



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.

leafy elodea (*Egeria densa*)

Leafy elodea is a submerged aquatic perennial that builds up dense infestations in shallow, nutrient-rich, slow-moving or stationary water. It is known from a few localities in South Australia.

The declared plant elodea (*Elodea canadensis*) is similar to leafy elodea, and is the subject of a separate policy.

Management Plan for Leafy Elodea

Outcomes

- Maintain waterways free of blockages and keep wetlands free of major weeds.

Objectives

- Prevent further introduction of leafy elodea to waterways and wetlands.
- Contain and destroy any infestations as they occur.

Best Practice Implementation

- Leafy elodea infestations to be contained and destroyed as discovered.
- Sale and movement of leafy elodea to be prevented.
- Regional landscape boards and Green Adelaide to inspect waterways and wetlands for the presence of aquatic weeds.
- Regional landscape boards and Green Adelaide to inspect premises including pet shops, aquarium supplies and garden shops where leafy elodea might be sold.

Regional Implementation

Refer to regional management plans for further details.

leafy elodea policy

Region	Actions
Alinytjara Wilurara	Prevent entry or sale; destroy if detected
Eyre Peninsula	Prevent entry or sale; destroy if detected
Green Adelaide	Prevent entry or sale; destroy if detected
Hills and Fleurieu	Prevent entry or sale; destroy if detected
Kangaroo Island	Prevent entry or sale; destroy if detected
Limestone Coast	Prevent entry or sale; destroy if detected
Murraylands and Riverland	Prevent entry or sale; destroy if detected
Northern and Yorke	Prevent entry or sale; destroy if detected
South Australian Arid Lands	Prevent entry or sale; destroy if detected

Declaration

To implement this policy, leafy elodea is declared under the *Landscape South Australia Act 2019* throughout the whole of the State of South Australia. Its entry to South Australia, movement or transport on a public road by itself or as a contaminant, or sale by itself or as a contaminant are prohibited. Notification of infestations is necessary to ensure these are destroyed. Land owners are required to destroy any leafy elodea plants growing on their properties.

Leafy elodea is declared in category 1 under the Act, for the purpose of setting maximum penalties and for other purposes. Any permit to allow its entry, road transport or sale can only be issued by the Chief Executive of the Department for Environment and Water or their delegate 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 leafy elodea on public roads, or bring them into the State. 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 leafy elodea. Note that certain produce or goods may be excluded from these general movement and sale exemptions by Gazettal Notice of the Chief Executive, DEW.

The following sections of the Act apply to leafy elodea 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	X	X	X	X	X	X	X	X	X
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	X	X	X	X	X	X	X	X	X
192(1) Land owners to destroy the plant on their properties	X	X	X	X	X	X	X	X	X
192(2) Land owners to control the plant on their properties									
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 leafy elodea.

Weed Risk

Invasiveness

Introduction of leafy elodea to a water body depends on human intervention, and is most likely to occur by the dumping of aquarium contents. Its high growth rate under ideal conditions would allow it to increase rapidly. It is not known to produce seed in Australia.

It spreads vegetatively when water flow moves stem fragments long distances to take root and form new infestations elsewhere. Fragments can be transported on boats or flood debris.

Impacts

Leafy elodea is a submerged plant that grows from rhizomes anchored in the mud. It can form dense mats just below the surface of a water body that reduce light penetrating into the water and displace native aquatic vegetation, and may deplete oxygen in the water when they decay.

Infestations can reduce the potential of waterways for recreational uses such as fishing and boating.

Potential distribution

Leafy elodea is adapted to warm-temperate climates where the water temperature rarely exceeds 30°C, and is found in slow-moving freshwater bodies including rivers, lakes, ponds and dams, to depths of 7 metres. It could grow in streams, ponds and dams across the southern part of South Australia as well as the River Murray system.

Feasibility of Containment

Control costs

Submerged aquatic weeds are difficult to eradicate from large water bodies where adding herbicide to the water can pose risks of off-target damage and can be expensive. Underwater vegetation may be harvested and used as compost, but this effect impacts equally on native and introduced species.

Persistence

Regrowth would occur after control by cutting or dredging, and may be exacerbated by re-introduction from cultivation.

Current distribution

Occasional outbreaks of leafy elodea have been found in the lower River Torrens and backwaters of the River Murray. These remain visible only for a few months while conditions are favourable, and may not persist.

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 51	very high 5	contain spread alert

Considerations

Native to South America, leafy elodea was introduced to Australia as an aquarium plant and was formerly much used as a laboratory plant in highschool science classes. It is naturalised in Western Australia, Queensland, New South Wales, Victoria and Tasmania.

Due to its medium weed risk, localised occurrence in the State and very high feasibility of control, leafy elodea is regarded as a State Alert Weed and a high priority surveillance target to increase the likelihood of early detection.

Synonymy

Egeria densa Planch., Ann. Sci. Nat., Bot. sér.3, 11: 80 (1849)

Nomenclatural synonyms:

Anacharis densa (Planch.) Vict., Contr. Lab. Bot. Univ. Montréal 18: 41 (1931)

Elodea densa (Planch.)Casp., Monatsb. Berl. Acad. 49 (1857)

Philotria densa (Planch.) Small, Man. S.E. Fl. [Small] 28 (1933)

Elodea canadensis var. *gigantea* is a name that has never been formally published but has been used in the horticultural trade.

Other common names include Brazilian elodea, anacharis and dense waterweed.

Hon David Speirs MP

Minister for Environment and Water

Date: 28 March 2021