

Control Methods

Managing weeds near waterways can be problematic, as there are very few chemicals that are proven to be safe for use near water. It is important to first consider alternatives to chemical control. Isolated patches of weeds can be dug up by hand, taking care that all below ground parts are removed. Vegetative parts such as tubers (and roots for some species) need to be destroyed off-site by burning or soaking in herbicide before bagging and disposing of in the bin. If there are fruits or flowers present, they need to be treated in the same manner.

Other methods of manual removal include drowning by slashing under the water line or smothering by covering with black plastic or jute matt.

If chemical control is the only option, it is better to wipe or inject the chemical rather than spraying. If possible, use chemical when there is no water flow. Biactive glyphosate is marketed as “frog friendly” due to the absence of surfactants that are harmful to amphibians. To further minimise damage to frogs, avoid spraying in the wet season when frogs are spawning, during tadpole development or when juveniles are emerging from the water.

Glyphosate is a non-selective herbicide so it will kill any plant it comes into contact with, and great care needs to be taken to ensure only targeted plants are affected.

When removing weeds, it is important to have a management plan in place because it can leave the area susceptible to erosion and invasion from other weed species. This may mean removing the weed in stages and replacing with native vegetation.

Suitable control methods are site-specific, so it is a good idea to consult your nearest Department of Agriculture and Food office or Landcare Centre, who can also provide you with information about suitable local native species for planting. Please refer to the contacts list.

Important tips...

- ✓ Only buy plants from accredited nurseries (that means no cuttings from friends or markets);
- ✓ Buy only non-weed varieties of pond and aquarium plants;
- ✓ Do not dispose of pond plants by dumping;
- ✓ Clean down boats and fishing equipment before moving between waterways;
- ✓ When undertaking weed control have a management plan, as areas that are cleared are highly susceptible to invasion from other weeds;
- ✓ Remove small infestations by hand;
- ✓ Look at alternatives to chemical weed control, such as smothering.

Contacts

SJ Landcare Centre—info@landcaresj.com.au or 95260012

Waroona Landcare Centre—ctb@southwest.com.au or 97332628

Peel Harvey Catchment Council—admin@peel-harvey.org.au or 95835128

Dept Agriculture and Food, Waroona—97337777

Your Local Government—dlg.wa.gov.au

References and Further Information

This brochure produced by Landcare SJ with funding from the Federal Governments Caring For Our Country program.

Some of the species information has been taken from Florabase—florabase.dec.gov.au

Lantana information taken from www.nrm.qld.gov.au/pests/wons/lantana

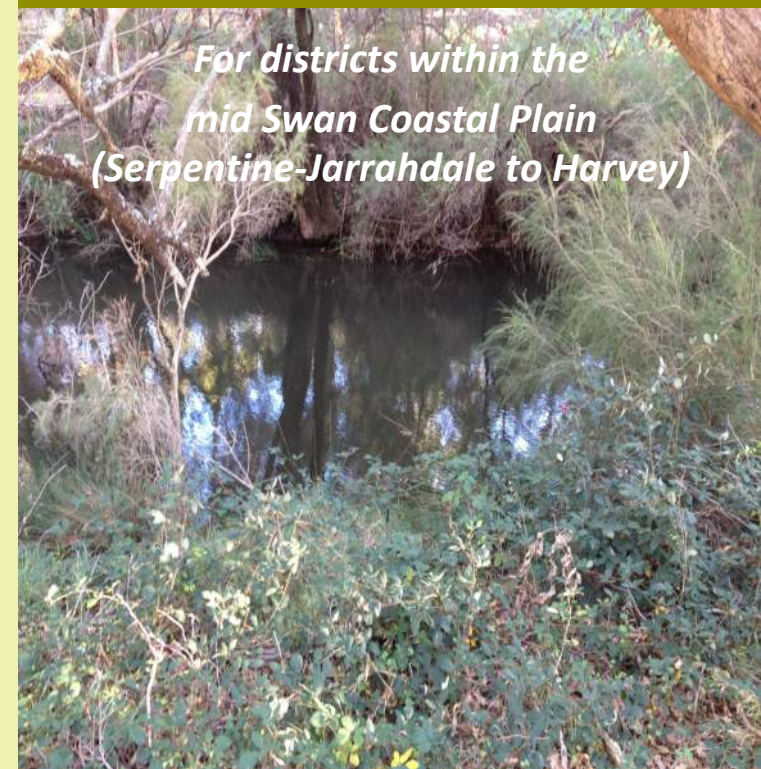
Dept of Agriculture and Food (2006) Weednote 1: Wetlands not Weedlands.

