

Current recommended practice

Removal of vegetation from a watercourse, lake or floodplain

The *Landscape South Australia Act 2019* (the LSA Act) requires a water affecting activity (WAA) permit for a range of activities that could impact on water resources, including the destruction of vegetation growing in or around a watercourse, lake or floodplain (section 104(4)(g) of the LSA Act).

Managing these activities helps protect our natural systems and water-dependent ecosystems, maintain water quality for all and minimise impacts on other water users.

A number of activities are exempt from requiring a permit. These are described in [the Northern and Yorke WAA Control Policy](#) (pages 37 – 40, Table 2.3.1).

As well as these exemptions, this current recommended practice (CRP) information sheet outlines additional conditions under which you may be exempt.

These exemptions have been developed to help cut through red tape while assisting you to meet your statutory requirements under the LSA Act.

You will not have to apply for a water affecting activity permit under section 104(4)(g) of the LSA Act when removing the plant species and the removal method defined in Table 1 of this document.

Removal methods

Different removal methods are effective on different weed species and trees of different ages. Seedlings can be successfully controlled by hand pulling when soil is moist.

More mature trees may need to be cut down, with or without the use of herbicide, and usually require follow up treatment.

There are special requirements for herbicide use around water, which include a selection of safe products and the following of correct methods of application. Herbicide spray drift of fine spray droplets away from the target area can cause off-target damage to plants, aquatic environments and humans.

All users have a moral and legal responsibility to prevent herbicides (and other pesticides) from drifting and contaminating or damaging neighbouring properties and off-target species.

Access to weed species can be challenging in and around watercourses. In these instances an appropriately-qualified weed control contractor should be engaged to undertake the works.

Timing of the works

Ideally, vegetation removal should begin in early summer and revegetation completed before the following winter.

Removing vegetation in high flow areas of watercourses should be carried out in late spring and early summer. If you are unsure of the best time of year to remove your vegetation, please contact your local natural resources centre.

Declared pest plants

Pest plants that are a significant threat to agriculture, the natural environment and public health and safety are declared plants under the LSA Act. Land owners have a legal responsibility to manage these plants.

The LSA Act sets out the legal framework for:

- banning the sale of declared weeds
- controlling the movement of declared weeds
- destroying or controlling infestations of declared weeds
- notifying authorities when an infestation is detected.

More information can be found on Biosecurity SA's website at:

www.pir.sa.gov.au/biosecuritysa/nrm_biosecurity/weeds.

NOTE: If water affecting activities have been conducted on species not listed here, which do not follow removal methods in Table 1, or a WAA permit has not been granted, the board may choose to enforce the provisions of the LSA Act. This may include enforcing remediation works at your own cost, or a fine of up to \$50,000.

