzi, 1916)	Tephritidae, Guava fruit fly
37.	Bactrocera cucurbitae (Coquillett, 1899)	Tephritidae, Melon fly
38.	Bactrocera dorsalis (Hendel, 1912)	Tephritidae, Oriental fruit fly
39.	Bactrocera facialis (Coquillett, 1909)	Tephritidae
40.	Bactrocera frauenfeldi (Schiner, 1868)	Tephritidae, Mango fruit fly
41.	Bactrocera jarvisi (Tryon, 1927)	Tephritidae, Jarvis' fruit fly
45.	Bactrocera kandiensis Drew & Hancock, 1994	Tephritidae
43.	Bactrocera kirki (Froggatt, 1911)	Tephritidae
44	Bactrocera latitrons (Hendel, 1915)	Tephritidae, Malaysian fruit fly
45.	Bactrocera melanotus (Coquillett, 1909)	Tephritidae, Black fruit fly
46.	Bactrocera musae (Tryon, 1927)	Tephritidae, Banana fruit fly
47.	Bactrocera neohumeralis (Hardy, 1951)	Tephritidae
48.	Bactrocera occipitalis (Bezzi, 1919)	Tephritidae, Breadfruit fruit fly
49.	Bactrocera papayae Drew & Hancock, 1994	Tephritidae, Asian papaya fruit fly
20.	Bactrocera passiflorae (Froggatt, 1911)	Tephritidae, Fijian fruit fly
51.	Bactrocera philippinensis Drew & Hancock, 1994	Tephritidae
52.	Bactrocera psidii (Froggatt, 1899)	Tephritidae, South sea guava fruit fly
53	Bactrocera pyritoliae Drew & Hancock, 1994	Tephritidae
ফ্র	Bactrocera tryoni (Froggatt, 1897)	Tephritidae, Queensland fruit fly
22	Bactrocera xanthodes (Broun, 1904)	Tephritidae, Pacific fruit fly
<del>.</del> 26.	Bactrocera zonata (Saunders, 1842)	Peach fruit fly
. 57.	Castnia licoides (Boisduval, 1875)	Castniidae, Banana stem borer
85 85	Castnia penelope Schaufuss, 1870	Castniidae

26	Ceropíastes floridensis Comstock, 1881	Coccidae, Florida wax scale
.00	Chloropulvinaria polygonata (Cockereil)	Cocoidae
61.	Choristoneura rosaceana (Harris, 1841)	Tortricidae, Rosaceous/Oblique-banded leaf roller
62.	Chrysodeixis eriosoma (Doubleday, 1843)	Noctuidae, Green garden looper
63.	Cnephasia jactatana Walker	Tortricidae, Black-lyre leaf roller moth
64.	Colaspis hypochlora Leferve	Chrysomelidae, Leaf scarring beetle
65.	Conogethes punctiferalis (Guenée)	Pyralidae, Yellow peach moth, Castor capsule borer
.99	Conopomorpha litchiella Bradley, 1986	Gracillariidae
.79	Cryptophlebia illepida (Butler) 1882	Tortrioidae
89	Cryptophlebia ombrodeffa (Lower)	Tortrioidae, Litchi fruit moth
.69	Clenopseustis obliquana (Walker)	Tortricidae, Brownheaded leafroller
.07	Dudua aprobola (Meyrick, 1886)	Tortrioidæ
.17	Dysmicoccus neobrevipes Beardsley, 1959	Pseudococcidae, Grey pineapple mealybug
.72	Epiphyas postvittana Walker	Tortricidae, Light brown apple moth
73.	Erionota thrax (Linnaeus, 1767)	Hesperiidae, Banana skipper
74.	Holopothrips ananasi Costa Lima, 1935	Thripidae
75.	Hyphantria cunea (Drury)	Fall webworm
76.	Lachnopus sp. near campechianus	Curculionidae
77.	Lobesia aeolopa Meyrick, 1907	Tortricidae
78.	Lymantria dispar Linnaeus, 1758	Asian gypsy moth
.62	Maconellicoccus hirsutus (Green, 1908)	Pseudococcidae, Pink hibiscus mealybug
80.	Metamasius callizona (Chevrolat)	Curculionidae, Mexican bromeliad weevil
81.	Nacoleia octasema (Meyrick, 1886)	Pyralidae, Banana scab moth
82.	Erechthias flavistriata Zimmerman, 1978	Tineidae, Sugarcane bud moth
83.	Odoiporus longicallis (Olivier, 1807)	Curculionidae, Banana pseudostem weevil
₩.	Oryctes minoceros (Linnaeus)	Asiatic rhinoceros beetle
85.	Paratachardina pseudolobata Kondo & Gullan	Lobate lac scale
86.	Planococcoides njalensis Laing	Pseudococcidae, West African cocoa mealybug
87.	Planococcus lifchi Cox, 1989	Pseudococcidae, Mealybug
88.	Planococcus minor (Maskell)	Pseudococcidae, Passionvine mealybug
89.	Planotortix excessana (Walker)	Tortricidae, Leafroller moth
90.	Platynota stultana Walsingham	Tortricidae, Omnivorous leafroller
91.	Proeulia auraria (Clarke, 1949)	Tortricidae, Chilean fruit leafroller

