

ALIEN INVASIVE VEGETATION AND WEED CONTROL

METHOD STATEMENT

GARDEN WALK MALL



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1. DEFINITIONS

Defects notification period

A period of usually twelve months following the completion of construction, during which the applicant can require the contractor to return to the site to complete any omissions in the works and to make good any defective work or materials.

Environment

The surroundings in which humans exist and which comprise:

- The land, water and atmosphere of the earth.
- Micro-organisms, plant and animal life.
- Any part or combination of a) and b) and the interrelationships among and between them.
- The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that can influence human health and well-being.

Environmental Management Programme (EMPr)

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.

Herbicide

Herbicide, also commonly known as weed killers, are chemical substances used to control unwanted plants. Herbicides control specific weed species, while leaving the desired vegetation relatively unharmed. Non-selective herbicides can be used to construction sites, as they kill all plant material which they encounter.

Landscape

Land modified for human use and occupation, embracing both the natural (wilderness) environment and the urban.

Management actions

Practical actions aimed at achieving management objectives and targets.

Management objectives

Desired outcome of management measures for mitigating negative impacts and enhancing the positive impacts related to project activities and aspects (i.e. risk sources).

Monitoring

A systematic and objective observation of an organization's activities and services conducted and reported on regularly.

Natural Vegetation

All existing vegetation species, indigenous or otherwise, of trees, shrubs, groundcover, grasses and all other plants found growing on the site.

Protected Plants

Plant species officially listed on the Protected Plants List (each province has one), and which may not be removed or transported without a permit to do so from the relevant provincial authority.

Reinstatement

Reinstatement is defined as the return of a disturbed area to a state, which approximates the state (where possible), which it was before disruption.

Riparian Habitat

The physical structure and associated vegetation of the areas associated with a watercourse which are commonly characterised by alluvial soils, and which are inundated or flooded to an extent and with a frequency sufficient to support vegetation of species with a composition and physical structure distinct from those of adjacent land areas.

Sensitive environmental features

Environmental features protected by legislation (e.g. heritage resources), or identified during the EIA as sensitive through specialists' findings and input received from Interested and Affected Parties.

Subsoil

The soil horizons between the topsoil horizon and the underlying parent rock.

Topsoil

Topsoil can be regarded as the fertile upper part or surface of the soil.

Transplanting

The removal of plant material and replanting the same plants in another designated position.

Veld

Unimproved areas of natural vegetation.

Watercourse

A geomorphological feature characterized by the presence of a streamflow channel, a floodplain and a transitional upland fringe seasonally or permanently conveying surface water.

Weeds and Invader Plants

Weeds and invader plants are defined as undesirable plant growth that shall include, but not be limited to all declared category 1, 2 and 3 listed invader species as set out in the Conservation of Agricultural Resources Act (No 43 of 1983) regulations. Other vegetation deemed to be invasive should be those plant species that show the potential to occupy in number, any area within the defined construction area.

Wetland

Land where a surplus of water (i.e. waterlogging) is the key factor determining the nature of the soil development as well as the types of plants and animals living at the soil surface.

2. PURPOSE

The purpose of this document is to describe and define the methods to be used by Mike Buyskes Construction for alien invasive vegetation and weed control on the Garden Walk Mall Scope of work.

This procedure will apply to the controlling and eradication of alien invasive vegetation on the construction site servitude, site camp and lay down areas. Any disturbed sites during construction will be correctly managed and maintained to ensure that invasive species do not occur in the construction footprint, during both the construction phase as well as the Defects Notification Period (12 months).

