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GUIDANCE ON ENVIRONMENTAL LEGISLATION

South Africa

SIZA®

SUSTAINABLE AGRICULTURE IN SOUTH AFRICA

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Contents

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Introduction

As the SIZA Environmental Standard is based on South African legislation and benchmarked with globally recognised good agricultural practices, it is important that SIZA members, consultants, recognised third-party audit companies and auditors, as well as all other relevant stakeholders, maintain a good understanding of South African environmental legislation. The purpose of this document is to provide an overview of South African environmental legislation that is relevant within the agricultural context and to provide the necessary guidance on the practical implementation thereof. This document will also refer to resources that should be helpful to provide further information on environmental legislation. This document should not be seen as static and will be updated from time to time to reflect any pertinent changes in legislation and/or the interpretation thereof. This guideline should also not be used as a stand-alone source and should be read in conjunction with the SIZA Environmental Standard.

Implementation of South African Legislation

The Department of Agriculture, Land Reform and Rural Development (DALRRD) and the National Department of Environment, Forestry and Fisheries (DEFF) (or the relevant provincial environmental competent authority) are primarily responsible for legislation that is related to the agricultural sector. Although there are a number of Acts and policies that address the conservation of agricultural resources, the National Environmental Management Act 107 of 1998 (NEMA) forms the central pivot for environmental management in South Africa.

NEMA is the overarching legislation for environmental management in South Africa with several subsequent Acts as part of it. In terms of NEMA, an environmental authorisation may be required for agricultural projects. Specifically, NEMA contains listed activities (as indicated in Listing Notices 1, 2 and 3) for which an environmental impact assessment (EIA) process must be undertaken, and environmental authorisation obtained from the relevant competent authority before development can commence. Listing Notices 1 and 3 contain activities for which a Basic Assessment (BA) is required, and Listing Notice 2 contains activities for which a scoping or EIA process is required. As such, if an agricultural project falls within certain defined thresholds as specified in Listing Notices 1, 2, and 3, an environmental authorisation is required. The EIA process is subject to timeframes outlined in the NEMA EIA Regulations (2014, as amended) depending on the level of environmental assessment (i.e., BA or scoping/EIA) required. In addition, consideration must always be given to the principles contained in Section 2 of NEMA, including the precautionary principles, pollution prevention, and Section 28 of NEMA which relates to the general duty of care principles for agricultural projects. For any further information regarding the NEMA regulations, please view the following resources:

- ✓ Green Agri – Environmental Impact Assessments
- ✓ Agrifusion – Environmental Legislative Review

With South African agriculture being a dynamic industry, it is important that SIZA members and SIZA approved auditors familiarise themselves with agricultural activities that may require authorisation. Common activities that could trigger the NEMA regulations within the South African agricultural context are as follows:

1. Soil Development

Where the clearing of indigenous vegetation and the development of virgin soil (soil that has been left fallow and undisturbed for ≥ 10 years) takes place, the NEMA regulations will be applicable and a BA or EIA will be required as part of the authorisation process. The NEMA EIA regulations may also apply when any work is done within a watercourse or wetland. Activities and thresholds that may trigger NEMA regarding land development are as follows:

- Clearing ≥ 300 m^2 of endangered or critically endangered indigenous vegetation.
- Clearing ≥ 1ha of non-threatened indigenous vegetation.
- Infilling or excavating ≥ 10 m^3 within 32 m of a watercourses or ≥ 5 m^3 within 100 m of the coastal high watermark.
- Construction of water related activities (pipelines, pivots, dams, etc.)

Please note: Landowners often need to conduct maintenance activities in watercourses. This could be maintenance of existing infrastructure such as bridges, weirs, pipelines, bank stabilisation structures such as gabions, etc., or maintenance of the riverbanks. Such activities would typically trigger the listed activities related to conducting work in a watercourse, thereby moving, removing, or depositing 10 m^3 of material in the river. Should such activities be purely for maintenance (i.e., it does not involve the construction of new infrastructure), a Maintenance Management Plan (MMP) can be submitted to the relevant environmental authority instead of a BA application. Once such a plan is adopted, it is then used to regulate the maintenance activities. Such a plan is not limited to a once-off implementation but is designed for long-term application.