92.	Proeulia chrysopteris (Butler, 1883)	Tortricidae
93.	Pseudococcus comstocki (Kuwana)	Pseudococcidae, Comstock mealybug
.46	Pseudococcus cryptus Hempel	Pseudococcidae, Citriculu mealybug
<b>3</b> 5	Pseudococcus elisae Borchsenius, 1947	Pseudococcidae, Banana mealybug
96	Pseudococcus jackbeardsleyi Gimpel and Miller, 1996	Pseudococcidae, Jack Beardsley mealybug
97.	Rastrococcus iceryoides (Green, 1908)	Pseudococcidae, Mango mealybug
-86	Rastrococcus invadens Williams	Pseudococcidae, Fruit tree mealybug
66	Rastrococcus mangiferae (Green)	Pseudococcidae, mango shield scale
100.	Rastrococcus spinosus (Robinson)	Pseudococcidae, Philippine mango mealybug
101.	Rhipiphorothrips cruentatus Hood, 1919	Thripidae, Grapevine thrip
102	Solenopsis invicta Buren, 1972	Red imported fire ant (RIFA)
103.	Spodoptera litura (Fabricius)	Noctuidae, Oriental leafworm moth
104.	Stemochefus frigidus (Fabricius, 1787)	Curculionidae, Mango pulp weevil
105.	Theola basilides Geyer	Lycaenidae, Pineapple borer
106.	Theola legota Hewitson, 1877	Lycaenidae
107.	Thrips hawaiiensis (Morgan, 1913)	Thripidae, Banana flower thrip
108.	Thrips palmi Kamy, 1925	Thripidae, Melon thrip
109.	Tmolus echion (Linnaeus, 1767).	Lycaenidae, Red-spotted hairstreak
110.	Toxotrypana curvicauda Gerstaecker	Aleyrodidae, Papaya fruit fly
111.	Unaspis citri (Comstock, 1883)	Diaspididae, Citrus snow scale
112.	Vespa velutina Lepaletier, 1836	Asian predatory wasp
113.	Vespula vulgaris (Linnaeus, 1758)	Common wasp, Common yellowjacket
114.	Vinsonia stellifera (Westwood)	Coccidae, Stellate scale
115.	Wasmannia auropunctata (Roger, 1863)	Cocoa tree-ant, Little red fire ant
116.	Xylosandrus compactus (Eichhoff, 1875)	Ambrosia beetle
117.	Xylosandrus mutilates (Blandford)	Camphor shoot beetle
118.	Ail Formicidae, Tephritidae, Apis and Vespula species not in the country, unless for biological control purposes	All ant, fruit-fly, bee, and wasp species not listed, and not in the country, unless for biological control purposes
119.	All non-indigenous sub-species of Apis mellifera other than A m scutellata and A m capensis	All non-indigenous sub-species of the African bee and Cape bee
	d. Prohibited Acari (Mites)	Prohibited Acari (Mites)
120.	Calacarus brionesae Keifer 1963	Eriophyidae
121.	Cisaberoptus kenyae Keifer	Eriophyidae, Mango leafcoating mite
122.	Oligonychus biharensi (Hirst)s	Tetranychidae, Spider mite/Cassava red mite

	123. Oligonychus punicae (Hirst)	Tetranychidae, Avocado brown mite
124.	124. Oligonychus yothersi (McGregor)	Tetranychidae, Avocado red mite
125.	Tetranychus desertorum Banks, 1900	Tetranychidae, Desert spider mite
126.	Tetranychus mexicanus (McGregor)	Tetranychidae, Spider mite
127.	Tetranychus piercei McGregor	Teiranychidae, Banana spider mite
128.	128. Tuckerelle pavoniformis (Ewing, 1922)	Tuckerellidae
129.	129. Any species of the genera Varroa, Euvarroa or Tropilaelaps	
	e. Prohibited Other Invertebrate Species	Prohibited Other Invertebrate Species
130	130. Platydemus manokwan de Beauchamp, 1963	Flatworm (Turbellaria)

LIST	LIST 10: PROHIBITED FRESH-WATER INVERTEBRATES	
Ŋo.	Scientific Name	Common Name
1.	(O. F. Müller, 1774)	Asian clam/ Golden clam
2.	Dreissena polymorpha (Pallas, 1771)	Zebra mussel, Eurasian zebra mussei
3.	Dreissena rostriformis	Quagga mussel
4.	Orconectes limosus (Rafinesque, 1817)	North American spiny cheek crayfish
5.	Orconectes rusticus (Girard, 1852)	Rusty crayfish
Ġ,	Pacifastacus leniusculus (Dana, 1852)	North American signal crayfish
7.	Potamocorbula amurensis (Schrenck, 1861)	Amur river clam, Asian bivalve, Asian clam, brackish-water corbula
ဆ	Procambarus clarkii (Girard, 1852)	Red swamp crayfish

LIST	LIST 11: PROHIBITED MARINE INVERTEBRATES	
<u>۷</u>	Scientific Name	Common name
1	Argopecten purpuratus (Lamarck, 1819)	Chilean scallop
2.		Pacific seastar
က်	Eriocheir sinensis (H. Milne Edwards, 1853)	Asian mitten crab
4	Mnemiopsis leidyi (A. Agassiz, 1865)	Comb jelly/ sea wahut
5	Perna viridis (Linnaeus 1758)	Asian green mussel
Ó	Potamocorbula amurensis (Schrenck, 1861)	Asian clam
7.	Venerupis philippinarum A. Adams & Reeve, 1850	Manila clam

	LIST 12: PROHIBITED MICROBES	
Ñ.	No. Scientific Name	Common name
<del>,</del>	Banana bunchy top virus (BBTV)	Banana bunchy top pathogen, Bunchy top virus
2.	Fusarium oxysporum f. sp. cubense W.C. Snyder & H.N. Hansen (GNI.)	Panama wilt disease
3.	Phytophthora ramorum	Sudden oak death pathogen
4.	Plasmodium relictum	Avian malariapathogen
5.	Puccinia psidii genotypes introduced by plants in the family Myrtaceae	Myrtaceae rust
6.	Nosema ceranae	Kiss-of-death bacteria
7.	Paenibacillus farvae	American foulbrood bacteria

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## GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS

### DEPARTMENT OF ENVIRONMENT, FORESTRY AND FISHERIES

NO. R. 1020

**25 SEPTEMBER 2020** 

# NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT, 2004 (ACT NO. 10 OF 2004)

### ALIEN AND INVASIVE SPECIES REGULATIONS

I, Babara Dallas Creecy, Minister of Forestry, Fisheries and the Environment, hereby publish the Alien and Invasive Species regulations in terms of section 97(1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) as set out in the Schedule hereto.