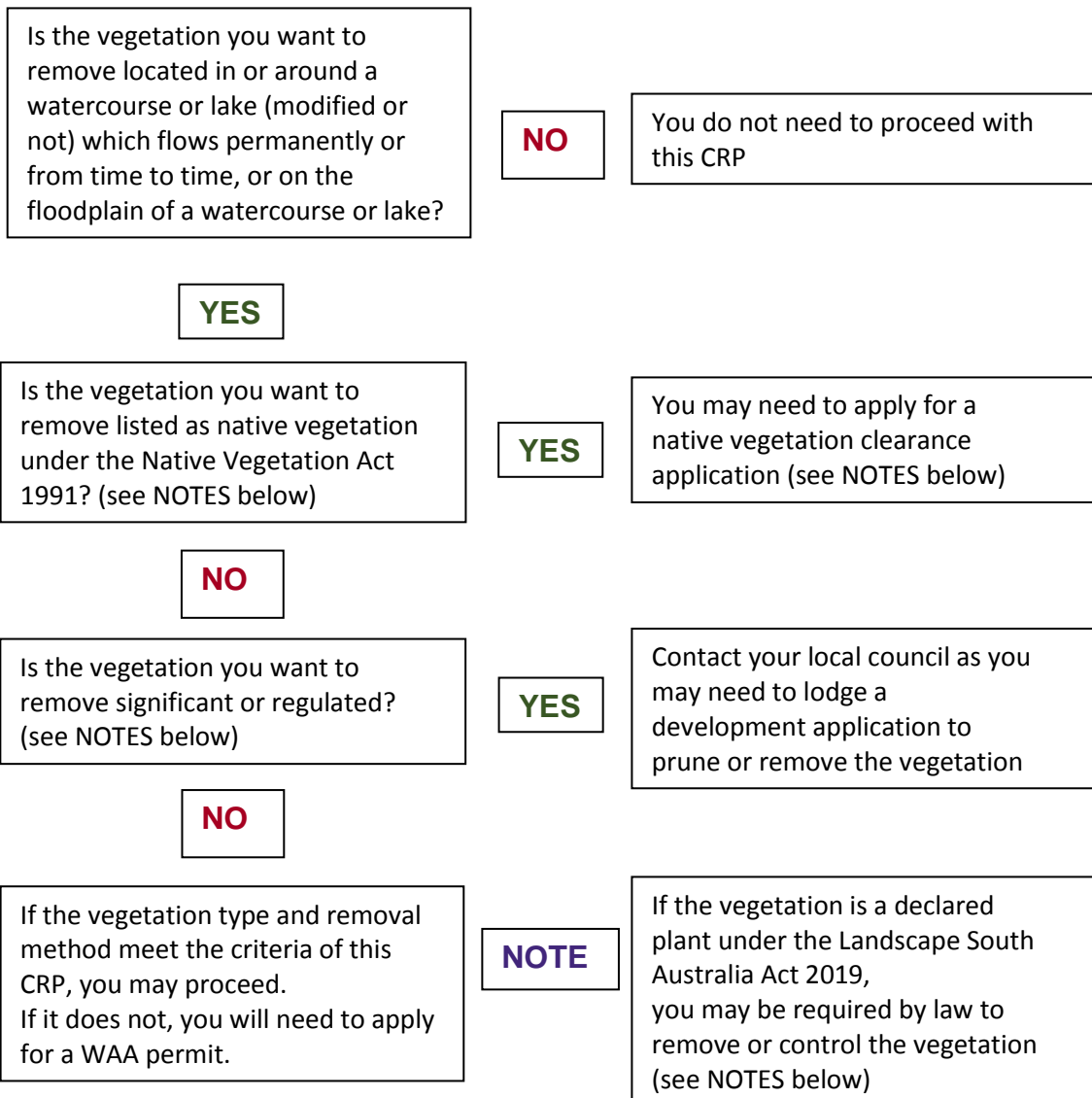


Government of South Australia

Northern and Yorke
Landscape Board





Flow chart






NOTES

- A **regulated tree** is any tree in metropolitan Adelaide or Adelaide Hills Council townships with a trunk circumference of 2 metres or more.
- A **significant tree** is:
 - a regulated tree in metropolitan Adelaide or Adelaide Hills Council townships with a trunk circumference of 3 metres or more
- A **declared plant** is a species that is a significant threat to the state's primary production industries, natural environments and public safety. A list of these species can be found at: www.pir.sa.gov.au/biosecuritysa/nrm_biosecurity/weeds. If the vegetation you want to remove is declared, you may need to destroy it, control it or notify a relevant authority of its existence.
- If the vegetation you want to remove is **native vegetation** under the *Native Vegetation Act 1991*, you may need to apply for a native vegetation clearance application. If unsure, please contact the Department for Environment and Water's Native Vegetation Branch on (+61 8) 8303 9777 or nvc@sa.gov.au.