For further information regarding activities that might require environmental authorisation, please see additional resources below:

✓ Green Agri – List of Activities Under NEMA

Legal Reference

CARA – Conservation of Agricultural Resources Act 43 of 1983

NEMBA – National Environmental Management: Biodiversity Act 10 of 2004

NEMA – National Environmental Management Act 107 of 1998

2. Water Usage

All water uses in South Africa are governed by the National Water Act 36 of 1998 (NWA) to ensure the sustainable management of all water resources. The term "water use" refers to a specific water-related activity that is regulated by legislation. The NWA divides water-use into four categories which form the basis of establishing legal compliance.

i. Schedule 1

These water use activities are usually low volume and/or have a minimal or no impact on water resources. It is deemed *permissible* water use and does not require a licence or registration. These activities include:

- domestic water use
- storing and using run-off water from a roof
- small (non-commercial) gardening
- using water for recreational use (e.g., boating or skiing)
- using water for emergencies (e.g., firefighting or human consumption)

ii. Existing Lawful Use

The previous legislation which governed water use in South Africa (the Water Act 54 of 1956), was replaced by the NWA in 1998. In most instances, all water uses that commenced before the implementation of the NWA is considered to be existing lawful use (ELU). *However, all ELUs have to be validated and registered by the Department of Water and Sanitation (DWS)*. Relevant documentation and records should be available to confirm whether the water use was initiated prior to 1998.

iii. General Authorisations

A general authorisation replaces the need for a water user to apply for a water use license in terms of Section 21 of the NWA. Limits and conditions under which water use is permissible according to general authorisations, are published in Government Notices from time to time. Some of the general authorisations that are applicable to water use activities within the agricultural sector are as follows:

- Abstraction of surface water and groundwater
  Government Notice no. 538, published 2 September 2016
- Storage of (clean) water
  Government Notice no. 538, published 2 September 2016
- Storage and irrigation of water containing waste
  Government Notice no. 665, published 6 September 2013

- Impeding or diverting the flow of water in a watercourse
  Government Notice no. 509, published 26 August 2016

It is important to note that although a water use license might not be required, in some instances, it may still be necessary to *register* a water use activity in terms of a specific general authorisation.

iv. Water Use Licences

A "water use license authorisation" (WULA) is an authorisation that is issued by the DWS for a specific water-use activity as set out in Chapter 4, Section 21 of the NWA. A WULA is usually required when:

- The water use falls outside of the scope of Schedule 1.
- It is a new water use, i.e., initial implementation after 1998.
- The water use exceeds the parameters that are stipulated in the general authorisation.

Within the context of South African agriculture, the most relevant water uses are as follows:

Section 21(a) — Taking water from a water resource	This is the most common water use type within the agricultural context as it refers to the abstraction of significant volumes of water from a water resource such as a river, dam, irrigation canal, borehole/aquifer, wetland, or lake. In the agricultural industry, it is often also referred to as "water rights". Management should be able to confirm the total volumes of water that a site is legally allowed to abstract from a water source in writing. Confirmation documents from the DWS, relevant Catchment Management Agency (CMA), local Water User Association (WUA) or Irrigation Board (IB) are deemed acceptable. *Please note: Water records must confirm that the business does not exceed its registered allocation figures.*
Section 21(b) — Storing water	This water use refers to the act of storing significant volumes of (clean) water in a water storage structure such as a dam or reservoir. According to the revised general authorisation for the taking and storing of water as published in Government Notice no. 538 in Government Gazette no. 40243, published on 2 September 2016, the storage of more than 10 000 m^3 of water on a property must be registered with the responsible authority. Furthermore, dams that have a wall that is higher than 5 m **and** have a storage capacity of more than 50 000 m^3, are deemed to pose a safety risk and should be registered with the Dam Safety Office within the DWS.

Section 21(c) — Impeding or diverting the flow of water in a watercourse	This entails obstructing or diverting the natural flow of water within a watercourse, which will eventually be reverted back to the original watercourse. This could include the construction of in-stream dams or the construction of weirs and bridges.
Section 21(f) — Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall, or other conduit	This refers to directly discharging wastewater into an existing water source. For example, discharging packhouse or winery wastewater into a water resource. In most cases, this is regulated according to the general authorisation as published in Government Notice no. 665 of 6 September 2013.
Section 21(i) — Altering the bed, banks, course or characteristics of a water-course	This can include making any physical changes to a watercourse, such as widening the channel of a river. When infrastructure is developed close to a river, it often necessitates the alteration of the riverbed or banks. For example, when a bridge is built over a river. Furthermore, *any* activity within 500 m of the boundary of a wetland or estuary, is also classified as a 21(i) water use and requires a WULA.