**BARBARA DALLAS CREECY** 

MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT

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## CHAPTER 1 INTERPRETATION

### 1. Definitions

In these regulations, any word or expression to which a meaning has been assigned in the Act, has the meaning so assigned and, unless the contents otherwise indicates—

"authorised official" means an environmental management inspector;

"biological control" means the use of specimens of one species for the purpose of preying on, parasitising, damaging, killing, suppressing or controlling a specimen of another species;

"biomass" means organic plant matter that will be utilised—

- (a) as fuel or converted to fuel;
- (b) as an energy source;
- (c) as building materials including structures, furniture and other products; or
- (d) for conservation purposes;

"botanical institution" means an establishment where plants are grown for scientific study and for display to the public;

"catch and release" means the catching and release of a live fresh-water animal in the same area in which it was caught;

"Category 1a Listed Invasive Species" means invasive species contemplated in Regulation 2;

"Category 1b Listed Invasive Species" means invasive species contemplated in Regulation 3;

"Category 2 Listed Invasive Species" means invasive species contemplated in Regulation 4;

"Category 3 Listed Invasive Species" means invasive species contemplated in Regulation 5;

"eradicate" means the complete removal of invasive species from within the Republic, including all living parts of that species;

"inter-basin transfer scheme" means a man-made conveyance scheme which moves water from one river catchment where it is available, to another catchment where water is less available;

"Invasive Species Monitoring, Control and Eradication Plan" means a plan contemplated in section 76 of the Act and in Regulation 10;

"off-shore island" means the Prince Edward Islands referred to in the Prince Edward Islands Act, 1948 (Act No. 43 of 1948), or any other off-shore island in South Africa's exclusive economic zone:

"pathway" means the route by which a specimen of an alien or listed invasive species is transported, introduced into, dispersed or spread within the Republic, whether by natural, unnatural, deliberate or inadvertent means or by an act of omission;

"riparian area" means within 32 metres of the edge of a river, lake, dam, wetland or estuary, or within the 1:100 year floodline, whichever is the greater;

"risk assessment" means a scientific evaluation of the threat or potential threat to ecosystems, habitats, other species, the economy, the environment or human health or well-being posed by a restricted activity involving a specimen of an alien or listed invasive species in terms of Chapter 6 of these regulations;

### "scientific institution" means-

- (a) an organ of state that is involved in research;
- (b) a registered research unit of a tertiary institution; or
- (c) a museum or herbarium;

"these regulations" includes any Notices published in terms of sections 66(1), 67(1), 70(1)(a), 71(3) and 71A of the Act;

"vector" means any object by, with or on which a specimen of an alien or listed invasive species is inadvertently or deliberately transported, dispersed or spread; and

"zoological institution" means a facility in which animals are confined within enclosures, displayed to the public, and in which they may also be bred.

# CHAPTER 2 CATEGORIES OF LISTED INVASIVE SPECIES

### 2. Category 1a Listed Invasive Species

- (1) Category 1a Listed Invasive Species are those species listed as such by notice in terms of section 70(1)(a) of the Act as species which must be combatted or eradicated.
- (2) A person in control of a Category 1a Listed Invasive Species must—
  - (a) immediately take steps to combat or eradicate listed invasive species in compliance with sections 75(1), (2) and (3) of the Act; and
  - (b) allow an authorised official to inspect a property as provided for in terms of section 31K of the National Environmental Management Act and to monitor, assist with or implement the combatting or eradication of the listed invasive species.

(3) If an Invasive Species Management Programme has been developed in terms of section 75(4) of the Act, a person must combat or eradicate the listed invasive species in accordance with such programme.

## 3. Category 1b Listed Invasive Species

- (1) Category 1b Listed Invasive Species are those species listed as such by notice in terms of section 70(1)(a) of the Act as species which must be controlled.
- (2) A person in control of a Category 1b Listed Invasive Species must control the listed invasive species in compliance with sections 75(1), (2) and (3) of the Act.
- (3) If an Invasive Species Management Programme has been developed in terms of section 75(4) of the Act, a person must control the listed invasive species in accordance with such programme.
- (4) A person contemplated in sub-regulation (2) must allow an authorised official to inspect a property as provided for in terms of section 31K of the National Environmental Management Act and to monitor, assist with or implement the control of the listed invasive species, or compliance with the Invasive Species Management Programme contemplated in section 75(4) of the Act.
- (5) The Minister may require any person to develop a Category 1b Control Plan for one or more Category 1b species, which plan must be submitted to the Minister for approval, and such Control Plan must include the following:
  - (a) species identification;
  - (b) extent of invasion;
  - (c) control measures to be used;
  - (d) an action plan or schedule including time-frames for the clearing of each species;
  - (e) whether or not any species can be utilised as biomass; and
  - (g) any other information which the Minister may require.

### 4. Category 2 Listed Invasive Species

- (1) Category 2 Listed Invasive Species are those species listed by notice in terms of section 70(1)(a) of the Act as species which require a permit to carry out a restricted activity within an area specified in the Notice or an area specified in the permit, as the case may be.
- (2) Unless otherwise indicated in the Notice, no person may carry out a restricted activity in respect of a Category 2 Listed Invasive Species without a permit.
- (3) A person in control of a Category 2 Listed Invasive Species, or person in possession of a permit, must ensure that the specimens of the species do not spread outside of the land or the area specified in the Notice or permit.
- (4) Unless otherwise specified in the Notice, any species listed as a Category 2 Listed Invasive Species that occurs outside the specified area contemplated in sub-

regulation (1), must, for purposes of these regulations, be considered to be a Category 1b Listed Invasive Species and must be managed according to Regulation 3.