3. LEGISLATIVE FRAMEWORK

All project activities must comply with relevant South African legislation and regulations. Specific legislation that must be complied with includes, but is not necessarily limited to:

1. Hazardous Substances Act (Act No. 15 of 1973);

2. Conservation of Agricultural Resources Act (No. 43 of 1983) as amended in March 2001;
3. Occupational Health and Safety Act (No. 85 of 1993);
4. Constitution of the Republic of South Africa (No. 108 of 1996);
5. National Environmental Management Act (No. 107 of 1998);
6. National Water Act (No. 36 of 1998);
7. National Veld and Forest Fire Act (No. 101 of 1998);
8. National Heritage Resources Act (No. 25 of 1999);
9. National Environmental Management Protected Areas Act (No. 57 of 2003);
10. National Environmental Management: Biodiversity Act (No. 10 of 2004); and
11. National Environmental Management Air Quality Act (Act No. 39 of 2004);
12. National Environmental Management: Waste Act (No. 59 of 2008).

This Method Statement has also been developed in line with the requirements of the Environmental Authorisation and Environmental Management Programme for the project.

4. PROCESS OVERVIEW

It is expected that alien invasive vegetation species will establish as pioneer species on areas disturbed during the construction process. Such areas will include the pipeline servitude, site camp areas, areas where imported fill is used and lay down areas. An alien invasive vegetation eradication programme will be implemented whereby at regular intervals the construction footprint will be inspected for alien invader species.

Should there be any identified weeds; these will be removed, controlled and managed prior flowering. Two techniques can be utilised and these are:

1. Manual: Manually pulling the seedlings and small and shallow-rooted plants out of the ground, making sure to include the roots that would otherwise allow them to resprout.
2. Herbicides: Chemical removal for weeds will be adopted where manual eradication/control is no longer effective, and its application shall be in accordance with set specifications and under supervision of a qualified technician so as to obviate environmental degradation.

This will be undertaken by the contractor (Mike Buyskes Construction) and a designated subcontractor (authorised service provider contracted for weed control).

5. GENERAL MEASURES

- The construction footprint will be kept as small as possible and within the servitudes specified in the EMP, to minimize damage to existing indigenous vegetation.
- Any weed or alien species that germinate during the contract period, either on the servitude or on topsoil stockpiles shall be removed by means of the above-mentioned techniques before flowering.

- Alien species debris removed from the site will not be burnt on site. Due to the importance of riparian vegetation the establishment of alien species in such areas must be prevented.
- Alien species of debris removed from the site will not be stockpiled in any water course which might result in the dispersion of seeds.
- Imported fill and other materials shall be free of alien species.
- Rehabilitation of disturbed areas will commence as soon as possible after construction in such areas has been completed. Only indigenous species will be used during the rehabilitation phase.
- A continuous awareness program on alien invader vegetation species will be undertaken with all employees and communicated by the Environmental Officer during toolbox talks.
- All employees tasked to eradicate invader plants on site will be trained on purpose for the removal of invader plants. The types of invader plants to be removed from site and the modus operandi to be adopted when eradicating the invader plants on site. The authorized service provider will eradicate all alien invasive vegetation using a chemical approved by the EMS Manager. The chemical should kill both the above and below ground parts of the vegetation, however care must be taken not to damage the non-targeted indigenous species (s) on site.
- All removed alien species of debris will either be buried on site or removed to an authorized organic waste disposal facility, to be selected by Mike Buyskes Construction.
- All alien invasive sapling slashed along the servitude must not become a hazard to vehicles traversing along the line and cause punctures to the tires
- It is the responsibility of the contractor and subcontracted service provider to:
 - Monitor the re-growth of invasive vegetative material.
 - Control invasive plant species and noxious weeds by means of extraction, cutting or other approved methods.
 - For planted areas that have failed to establish, replace plants with the same species as originally specified (preferably indigenous species); and
 - Establish further specifications for maintenance.

6. CONSTRUCTION PROCEDURES

Materials and Equipment to be used

The tools and equipment used as part of manual and chemical alien plant control will be up to the authorised service provider subcontracted to the Mike Buyskes Construction and Mike Buyskes employees to manage the invasive weeds.

7. RESPONSIBILITY

It is the responsibility of the Site Supervisor, Mike Buyskes Construction and the authorized service provider to ensure that the above measures are implemented effectively.

8. GENERAL

Modification of this method statement may be required from to time.

Approved by	Revision Number	0
Name	Signature	Date