



Government  
of South Australia

## Declared Plant Policy

*This policy relates to natural resources management under section 9(1)(d) of the Landscape South Australia Act 2019 (the Act), enabling co-ordinated implementation and promotion of sound management programs and practices for the use, development or protection of natural resources of the State. Specifically, this policy provides guidance on the use and management of natural resources relating to the prevention or control of impacts caused by pest species of plants that may have an adverse effect on the environment, primary production or the community, as per object s7(1)(f) of the Act.*

### arum lily (*Zantedeschia aethiopica*)

Arum lily is a perennial from South Africa that has been a popular ornamental since colonial times. It is a garden escape that occupies wetlands and other sites in the higher rainfall regions of South Australia.

#### Management Plan for Arum Lily

##### Outcomes

- Protect the integrity of native riparian vegetation by preventing further spread and minimising the impacts of existing arum lily infestations.
- Maintain water flow and quality in watercourses.

##### Objectives

- Achieve control of existing arum lily infestations that threaten priority aquatic, riparian and significant native vegetation areas.
- Prevent the further spread and establishment of arum lily into priority areas.

##### Best Practice Implementation

- Regional landscape boards and Green Adelaide to identify priority aquatic, riparian and significant native vegetation sites affected or threatened by arum lily.
- Control of priority infestations.
- To assist local control programs, any sale and movement to be prevented.
- Increase awareness about the impacts of arum lily.

##### Regional Implementation

Refer to regional management plans for further details.

## arum lily policy

Region	Actions
Alinytjara Wilurara	Limited action
Eyre Peninsula	Limited action
Green Adelaide	Contain spread
Hills and Fleurieu	Contain spread
Kangaroo Island	Limited action
Limestone Coast	Monitor
Murraylands and Riverland	Limited action
Northern and Yorke	Limited action
South Australian Arid Lands	Limited action

### Declaration

To implement this policy, arum lily is declared under the *Landscape South Australia Act 2019* throughout the whole of the State of South Australia. Its movement or transport on a public road, or its sale, are prohibited. Green Adelaide and Hills and Fleurieu Landscape Board may require land owners to control arum lilies growing on their land. These two authorities are required to control plants on road reserves and may recover costs from the adjoining land owners.

Arum lily is declared in category 3 under the Act for the purpose of setting maximum penalties and for other purposes. Any permit to allow its sale or road transport can only be issued by a regional landscape board or Green Adelaide pursuant to section 197.

Under the *Landscape South Australia (General) Regulations 2020*, Regulation 27 specifies the conditions under which a person is exempt from the operation of section 186 and may transport wool, grain or other produce or goods carrying arum lily on public roads. Note that certain produce or goods may be excluded from this general movement exemption by Gazettal Notice of the Chief Executive of the Department for Environment and Water (DEW).

The following sections of the Act apply to arum lily throughout each of the regions noted below:

Sections of Act	Region									
	AW	EP	GA	HF	KI	LC	MR	NY	SAAL	
186(1) Prohibiting entry to area										
186(2) Prohibiting movement on public roads	X	X	X	X	X	X	X	X	X	
188(1) Prohibiting sale of the plant	X	X	X	X	X	X	X	X	X	
188(2) Prohibiting sale of contaminated goods										
190 Requiring notification of presence										
192(1) Land owners to destroy the plant on their properties										
192(2) Land owners to control the plant on their properties			X	X						
194 Recovery of control costs on adjoining road reserves			X	X						

Sections 186(2) and 188(1) do not apply to detached inflorescences ('cut flowers') as used by florists.

Sections 192(2) and 194 do not apply to arum lilies planted and maintained for domestic or commercial purposes further than 100m from any wetland or watercourse.

## **Review**

This policy is to be reviewed by 2025, or in the event of a change in one or more regional management plans for arum lily.

## **Weed Risk**

### Invasiveness

Spread of arum lily is almost entirely by humans, through deliberate planting and dumping of rhizomes in garden waste. The seed is moved short distances downstream by water.

### Impacts

Infestations are generally confined to areas along rivers, creeks or swampy sites. Arum lily forms dense stands that may displace all species within the understorey layer. These infestations can block the flow of small streams.

The plant is toxic to humans and livestock but cases of poisoning are very rare as it is unpalatable.

As a plant that is immediately recognisable as alien, it diminishes the aesthetic value of conservation areas.

### Potential distribution

The potential distribution of arum lily is described as being in the southern agricultural areas of South Australia, south of the northern Yorke Peninsula

Arum lily grows in shade or moderately exposed conditions and tolerates flooding up to 300 mm deep. Although normally evergreen, it will survive occasional frost by regrowing from the rhizome in spring but does not establish in frost-prone areas.

## **Feasibility of Containment**

### Control costs

Arum lily is easily controlled by spraying or cutting and swabbing with commonly available herbicides under a current Australian Pesticides and Veterinary Medicines Authority (APVMA) permit.

### Persistence

The seed of arum lily only survives one year in the soil, allowing the destruction of an infestation with a single well-timed herbicide treatment. On the other hand, the plant will persist indefinitely from the rhizomes.

### Current distribution

Arum lily is found along streams and wet ground in the high rainfall parts of the State. Most infestations occur in the Hills and Fleurieu region. It is also present on Kangaroo Island, the southern end of Eyre Peninsula, the lowest reaches of the Murray and the lower South East.

## State Level Risk Assessment

Assessment using the Biosecurity SA Weed Risk Management System gave the following comparative weed risk and feasibility of containment scores by land use:

Land use	Weed Risk	Feasibility of control	Response at State Level
Aquatic (riparian)	low 23	very high 3	monitor

## Considerations

Risk assessment indicates a management action at State level of monitoring in native aquatic vegetation. However, the local weed risk of arum lily in high rainfall areas is higher, notably in the Green Adelaide and Hills and Fleurieu regions, where a strategy of containment by enforced control in some situations is justified. In the Limestone Coast region, where there are potential habitats in wetlands, arum lily is monitored. In other regions, action is limited to enforcing the prohibition on sale and transport since dispersal of arum lily is mainly by human actions.

Arum lily was grown at the Adelaide Botanic Gardens by 1858 and was first recorded as naturalised in South Australia in 1903, at Waterfall Gully.

The wild-type arum lily is so common that it is rarely sold commercially now. Some cultivars including 'Green Goddess' with green-stained spathes and the compact 'Childsiana' are still on the market. The coloured, winter-dormant zantedeschias derived from *Z. elliotiana* and *Z. rehmannii* have not escaped from cultivation and do not produce viable hybrids with *Z. aethiopica*.

## Synonymy

*Zantedeschia aethiopica* (L.) Spreng., Syst. Veg. (ed. 16) 3: 765 (1826).

Basionym:

*Calla aethiopica* L., Sp. Pl. 2: 968 (1753).

Nomenclatural synonyms:

*Colocasia aethiopica* (L.) Link, Diss Bot. Suerin 77 (1795).

*Richardia aethiopica* (L.) Spreng., Syst. Veg. (ed. 16) 3: 765. (1826).

Taxonomic synonyms:

*Calla ambigua* Salisb., Prodr. Stirp. Chap. Allerton 262 (1796).

*Richardia africana* Kunth, Mém. Mus. Par. 4: 433 (1818).

Other common names include calla lily, lily of the Nile, pig lily, richardia, St. Joseph's lily, trumpet lily and white arum lily.

Hon David Speirs MP  
**Minister for Environment and Water**

Date: 28 March 2021