



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.*

### alisma (*Alisma lanceolatum*)

Alisma is a perennial water weed: an emergent plant with large broad leaves and herbaceous flowering stems from a short underwater rhizome. It is found at a few localities in the Southern Lofty region of South Australia.

#### Management Plan for Alisma

##### Outcomes

- Maintain wetlands free of major weed threats.

##### Objectives

- Prevent spread of alisma beyond its current range in South Australia.
- Control existing infestations of alisma.
- Avoid damage to populations of the native *Alisma plantago-aquatica*

##### Best Practice Implementation

- Regional landscape boards and Green Adelaide to respond to any reports of sales of alisma.
- Landscape boards in regions where alisma is declared under section 192(2) to delimit infestations and prioritise those that threaten significant native vegetation sites for control.
- Regional landscape boards and Green Adelaide to inspect waterways and wetlands for the presence of aquatic weeds.

##### Regional Implementation

Refer to regional management plans for further details.

## alisma policy

Region	Actions
Alinytjara Wilurara	Prevent sale and road transport
Eyre Peninsula	Prevent sale and road transport
Green Adelaide	Destroy infestations
Hills and Fleurieu	Destroy infestations
Kangaroo Island	Prevent sale and road transport
Limestone Coast	Prevent sale and road transport
Murraylands and Riverland	Prevent sale and road transport Destroy infestations (in high rainfall areas)
Northern and Yorke	Prevent sale and road transport
South Australian Arid Lands	Prevent sale and road transport

### Declaration

To implement this policy, alisma 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 by itself or as a contaminant, or its sale by itself or as a contaminant are prohibited. The Green Adelaide, Hills and Fleurieu, and Murraylands and Riverland landscape boards and Green Adelaide may require land owners to control alisma plants growing on their land. These authorities are required to control alisma on road reserves.

Alisma 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 the regional landscape board 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 alisma on public roads. Regulation 28 specifies conditions under which a person is exempt from the operation of section 188(2) and may sell wool, grain or other produce or goods carrying alisma. Note that certain produce or goods may be excluded from these general movement and sale exemptions by Gazettal Notice of the Chief Executive of the Department for Environment and Water.

The following sections of the Act apply to alisma 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	X	X	X	X	X	X	X	X	X
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			X		
194 Recovery of control costs on adjoining road reserves									

### Review

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

## Weed Risk

### Invasiveness

Alisma grows in water to 45 cm deep and persists on mud after the water levels fall. It usually occupies the zone between the channel bank and taller aquatic plants, such as reeds growing in deeper permanent water.

The seeds are small, numerous, and dispersed by floating on water. They germinate on wet mud, and the few seedlings that become established before the water level rises again form perennial clumps by proliferating from the base. Unlike sagittaria, it does not spread by stolons.

### Impacts

As an emergent aquatic perennial that forms dense stands, alisma has the potential to interfere with stream flow and reduce biodiversity by excluding other vegetation. Due to its similarity to the native *Alisma plantago-aquatica* it could displace this species from habitats.

### Potential distribution

Alisma has a wide potential distribution throughout South Australia; albeit confined to drainage channels, dams and streams.

## Feasibility of Containment

### Control costs

Spraying with glyphosate destroys all above-ground parts but a second treatment is often necessary to control regrowth from the rhizome.

### Persistence

Alisma plants regenerate from the rhizomes and also grow from seed.

### Current distribution

Alisma is found at localities in the Adelaide Hills and Fleurieu Peninsula including Mylor, Happy Valley Reservoir and the Onkaparinga River, but is scattered and less common than *Alisma plantago-aquatica*. It is also established in Western Australia, New South Wales, Victoria and Tasmania.

## 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	medium 42	very high 9	contain spread alert

## Considerations

*Alisma lanceolatum* was introduced to Australia in the 19th century from its native range in Eurasia. It had become established in the Onkaparinga River system by 1900, and later in some reservoirs and streams in Adelaide Hills.

It closely resembles another widespread species, *Alisma plantago-aquatica*, which is regarded as native to Australia because it was probably introduced by migrating birds long before European settlement. All *Alisma* in South Australia were treated as *A. plantago-aquatica* in the 1943 Flora of SA, but called *A. lanceolatum* in the 1986 Flora. The confusion between the two species has been resolved by Conran (2012). Care must be taken to properly identify alisma prior to any control program, so that the similar native species is not inadvertently targeted.

The Hills and Fleurieu, and Murraylands and Riverland regions aim to prioritise infestations of alisma for control. In the remainder of the State there is limited action; sale and transport are prohibited in order to contain the weed to its current distribution.

## Synonymy

*Alisma lanceolatum* With., Bot. Arr. Brit. Pl. ed.3, 2: 362 (1796).

Taxonomic synonym:

*Alisma stenophyllum* Sam., Svensk Bot. Tidskr. 16: 39 (1922).

Other common names include narrow-leaved water plantain.

## References

Conran, J.G. (2012) The genus *Alisma* (Alismataceae) in South Australia. *J. Adelaide Bot. Gard.* 25: 11-16.

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**Minister for Environment and Water**

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