Table 1: Vegetation species and approved removal methods for removal under this CRP

Black Locust, White Poplar or Lombardy Poplar	
<ul style="list-style-type: none"> ❖ Black Locust (<i>Robinia pseudoacacia</i> L.) ❖ White Poplar (<i>Populus alba</i> L.) ❖ Lombardy Poplar (<i>Populus nigra</i> L. and <i>Populus tremula</i> L.) 	 <p>White Poplar Wikicommons</p>
Size and position of vegetation	Approved removal method
Seedlings (up to 6 cm high) in moist soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Hand pulling Grubbing
Saplings (6cm to 1.5 m high, with a diameter less than 8 cm) in moist soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Grubbing (not suckers) Cut and paint / swab Chipping / frilling
Saplings (6 cm to 1.5 m high, with a diameter less than 8 cm in diameter) in dry soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Cut and paint / swab Chipping / frilling
Saplings in dry soil (any other removal method).	Must apply for a WAA
Mature tree (1.5 m or higher).	Must apply for a WAA
Notes: <ul style="list-style-type: none"> • The Black Locust is known to be toxic to humans – caution must be taken during removal of this species. • The chipping / frilling method can be used at any time of the growing season from October until April. • Follow-up will be required in the few months following chipping / frilling to ensure the plant has not re-sprouted. 	
Non-cultivated (wild) Olive	
<ul style="list-style-type: none"> ❖ Non-cultivated (wild) Olive (<i>Olea europaea</i> L. ssp. <i>europaea</i> and <i>Olea europaea</i> L. ssp. <i>cuspidate</i>) 	
Size and position of vegetation	Approved removal method
Seedlings (up to 6 cm high) in moist soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Hand pulling Grubbing
Saplings (6 cm to 1.5 m high, with a diameter less than 8 cm) in moist soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Grubbing Cut and paint / swab Drill and fill
Saplings (6 cm to 1.5 m high, with a diameter less than 8 cm) in dry soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Cut and paint / swab Chipping / frilling
Saplings in dry soil (any other removal method).	Contact your local natural resources centre
Mature tree (1.5 m or higher).	

Narrow-leaved Ash or Desert Ash	
<ul style="list-style-type: none"> ❖ Narrow-leaved Ash (<i>Fraxinus angustifolia</i> Vahl ssp. <i>oxycarpa</i>) ❖ Desert Ash (<i>Fraxinus angustifolia</i> Vahl ssp. <i>angustifolia</i>) 	
Size and position of vegetation	Approved removal method
Seedlings (up to 6 cm high) in moist or dry soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Hand pulling Grubbing
Saplings (6 cm to 1.5 m high, with a diameter less than 8 cm) in moist soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Grubbing Cut and paint / swab Chipping / frilling
Saplings (6cm to 1.5 m high, with a diameter less than 8 cm) in dry soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Cut and paint / swab Chipping / frilling
Saplings in dry soil (any other removal method).	Must apply for a WAA
Mature tree (1.5 m or higher).	Must apply for a WAA
Notes: <ul style="list-style-type: none"> • As ash trees propagate by seed, they do not have to be poisoned before they are cut down. However, ash trees have the ability to seal cuts within seconds, therefore stumps must immediately be sprayed or painted with a registered herbicide. As such, it is recommended that this method is undertaken by two people. 	
Peppercorn Tree	
<ul style="list-style-type: none"> ❖ Peppercorn Tree (<i>Schinus molle</i> L.) 	 <p>Jasleen Kaur Creative commons</p>
Size and position of vegetation	Approved removal method
Seedlings (up to 6 cm high) in moist soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Hand pulling Grubbing
Saplings (6 cm to 1.5 m high, with a diameter less than 8 cm) in moist soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Grubbing Cut and paint / swab Chipping / frilling
Saplings (6cm to 1.5 m high, with a diameter less than 8 cm) in dry soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Cut and paint / swab Chipping / frilling
Saplings in dry soil (any other removal method).	Must apply for a WAA
Mature tree (1.5 m or higher).	Must apply for a WAA
Notes: <ul style="list-style-type: none"> • The sap of this species can cause an allergic reaction 	