Legal Reference:

NWA – the National Water Act 36 of 1998

For further information regarding the registration of water-use activities, please see additional resources below:

- ✓ Department of Water and Sanitation – Guideline to the National Water Act
- ✓ Green Agri – Water use licensing

3. Wastewater Management

The use, storage, and/or disposal of biodegradable industrial wastewater, that is wastewater that contains predominantly organic waste from industrial/commercial activities, is classified as a Section 21(e) and/or 21(g) water use activity by the National Water Act 36 of 1998 (NWA). This water use includes the disposal of wastewater through on-site disposal facilities such as direct soakaway systems, french drains, pit latrines, septic- and conservancy tank systems, as well as the reuse of wastewater for beneficial purposes, such as irrigation. This also includes the storage of waste-containing water for the purpose of either re-use or disposal. It is governed by the general authorisations published in Government Notice no. 665 in Government Gazette no. 36820, of 6 September 2013.

These general authorisations rely largely on the end-use of the wastewater-related activity, as well as permissible limits of wastewater volumes and water quality indicators (such as pH, electrical conductivity, faecal coliforms, etc.) to determine whether a certain activity requires formal authorisation or not. For example, the reuse of wastewater from packhouses or wineries for beneficial irrigation will have particular quality variable limits that should be adhered to, depending on the volumes of water irrigated per day.

Therefore, it is important for management to firstly establish what the end-use of the wastewater will be, i.e. will it be stored for the purpose of disposal or reuse; or will it be used for irrigation purposes? Once the specific end-use has been identified, the volumes of wastewater destined for the end-use should be established. It should preferably be measured on a daily basis by using a water meter on the incoming line (if it can be motivated that it is equal to the volume of wastewater being disposed). Depending on the volumes of wastewater destined for the specific end-use, it may also be required to determine the water quality parameters through regular water sampling and analyses in order to establish compliance with the general authorisation. If the specific water use activity falls within the parameters as set out by the general authorisations, further licensing or authorisation will not be required. However, in some instances, the wastewater-related activity (storage/disposal/reuse) should still be registered with the DWS or relevant authority in terms of the specific water use activity.

Some of the most common end-uses for wastewater produced by farms and packhouses may include the following:

- **On-site disposal**

  Where less than 1 m^3 of agri-industrial wastewater is disposed of into an on-site disposal facility (such as direct soak away systems or French drains), a licensing application is not required. However, evidence of the volumes of wastewater disposed of should be measured on a daily basis, in order to confirm that it is less than one cubic meter.

- **Municipal Disposal**

  When agri-industrial wastewater is disposed of directly into the municipal sewerage system or collected by the municipality for disposal, the municipality should be informed of the nature of the wastewater and formal permission should be obtained from the relevant authority.

- **Storage**

  Where less than 5 000 m^3 of wastewater is stored for the purpose of reuse, no formal authorisation is required. However, management should be able to confirm the storage capacity of the facility.

- **Beneficial irrigation**

  If management decides to reuse wastewater for the purpose of irrigation, evidence should be available to confirm that they adhere to the specific volume and quality parameters that are set out in the applicable general authorisation.

Legal Reference:

NWA – National Water Act 36 of 1998

For further information regarding the management of wastewater, please see additional resources below:

✓ General Authorisations for the Disposal of Wastewater
✓ Winetech Wastewater Guidelines

4. Disposal of General Waste to Land

The following actions are defined as "listed activities" in terms in terms of Government Notice No. 921 that *requires a BA process* as part of a Waste Management License Application as indicated by NEMA:

- The treatment of general waste using any form of treatment at a facility that has the capacity to process > 10 tonnes, but < 100 tonnes of waste.
- The disposal of general waste to land covering an area > 50 m^2, but < 200 m^2 and with a total capacity not exceeding 25 000 tonnes.

Please note that where the disposal of general waste to land is < 50 m^2, the following "Duty of Care" requirements must be adhered to to ensure good environmental management practices at the waste disposal or storage facility:

- The site should be situated outside a watercourse and above the 1:50 year flood line.
- It should be adequately fenced, locked, and marked with relevant warning signs.
- It should not overlie an area with shallow of emergent water tables.
- The waste should not cause any nuisance conditions.
- It should be located in previously disturbed areas (i.e., virgin soil should not be disturbed to make way for a waste disposal or storage facility).