(5) Notwithstanding the specific exemptions relating to existing plantations in respect of Listed Invasive Plant Species, any person or organ of state must ensure that the specimens of such Listed Invasive Plant Species do not spread outside of the land over which they have control, or the specified area on such land, where any restricted activity is authorised in respect of any Listed Invasive Plant Species.

### 5. Category 3 Listed Invasive Species

- (1) Category 3 Listed Invasive Species are species that are listed by notice in terms of section 70(1)(a) of the Act, as species which are subject to exemptions in terms of section 71(3) and prohibitions in terms of section 71A of Act, as specified in the Notice.
- (2) Any plant species identified as a Category 3 Listed Invasive Species that occurs in riparian areas, must, for the purposes of these regulations, be considered to be a Category 1b Listed Invasive Species and must be managed according to regulation 3.

# CHAPTER 3 RESTRICTED ACTIVITES

### 6. Restricted activities

In addition to those activities defined in terms of section 1 of the Act as restricted activities, the following activities are hereby prescribed as restricted activities:

- (a) spreading or allowing the spread of, any specimen of a listed invasive species;
- (b) releasing any specimen of a listed invasive species;
- (c) the transfer or release of a specimen of a listed invasive fresh-water species from one discrete catchment system in which it occurs, to another discrete catchment system in which it does not occur; or, from within a part of a discrete catchment system where it does occur to another part where it does not occur as a result of a natural or artificial barrier;
- (d) discharging of or disposing into any waterway, water body or the ocean, water from an aquarium, tank or other receptacle that has been used to keep a specimen of an alien species or a listed invasive freshwater or marine species;
- (e) catch and release of a specimen of a listed invasive fresh-water fish or listed invasive fresh-water invertebrate species;
- (f) the introduction of a specimen of an alien or listed invasive species to off-shore islands; and
- (g) the release of a specimen of a listed invasive fresh-water fish species, or of a listed invasive fresh water invertebrate species into a discrete catchment system in which it already occurs.

### 7. General obligations

- (1) Any landowner, occupier of land, person in control of land or any person in control of a listed category 1a, 1b and 3 invasive species must prevent the escape and spread of the species, including its growth or spread of propagules, and must control any specimen that escapes or spreads.
- (2) A person entering the Republic, must declare any alien or listed invasive species on their person or in their luggage at ports of entry.

### 8. Import of alien species

Notwithstanding any Notice of exempted alien species published in terms of section 66(1) of the Act, an exempted alien specimen or any other alien specimen for which a permit is required, entering the Republic from outside the country, must be accompanied by veterinary health certificates or phytosanitary certificates as official declaration by the exporting authority that the risk of such specimen becoming a potential vector of invasive diseases or pathogens has been effectively managed.

### 9 Ports of entry for import

A person may not import a specimen of an alien or listed invasive species through a port of entry other than the following—

- (a) land ports—
  - (i) Beit Bridge border post;
  - (ii) Golela border post
  - (iii) Groblersbrug border post;
  - (iv) Lebombo border post;
  - (v) Maseru border post;
  - (vi) Vioolsdrift border post; or
- (b) airports and harbours—
  - (i) Cape Town International Airport;
  - (ii) O.R. Tambo International Airport;
  - (iii) King Shaka International Airport;
  - (iv) Cape Town Harbour; or
  - (v) Durban Harbour.

# CHAPTER 4 NATIONAL FRAMEWORK DOCUMENTS

### 10. Invasive Species Monitoring, Control and Eradication Plans

- (1) The Minister must-
  - (a) develop guidelines for the development of Invasive Species Monitoring, Control and Eradication Plans for listed invasive species as contemplated in section 76 of the Act:
  - (b) publish the guidelines contemplated in paragraph (a) on the Department's website; and
  - (c) review when necessary.
- (2) Management authorities of protected areas and organs of state in all spheres of government must—
  - (a) prepare their Invasive Species Monitoring, Control and Eradication Plans contemplated in section 76 of the Act based on priorities identified through the guidelines referred to in sub-regulation (1); and
  - (b) submit those plans to the Minister and to the Institute within three years of the publication of the guidelines contemplated in sub-regulation (1).
- (3) The Invasive Species Monitoring, Control and Eradication Plans referred to in subregulation (2) must be reviewed where necessary.

### 11. National register of alien and listed invasive species

The Minister must establish and maintain a national register of—

- (a) all listed invasive species in relation to which a permit has been issued and the conditions subject to which the permit has been issued;
- (b) all Invasive Species Monitoring, Control and Eradication Plans submitted to the Minister in terms of Regulation 10(2); and
- (c) all Invasive Species Management Programmes developed in terms of section 75(4) of the Act.

### 12. Invasive species research and biological control

- (1) A proposal on any research and biological control relating to any aspect of the invasiveness or potential invasiveness of an alien species or a listed invasive species or the prevention, eradication or control of such invasive or potentially invasive species must be lodged with the Institute or a body designated by the Institute, by—
  - (a) any organ of state or organisation conducting or funding such research;

- (b) any person conducting such research where the research is wholly or partially funded by an organ of state; or
- (c) any person to whom a permit is issued in terms of section 65(1) or 71(1) of the Act to carry out restricted activities for the purpose of research involving an alien or listed invasive species.
- (2) A proposal in terms of sub-regulation (1) must—
  - (a) be lodged prior to commencing the research;
  - (b) be lodged in writing; and
  - (c) contain the following information:
    - (i) the name of the researcher, his or her institution and contact details;
    - (ii) the species, pathway or vector being researched;
    - (iii) the hypothesis being tested;
    - (iv) the source of funding for the research; and
    - (v) the anticipated period of the research.
- (3) Any information provided in terms of sub-regulation (2)(c)(iii) is confidential.
- (4) The person or organ of state responsible for the research in sub-regulation (1) must, upon its completion or the termination of the research, submit a copy of any findings of that research to the Institute and the Minister.