Willow species	
<ul style="list-style-type: none"> ❖ Weeping Willow (<i>Salix babylonica</i> L.) ❖ Golden Weeping Willow (<i>Salix</i> × <i>sepulcralis</i> Simonk. var. <i>chrysocoma</i> (Dode) Meikle and <i>Salix</i> × <i>sepulcralis</i> Simonk. var. <i>sepulcralis</i>) ❖ White Crack Willow / Basket Willow (<i>Salix</i> × <i>rubens</i>) ❖ Crack Willow (<i>Salix fragilis</i> L.) ❖ Chilean Willow / Evergreen Willow / Pencil Willow (<i>Salix chilensis</i> 'Fastigiata') 	 <p>Golden Weeping Willow Wiki commons</p>
Size and position of vegetation	Approved removal method
Seedlings (up to 6 cm high) in moist soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Hand pulling Grubbing
Saplings (6 cm to 1.5 m high, with a diameter less than 8 cm) in moist soil within a watercourse, on the bank of a watercourse and up to 5m distance from a watercourse.	Grubbing Cut and paint / swab Drill and fill
Saplings (6 cm to 1.5 m high, with a diameter less than 8 cm) in dry soil within a watercourse, on the bank of a watercourse and up to 5 m distance from a watercourse.	Cut and paint / swab Chipping / frilling
Saplings in dry soil (any other removal method).	Must apply for a WAA
Mature tree (1.5 m or higher).	Must apply for a WAA
Notes: Willows can quickly take root from broken branches, therefore it is imperative that care is taken to collect all broken branches and twigs that have fallen in the watercourse or on damp soil.	

The vegetation and removal methods listed in this CRP have been assessed as low risk, according to the WAA Risk Assessment Matrix, and are subject to review.

Removal method definitions

Hand pulling: Hand pulling is suitable where there are a small number of plants with tap roots that are not too deep. Ensure the majority of the tap root has been removed and minimise soil disturbance. Any disturbed soil must be tamped down. If the plant has the ability to vegetatively reshoot from fragments or has mature seeds attached, carefully pull, bag, remove and destroy the plants appropriately, taking care not to spill seeds along the way.

Grubbing and / or digging out: This method involves digging plants out using a tree popper, mattock, spade or hoe and is suitable for a small number of plants. It can be used for removing single stemmed plants with stems from 6 cm to 1.5 meters high (diameter must be 8 cm or less). A great deal of soil disturbance can result and any disturbed soil must be tamped down. Ensure roots and branches are removed and disposed of appropriately. Follow up is required to ensure no new regrowth.

Cut and paint / swab: The main stem(s) or trunk(s) are cut off at the base (as low as possible to the ground) using a chainsaw, axe, brush cutter etc. and the stump immediately painted or sprayed with a registered

herbicide. Apply the herbicide promptly (within 10-15 seconds) before the plant begins to seal the cut preventing penetration of the herbicide into the sap stream. Follow up is required to ensure no new regrowth.

Drill and fill: Use a drill to drill 45 degree angle holes into the plants' cambium layer (where sap flows just beneath the bark layer). Holes should be at least 4 cm deep (deeper for trees with thick bark). Fill the hole with a registered herbicide within 3 seconds before the plant seals the cut, thus barring the chemical penetrating the sap stream.

Repeat every 2.5–5 cm around the base of the plant until it has been circled. For this method to be effective, the trunk diameter should be no smaller than 5 cm.

Chipping /frilling: Similar to the drill and fill method, however a small hatchet, narrow-bladed axe or chisel with a mallet is used to frill or chip the outer layers of the trunk at 45 degree angles, exposing the cambium layer. These cuts must circle the entire trunk at approximately 2.5–5 cm intervals at about waist height. Immediately apply a registered herbicide to the exposed cambium. To be effective, the trunk diameter should be no smaller than 5 cm.

Useful resources

Pest plants (including declared plants) and fact sheets on weed management techniques

<https://www.landscape.sa.gov.au/ny/plants-and-animals/pest-plants-and-animals/pest-plants-weeds>

Information on watercourses including benefits of managing watercourses

https://www.landscape.sa.gov.au/ny/water/managing-water-resources/watercourses/Managing_watercourses

Natural resources centres

Gawler

4 Seventh Street, GAWLER SOUTH SA 5118

T: (08) 8841 3444

E: ny.landscapeboard@sa.gov.au

Clare

155 Main North Road, CLARE SA 5453

T: (08) 8841 3444

E: ny.landscapeboard@sa.gov.au