Legal Reference:

NEMWA – The National Environmental Management: Waste Act 59 of 2008

For further information regarding the management and disposal of waste, please see additional resources below:

- ✓ National Norms and Standards for Disposal of Waste to Landfill
- ✓ Department of Environment, Forestry and Fisheries - Guideline to NEMWA
- ✓ WastePlan – Your Guide to Understanding Waste Management
- ✓ WastePlan – Guide to Waste Management and Recycling

5.

Clearing of Invasive Alien Plants

Invasive alien plant (IAP) species refers to plants that are not native in a country or region and has been brought in from another. Invasive alien species have a significant negative impact on the environment by causing direct habitat destruction, reducing the availability of water, and increasing the risk and intensity of wildfires. As governed by the National Environmental Management: Biodiversity Act 10 of 2004 (NEMBA) Regulation 75, landowners are under legal obligation to control the IAPs occurring on their property. For properties where IAPs are present and the total property is larger than 1 ha, landowners should be in possession of an IAP control and monitoring plan.

The Alien and Invasive Species Regulations (AIS) of 2014 list four different categories of IAPs that must be managed, controlled, or eradicated. Landowners should ensure that IAP control plans identify and classify the IAP species present on the property according to these categories, as this will have an impact on which species should be prioritised for clearing first. The categories are as follows:

- **Category 1a:** Most harmful species which requires immediate action to control and to eradicate. Any form of trade or planting is strictly prohibited.
- **Category 1b:** Invasive species that must be controlled and, wherever possible, removed and destroyed. Any form of trade or planting is strictly prohibited.
- **Category 2:** Invasive species or species deemed to be potentially invasive, for which a permit is required to carry out a restricted activity. This category includes commercially important species such as pine, wattle, and gum trees.
- **Category 3:** Invasive species that may remain in prescribed areas or provinces. Further planting, propagation or trade is, however, prohibited.

Since Category 1a species (such as Kangaroo wattle; Cane cactus; Scotch broom etc.) are deemed to be the highest risk, in most cases they should be the species prioritised for clearing, followed by Category 1b, 2 and 3 (depending on site-specific risk factors such as density, maturity and location). A suitable IAP control plan should contain a map of IAP coverage, as well as a worksheet with the following minimum information:

- Dominant IAP species present and their relevant categories
- Density
- Maturity
- Methods of clearing

This data will assist management to prioritise the phasing of IAP clearing. Areas that should be prioritised are mountain catchment and riparian areas, as well as areas that pose a high fire risk. It is ideal to prioritise lighter infested areas in order to prevent the build-up of seed banks. If IAPs are located within or alongside a river, it is ideal to start clearing in the headwaters, moving downstream.

Where the clearing of IAPs within a watercourse is done by hand and in line with best practice, it should not trigger the need for environmental authorisation. However, where machinery is used for clearing and the 10m^3 threshold is exceeded, an environmental authorisation in terms of the EIA regulations may be required. Where the clearing of IAPs within a watercourse forms part of an approved Management Maintenance Plan (MMP), no additional authorisation is needed.

Legal Reference:

CARA – Conservation of Agricultural Resources Act 43 of 1983

NEMBA – National Environmental Management Biodiversity Act 10 of 2004

Invasive Alien Species Regulations List, within NEMBA

Nature Conservation Ordinance Act 19 of 1974

For further information regarding the identification and clearing of invasive alien plants, please see additional resources below:

- ✓ Environment – Alien Invasive Plants List for South Africa
- ✓ Invasive Species South Africa — IAP Laws
- ✓ NEMBA – Monitoring Control & Eradication Plans
- ✓ Agricultural Research Council — Invasive Alien Plants and their Biological Control Agents
- ✓ African Legacy – Common Alien Invasives

6.

Cultivation of Invasive Alien Plants

Category 2 IAPs are deemed to be potentially invasive and may be cultivated under special circumstances, for example Beefwood trees (*Casuarina cunninghamiana*) used as windbreaks between orchards, and Gum trees (*Eucalyptus spp.*) used for honey production. According to NEMBA, the cultivation of these plants is a restricted activity and therefore requires a permit. Where Category 2 species are cultivated, a demarcation permit is required if a landowner wants to retain these plants for commercial purposes. Demarcation permits for retaining IAP species are issued by the DALRRD. However, it is recommended that management should rather consider using indigenous plant species as an alternative that will reduce the negative impact on the environment. It is important to note that no IAPs should be planted or be allowed to spread within 30 m of any watercourse.