### 13. National status reports

- (1) The Institute or a body designated by the Institute must, for the purpose of reporting as contemplated in section 11(1)(a)(iii) of the Act, submit a report on the status of listed invasive species to the Minister within three years of the date on which these regulations come into effect, and at least every three years thereafter.
- (2) A report contemplated in sub-regulation (1) must contain a summary and assessment of—
  - (a) the status of listed invasive species and other species that have been subjected to a risk assessment; and
  - (b) the effectiveness of these regulations and control measures based *inter alia* on information from—
    - (i) notifications received from owners of land regarding listed invasive species occurring on their land;
    - (ii) permits issued for listed invasive species;
    - (iii) Invasive Species Monitoring, Control and Eradication Plans received from organs of state and management authorities of protected areas; and

- (iv) emergency interventions and enforcement actions involving listed invasive species.
- (3) In preparing a report contemplated in sub-regulation (1), the Institute must carry out the research and monitoring necessary to identify the matters contemplated in sub-regulation (2).

# CHAPTER 5 REGISTERS AND NOTIFICATION

## 14. Register of permits

The issuing authority must—

- (a) establish and maintain a register of—
  - (i) all permits, including integrated permits, issued by that issuing authority;
  - (ii) all permits that were refused;
  - (iii) all permits issued by that issuing authority that were subsequently cancelled or suspended; and
  - (iv) all risk assessments that have been carried out in terms of sections 65(2) and 71(2) of the Act;
- (b) record in the register contemplated in paragraph (a)—
  - (i) in the case of applications that were granted, the unique number assigned to each permit;
  - (ii) the scientific and common name of the species for which the permit was issued, refused or cancelled;
  - (iii) whether the species was subjected to a risk assessment;
  - (iv) the restricted activity for which the permit was issued;
  - (v) any conditions under which the permit was issued;
  - (vi) the date on which the permit was issued;
  - (vii) the period of validity of the permit; and
  - (viii) the location where the restricted activity is to be carried out; and
- (c) provide the Institute with a copy of the register.

### 15. Register of notifications and directives

A competent authority must—

- (a) establish and maintain a register of-
  - (i) all notifications received in terms of section 73(2)(a) of the Act;

- (ii) the directives issued in terms of sections 69(2) or 73(3) of the Act; and
- (iii) all Invasive Species Monitoring, Control and Eradication Plans contemplated in regulation 10(2); and
- (b) provide the Department and the Institute with a copy of the register.

# CHAPTER 6 RISK ASSESSMENT

### 16. Risk assessment framework

- (1) A risk assessment undertaken for an application for an import permit for an alien species, or for the growing, breeding or in any other way propagating or causing to multiply of a listed invasive species, must consider—
  - (a) information regarding the relevant species, including—
    - (i) the taxonomy of the species, including its class, order, family, scientific name if known, genus, scientific synonyms and common names of the species;
    - (ii) the originating environment of the species, including climate, extent of geographic range and trends;
    - (iii) persistence attributes of the species, including reproductive potential, mode of reproduction, dispersal mechanisms and undesirable traits;
    - (iv) invasive tendencies of the species elsewhere and of close taxonomic relatives in South Africa and elsewhere;
    - (v) the history of domestic propagation or cultivation of the species, introductions and the extent of naturalisation in South Africa and elsewhere;
    - (vi) nutritional or dietary requirements of the species and, where applicable, whether it has a specialist or generalist diet;
    - (vii) the ability of the species to create significant change in an ecosystem; and
    - (viii) the potential to hybridise with other species and to produce fertile hybrids; and
  - (b) information regarding the restricted activity in respect of which the permit is sought, including—
    - (i) the nature of the restricted activity;
    - (ii) the reason for the restricted activity;
    - (iii) the location where the restricted activity is to be carried out;
    - (iv) the number and, where applicable, the gender of the specimens of the species involved; and

- (v) the intended destination of the specimens, if they are to be translocated; and
- (c) information regarding the receiving environment, including—
  - (i) climate match;
  - (ii) habitat;
  - (iii) disturbance regimes;
  - (iv) the presence of natural enemies, predators and competitors; and
  - (v) the presence of potentially reproductive compatible species.
- (2) A risk assessment carried out in terms of sub-regulation (1) must identify—
  - (a) the probability that the species will naturalise in the area in which the restricted activity is to be carried out or in any other area elsewhere in the Republic;
  - (b) the possible impact of the species on the biodiversity and sustainable use of natural resources of—
    - (i) the area in which the restricted activity is to be carried out; and
    - (ii) in any other area elsewhere in the Republic;
  - (c) the risks of the specimen serving as a vector through which specimens of other alien species may be introduced;
  - (d) the risks of the method by which a specimen is to be introduced or the restricted activity carried out serving as a pathway through which specimens of other alien species may be introduced; and
  - (e) any measures proposed in order to manage the risks.
- (3) Based on the information in sub-regulations (1) and (2), a risk assessment must consider—
  - (a) the likelihood of the risks being realised;
  - (b) the severity of the risks and consequences of the realisation of the risks for other species, habitats and ecosystems;
  - (c) the potential costs associated with the control of the species to minimise harm to biodiversity; and
  - (d) options for minimising the potential risks.
- (4) Notwithstanding the provisions of sub-regulation (2), an assessment of the risks and potential impacts on biodiversity for the importation into the Republic or the introduction into a province, of a specimen of an alien species or listed invasive species which was introduced into the Republic more than five years

- prior to the date on which these regulations come into effect, need only consider the matters contemplated in sub-regulations (2)(d), (e) and (3).
- (5) A risk assessment undertaken for an application for a permit to undertake any other restricted activity not mentioned in sub-regulation (1), must consider—
  - (a) information regarding the relevant species, including—
    - the taxonomy of the species, including its class, order, family, genus, scientific name, scientific synonyms and common names of the species; and
    - the source or place of origin of the species including the area, the type of facility and environmental parameters where species are kept;
  - (b) information regarding the restricted activity in respect of which the permit is sought, including—
    - (i) the nature of the restricted activity;
    - (ii) the reason for the restricted activity;
    - (iii) the location and GPS coordinates where the restricted activity is to be carried out;
    - (iv) the number and the sex of the specimens of the species involved;and
    - (v) intended destination of the specimens, if they are to be translocated;
  - (c) the possible impact of the species on the biodiversity and sustainable use of natural resources of—
    - (i) the area (Province and District) in which the restricted activity is to be carried out; and
    - (ii) in any other area elsewhere in the Republic; and
  - (d) any measures proposed in order to manage the risks.
- (6) Notwithstanding the provisions of sub-regulations (1), (2), (3), (4) and (5), the issuing authority may determine the information which must be considered in a risk assessment.
- (7) Notwithstanding the provisions of sub-regulations (1), (2), (3), (4) and (5), the issuing authority may request the applicant to provide additional information.

### 17. Risk assessment practitioner

(1) A risk assessment contemplated in regulation 16(1) must be undertaken by a risk assessment practitioner.

- (2) Notwithstanding sub-regulation (1), the Institute or the issuing authority may undertake the risk assessment.
- (3) A risk assessment practitioner contemplated in sub-regulation (1) must—
  - (a) have knowledge of the Act, these regulations and any guidelines that have relevance to the proposed application;
  - (b) have expertise in biodiversity matters;
  - (c) have expertise in conducting risk assessments;
  - (d) consult at least one relevant expert; and
  - (e) be in compliance with any requirements of the Natural Scientific Professions Act, 2003 (Act No. 27 of 2003).
- (4) The applicant must take all reasonable steps to verify whether the risk assessment practitioner complies with sub-regulation (3).
- (5) The issuing authority may determine whether a risk assessment practitioner is required to undertake a risk assessment in terms of regulation 16(5).

### 18. Risk assessment procedure

- (1) A risk assessment must be undertaken in accordance with the provisions of Regulation 16.
- (2) The applicant must provide the person undertaking the risk assessment with access to all information at the disposal of the applicant regarding the application, whether or not such information is favourable to the applicant.
- (3) The risk assessment report must be submitted, with the application, to the issuing authority.

### 19. Risk assessment report

- (1) A risk assessment report must contain the following details:
  - (a) The personal details and qualifications of the risk assessment practitioner carrying out the risk assessment;
  - (b) the personal details and qualifications of the expert consulted as required in regulation 17(3)(e);
  - (c) the risk of invasion as a result of the issuing of the permit;
  - (d) key economic, social and ecological considerations that will guide a decision on whether or not to issue a permit;
  - (e) any risk management measures that must be applied;
  - (f) a recommendation on whether or not a permit should be issued; and

- (g) any conditions or control measures that should apply if a permit is to be issued.
- (2) A risk assessment report prepared in terms of sub-regulation (1) may be submitted by the issuing authority to the Institute for scientific review.
- (3) The applicant will be responsible for the cost associated with the review.

## CHAPTER 7 ISSUING, AMENDMENT AND CANCELLATION OF PERMITS

### 20. Nature of a permit

- (1) A permit to authorise the carrying out of restricted activities, may be issued for—
  - (a) multiple restricted activities;
  - (b) multiple specimens of a species;
  - (c) multiple species; or
  - (d) multiple instances of the same restricted activity.
- (2) Notwithstanding the provision of sub-regulation (1)(d), a permit for the import into the Republic, including introduction from the sea, of an alien or listed invasive species is valid for one consignment unless otherwise specified in the permit.

### 21. Form and content of application for permit

- (1) An application for a permit contemplated in sections 65(1) or 71(1) of the Act must be made on a form obtained from the issuing authority.
- (2) An application referred to in sub-regulation (1) must—
  - (a) be made by the person to whom the permit must be issued or by such person's duly authorised representative;
  - (b) be accompanied by the applicable application fee specified in Annexure A;
  - (c) be accompanied by the details of the risk assessment practitioner;
  - (d) be accompanied by the risk assessment report contemplated in Regulation 19;
  - (e) include any other additional information as may be required by the issuing authority; and
  - (f) be lodged—
    - (i) with the issuing authority together with such additional copies as may be required by the issuing authority;
    - (ii) in a manner as required by the issuing authority; and

- (iii) with the original or certified documentation in support of the application, if required by the issuing authority.
- (3) Notwithstanding the provisions of sub-regulation (2)(b)—
  - (a) payment of the applicable application fee as set out in Annexure A does not apply to organs of state; and
  - (b) payment of the applicable application fee as set out in Annexure A may be waived for scientific institutions.

### 22. Consideration of application

The issuing authority must, on receipt of an application for a permit—

- (a) request, within 30 working days of receipt of the application and the risk assessment report, such further information as the issuing authority may require;
- (b) notify any province or municipality that may be adversely affected by the proposed activity, of the application;
- (c) have regard to the contents of the risk assessment report accompanying the application;
- (d) consider the application and any objections that have been lodged with regard thereto;
- (e) conduct such inspections as may be appropriate; and
- (f) reach a decision in accordance with regulation 23.