Legal Reference:

CARA – Conservation of Agricultural Resources Act 43 of 1983

NEMBA – National Environmental Management Biodiversity Act 10 of 2004

7.

Conservation of Ecosystems and Endangered Species

Threatened ecosystems such as rivers and wetlands are protected by law and may not be disturbed, degraded, or developed without special permission from relevant authorities. All producers with areas of natural vegetation and/or threatened ecosystems and endangered species should incorporate a conservation plan as part of their EMP, which addresses the specific risks and management strategies affecting these areas.

Legal Reference:

NEMBA –National Environmental Management: Biodiversity Act 10 of 2004

NEMPAA - National Environmental Management: Protect Areas Act 57 of 2003

8. Fire Management

In terms of the National Veld and Forest Act 101 of 1998, landowners are responsible for the prevention and management of all fires that occur on their property. A fire management plan for the property is required that details emergency procedures in the case of controlled and uncontrolled fires. Assistance to comply with the Act can be provided where landowners and their neighbours form a Fire Protection Association (FPA).

Legal Reference:

NVFFA – The National Veld and Forest Fire Act 101of 1998

9. Heritage Management

Landowners may not destroy, damage, excavate, alter, deface, or otherwise disturb any heritage or archaeological site or material. To do so would constitute a criminal offence in terms of the National Heritage Resources Act 25 of 1999. Approval to alter heritage sites is usually regulated by the NEMA EIA Regulations, should the planned project/activity require environmental authorisation in terms of NEMA.

Legal Reference:

NHRA – National Heritage Resources Act 25 of 1999

Conclusion

In view of the complexity of legal interpretations, it is important that SIZA members, consultants, and auditors remain aware of SIZA's guidance and utilise this document, along with the SIZA Environmental Standard when implementing and assessing environmental legal compliance. It is crucial that all relevant stakeholders abide to these regulations so we may protect the environment and our planet for generations to come.

For more information, please feel free to contact SIZA through any of the below channels:

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Glossary of Terms

Basic Assessment	An assessment process that describes the environmental attributes of the site and an investigation into potential impacts. The process is aimed at assessing and reviewing the possible impacts of smaller projects and developments in a more concise manner.
Comply/Compliance	To meet local environmental laws and regulations and the SIZA standard code requirements.
Duty of Care	The responsibility of a person or organisation to take all reasonable measures necessary to prevent activities that could result in harm to other individuals and/or their property. If a person or organisation's actions do not meet this standard of care, then the acts are considered negligent, and any damages resulting may be claimed as negligence.
Environmental Audit	Systematic, independent, and documented process for obtaining evidence and evaluating it objectively to determine the extent to which environmental/conservation standards criteria are met.
Environmental Authorisation	The licence to conduct a certain activity under prescribed conditions.
Environmental Impact Assessment	A formal and comprehensive assessment process used to predict the environmental consequences of any development project. It is applied to large projects and developments that will potentially have a significant impact on the social, economic, and ecological environment.
Environmental Legislation	Legal requirements developed by governments aimed at protecting the environment from harmful actions.
Existing Lawful Use	A water use which has taken place any time during a period of two years before the commencement of the National Water Act (NWA), or which has been declared an existing lawful water use under Section 33 of the NWA.

General Authorisation	Certain activities are regulated by general authorisations that are published in Government Gazettes from time to time. It is not necessary to apply for these activities and they are authorised without a licence but should in most cases still be registered with the relevant authority.
Invasive Alien Plants	Plant species that are not native to an ecosystem and has the potential to cause ecological or economic harm within the invaded ecosystem.
Listed Activity	Activities for which a Basic Assessment or Environmental Impact Assessment is required for authorisation.
Virgin Soil	Soil that has been left fallow and undisturbed for more 10 years.
Waste	A material, substance, or by-product eliminated or discarded as no longer useful or required after the completion of a process.
Water Table	An underground boundary between the soil surface and the area where groundwater saturates spaces between sediments and cracks in rock.
Water Use Activity	A specific water-related activity that is regulated by legislation.