### 23. Decision

- (1) Subject to sub-regulation (5), a decision on an application for a permit must be made within 60 working days of receiving the risk assessment report or, where further information has been requested in terms of regulation 22(a), (d) or (e), within 30 working days of receiving such information or taking such action.
- (2) The issuing authority must—
  - (a) notify the applicant and any objectors contemplated in regulation 22(d) to the application of the decision in writing; and
  - (b) issue a permit in the name of the person authorised to carry out the restricted activity if the application has been approved.
- (3) The notification contemplated in sub-regulation (2)(a) must stipulate—
  - (a) the alien species or listed invasive species to which the application relates;

- (b) whether the decision relates to a single specimen or to multiple specimens of the same alien species or listed invasive species; and
- (c) the restricted activities involving the alien species or listed invasive species to which the application relates.
- (4) A permit may not be issued with retrospective effect.
- (5) Where the issuing authority for a permit in terms of these regulations, is also the authority for issuing any other authorisation for the same activity in terms of another law, the timeframes for making a decision in terms of such other law applies to a decision for a permit in terms of these regulations.

#### 24. Permit conditions

- (1) In addition to any permit conditions imposed in terms of section 88(2)(c) of the Act, the following conditions apply to all permits:
  - (a) A permit subject to regulations 31(2) and (3) may not be transferred to any other person; and
  - (b) the holder of the permit must take all the necessary steps to prevent the escape and spread of the species, including the growth or spread of seeds or any other specimens of the species, outside the area for which the permit is issued, and must take all necessary steps to control any specimen that escapes or spreads.
- (2) The issuing authority may issue a permit to carry out a restricted activity involving a specimen of an alien or listed invasive species subject to conditions, including but not limited to, control methods determined by the issuing authority, including the use of sterile varieties or the concurrent introduction of biological control agents.

## 25. Special provisions for research, biological control, display purposes, and interbasin transfer

- (1) Despite anything to the contrary in these regulations, a permit may be issued subject to permit conditions, to a scientific institution to carry out a restricted activity involving a specimen of an alien or listed invasive species, and must be issued under the conditions that the specimen must—
  - (a) be kept for identification or research purposes only;
  - (b) form part of a preliminary study into biological control methods; or
  - (c) form part of an effective biological control programme.
- (2) When issuing a permit for the specimens contemplated in sub-regulation (1), the issuing authority must determine—

- (a) restrictions and conditions, including quarantine conditions and conditions for the prevention of escape, for the importation or the carrying out of other restricted activities involving the specimen;
- (b) mechanisms for ensuring compliance with conditions determined in terms of sub-regulation 2(a);
- (c) procedures to be followed in the event of a specimen contemplated in subregulation 1(a) escaping or failure to comply with the conditions determined in terms of sub-regulation 2(a); and
- (d) restrictions and conditions for the release of the specimen into the wild.
- (3) Despite anything to the contrary in these regulations, a permit may be issued, subject to permit conditions, to a zoological or botanical institution to carry out a restricted activity involving a specimen of an alien or listed invasive species, including for display purposes.
- (4) A permit may not be issued in terms of sub-regulation (3) unless the relevant institution is able to demonstrate that an alien or listed invasive species cannot escape from the facility.
- (5) Despite anything to the contrary in these regulations, a permit may be issued, subject to permit conditions, for the transfer of a specimen of an alien or listed invasive species from one fresh-water system in which it occurs to another fresh-water system in which it does not occur through a state inter-basin transfer scheme.

### 26. Form and content of permits

- (1) A permit contemplated in regulation 23(2)(b) must—
  - (a) contain a unique permit number;
  - (b) specify—
    - (i) the name and identity number of the permit-holder;
    - (ii) the species to which the restricted activities relate:
    - (iii) the restricted activities for which the permit is issued;
    - (iv) the period for which the permit remains valid; and
    - (v) the conditions subject to which the permit is issued; and
  - (c) contain the signature of the issuing authority which must be endorsed by means of an official stamp.

### 27. Period of validity of permits

- (1) A permit issued in terms of these regulations may be issued for a period not exceeding ten years from the date of its issue or renewal thereof, as the case may be.
- (2) Notwithstanding the provisions of sub-regulation (1), a permit may be issued for a period exceeding ten years, if it is issued—
  - (a) for a restricted activity that will be carried out by a scientific institution;
  - (b) in terms of an integrated permit and the other law to which the permit relates provides for a longer period; or
  - (c) to an applicant who is in possession of a valid authorisation in terms of section 22(1)(a) or (b) of the National Water Act, 1998 (Act No. 36 of 1998) or an aquaculture permit.
- (3) Notwithstanding the provisions of sub-regulation (1), the issuing authority may specify a period of validity which exceeds ten years, based on the recommendations in the risk assessment report.

### 28. Amendment of permits

- (1) A permit may be amended for good reason as contemplated in section 93A of the Act, including by—
  - (a) adding or removing a condition;
  - (b) amending a condition;
  - (c) amending any detail on the permit; or
  - (d) correcting a technical or editorial error on the permit.
- (2) An issuing authority which issued a permit may in addition to sub-regulation (1), amend the permit condition stipulated therein if information is obtained by the issuing authority indicating that the species or the restricted activity for which the permit was issued is likely to have a detrimental impact on biodiversity.
- (3) The issuing authority must, before amending a permit, notify the permit-holder in writing of its intention to do so and provide the permit-holder with an opportunity to make representations as to why the permit should not be amended.
- (4) The issuing authority must, if it decides to amend the conditions of the permit, after consideration of any representations made in terms of sub-regulation (3), notify the permit-holder in writing—
  - (a) of the decision to amend the conditions of the permit; and
  - (b) of the date upon which the amendment becomes effective.

### 29. Return of cancelled permits

A permit that has been cancelled in terms of section 93 of the Act must be returned to the issuing authority within 30 calender days of the date of cancellation.

### 30. Renewal of permits

- (1) A permit-holder may apply for the renewal of a permit to the issuing authority who issued the permit.
- (2) An application contemplated in sub-regulation (1) must be—
  - (a) made at least 60 days before the expiry of the period for which the permit was issued;
  - (b) made on a form obtained from the issuing authority; and
  - (c) accompanied by the applicable renewal fee specified in Annexure A.
- (3) The provisions of regulation 24 apply to an application for the renewal of a permit.

### 31. Sale or transfer of alien and listed invasive species

- (1) If a permit-holder sells a specimen of an alien or listed invasive species, the new owner of such specimen must apply for a permit in terms of Chapter 7 of the Act prior to acquiring such specimen.
- (2) Notwithstanding the provisions of sub-regulation (1), a landowner or occupier of land may transfer a permit issued in terms of these regulations, to the new landowner or occupier of the same land specified in the permit.
- (3) A new owner or occupier of the land contemplated in sub-regulation (2), must notify the issuing authority within 30 days of such transfer, after which the issuing authority must issue an amended permit in the name of the new landowner or occupier, subject to any other conditions or amendments which may be required.

# CHAPTER 8 EMERGENCY SUSPENSION

## 32. Emergency suspension of permits

- (1) An issuing authority may suspend the operation of a permit if—
  - (a) it is necessary in order to control or eradicate a particular alien or listed invasive species;
  - (b) the carrying out of the restricted activity permitted in terms thereof poses an immediate significant threat to socio-economic circumstances, human health or the environment; or
  - (c) the alien or listed invasive species poses an immediate significant threat to socio-economic circumstances, human health or the environment.

- (2) Notice of the suspension of a permit must be in writing and must be served on—
  - (a) the permit-holder; or
  - (b) any other person acting on behalf of the permit-holder.
- (3) A suspension will be effective immediately upon notification, unless otherwise stated in the notice.
- (4) An issuing authority must, within 21 calender days of suspending a permit, initiate proceedings in terms of regulation 28 to amend the permit in order to address the cause of the emergency or may cancel a permit in terms of section 93 of the Act.
- (5) A suspension will remain in force until the finalisation of proceedings in terms of regulation 28 or section 93 of the Act.

# CHAPTER 9 COMPLIANCE AND ENFORCEMENT

### 33. Requests for directives

- (1) A request to issue a directive in terms of section 74(1) of the Act must be on a form that corresponds substantially with Annexure B.
- (2) A competent authority may waive any of the information required in Annexure B.

### 34. Withdrawal of directives

A directive issued under section 69(2) or section 73(3) of the Act may be withdrawn in writing by the competent authority if the circumstances giving rise to the issue of the directive no longer exist.

### 35. Limitation of liability

Section 49 of the National Environmental Management Act applies to any action taken in terms of these regulations.

### 36. Offences and penalties

- (1) Any offence committed in terms of section 101 of the Act must, upon conviction, carry the penalties referred to in section 102 of the Act.
- (2) Any person who contravenes or fails to comply with a provision of regulations 2(2) to (3), 3(2) to (5), 4(2) to (5), 5(2), 6, 7(1), 7(3), 8, 9, 12(1), 12(4), 17(1), 17(3), 17(4), 18, 24(1), 29, 31(1) and 31(3), is guilty of an offence and is liable, on conviction, to—
  - (a) a fine not exceeding five million rand, and in the case of a second or subsequent conviction, to a fine not exceeding R10 million; or

- (b) imprisonment for a period not exceeding 5 years and in the case of a second or subsequent conviction, to imprisonment not exceeding 10 years; or
- (c) to both such fine and imprisonment.

# CHAPTER 10 REPEAL, SHORT TITLE AND COMMENCEMENT

### 37. Repeal

The Alien and Invasive Species Regulations, 2014 published in Notice No. R. 598 of *Government Gazette* No. 37885 dated 1 August 2014, are hereby repealed.

### 38. Short title and commencement

These Regulations are called the *Alien and Invasive Species Regulations*, 2020 and take effect within 30 days of publication in the *Gazette*.

### **ANNEXURE A**

### **FEES**

Fees in connection with the application for alien and listed invasive alien species permits in terms of the National Environmental Management: Biodiversity Act, 2004

### **Explanatory Note:**

In terms of section 97(1)(f)(ii) of the Act, and in terms of the National Environmental Management Act, 1998, the Minister may prescribed the fees to be paid in connection with the lodging and consideration of applications for permits and appeals

Alien & Listed II		Activity	Fee	
	Invasive	Import into the Republic	R200.00	
	IIIVasivo	All restricted activities	R100.00	
		Renewal of permit	R50.00	
			Appeals	R50.00

### **ANNEXURE B**

Request to issue a directive in terms of section 74(1) of the National **Environmental Management: Biodiversity Act for a listed invasive species** 

## **Explanatory Note:**

For official use:

Date:

Reference number:

In terms of section 74(1) of the Act, any person may request the Minister, in writing, to issue a directive in terms of section 73(3) of the Act.

1. DIRECTIVI	E REQUES	STED BY:		
Full name				
Identity number				
Physical address				
				Code
Postal address				
				Code
Telephone number	(+27) (	)		
Fax number	(+27) (	)		
Cellular number	(+27) (	)		
E-mail address				

2.	DIRECTIVE TO BE ISSUED TO
Name	
2.1	SITE AND SPECIES DETAILS
2.1.1	Name (if applicable), province/magisterial district, erf number or physical address:
2.1.2	Listed invasive species involved (Attach list if space is insufficient):
Scient	tific name:
Comn	non name:
2.2	REASONS FOR REQUEST (Choose whichever is applicable)
	avention of permit requirements in terms of section 71(1) of the Act and/or iated permit conditions?
	If yes, substantiate:
2.2.2	Contravention of notification requirements in terms of section 73(2)(a) of the Act?
	If yes, substantiate:

2.2.1

2.2.3	Contravention of measure to prevent spreading / control / eradica 73(2)(b) of the Act?	ite in terms of section	
	If yes, substantiate:	Yes No	
	2.2.4 Previous directives not implemented?		
	If yes, substantiate:	Yes No	
	I, the undersigned, [FULL NAME:]		
	confirm that the above information is correct and complete to knowledge.	o the best of my	
	SIGNED: DAT	Ē:	