Harvey River Restoration Taskforce (2011) Blackberry postcard.



Waterway Invaders!

For districts within the mid Swan Coastal Plain (Serpentine-Jarrahdale to Harvey)



Weeds to watch out for near waterways and wetlands.

Your Responsibilities...

As landowner, the weeds on your property are your responsibility. Some of the listed plants may be 'declared' under State Legislation. If a plant is declared, all landholders are obliged to control the plant on their properties. Declared plants fall into categories which define the action required. The category varies over the State, ranging from prohibition or eradication, to control, or just preventing the spread into neighbouring areas. See the bottom of this page for a summary of declared plant categories.

The purpose of this brochure is to alert landholders to potential weeds in wetland environments. Due to the soils in these areas being relatively fertile and moist, weeds have the potential to displace native species, impede water flows, harbor pest animals and reduce water quality. The following list outlines several weeds of waterways, ranging from those widely established, to species that have the potential to become more widespread. The latter infestations, especially when small, present an ideal opportunity to eradicate them from an area before they establish.

You will find a description of each species, with a photo to assist with preliminary identification. If you have a weed of concern on your property, we recommend the following process of identification:

1. Take a good quality digital photo of the weed when it is fruiting and/or flowering—close-up and an overall shot.
2. Email the photos to your local Landcare Centre or the Department of Agriculture and Food WA (DAFWA). Please refer to the contacts list.
3. Or, take a sample of the leaves, fruit and/or flower and place in a plastic bag. Take this to your local Landcare Centre or DAFWA. Please refer to the contacts list.

Hydrocotyle ranunculoides

Floating pennywort is an aquatic herb that can quickly form dense mats that impede water flow and cause eutrophication when it breaks down (removal of oxygen from the water). There are several native species of *Hydrocotyle*, so identification is important. The floating leaves are circular, with a distinct radial split. Flowers are white in summer. Declared plant Cat. P1 and P3 for the whole State.



Photo: SERCUL

Lantana camara

Lantana is a Weed of National Significance (WONS), because of its invasiveness, potential to spread, and its economic and environmental impacts. Lantana is a scrambling, prickly shrub/climber that forms dense thickets and smothers native vegetation. Different varieties flower cream-yellow/pink-purple or orange-red. It spreads from seed and root suckers and is moved by birds and mammals, or when dumped as garden refuse. Declared plant Cat. P1 in the whole State.



Photo: SJ Shire

Rorippa nasturtium-aquaticum

Watercress is a perennial aquatic herb. It typically grows 0.3m high and 2.5m long, with small white flowers in loose clusters in late autumn and summer. It is spread via stem segments and seed dispersal. The fruit is slightly curved and approximately 1-2cm long. It is not a declared plant, and is considered an Environmental Weed.



Photo: SERCUL

Rubus fruticosus

Blackberry is a Weed of National Significance (WONS) that reproduces via seeds which are dispersed by animals and via watercourses. They also spread vegetatively when the stems take root where they touch the ground, forming dense thickets. In addition to displacing desirable species, these thickets can harbour feral animals and restrict access. Declared plant Cat. P1 in the whole State and P4 in the Shires of Serpentine Jarrahdale, Murray, Waroona and Harvey.



Photo: HRRT

Juncus acutus

Spiny rush is a perennial sedge that forms dense tussocks which can impede water flow and eliminate all other vegetation. It is a prolific seeder and the seeds spread via water courses. It is easily confused with the native rush *Juncus kraussii* which it can hybridise with. Spiny rush can be distinguished by its sharp spikes. Not declared, and considered an Environmental Weed.



Photo: photos of Botany

Zantedeschia aethiopica

Arum lily is a declared plant which typically invades wetlands. It can form dense stands which crowd out native vegetation. Arum lily has a perennial tuber/rhizome and spreads rapidly via seeds which are first eaten by birds; and through its vegetative root system. It is toxic to stock and can impede water flow. Declared plant Cat. P1 and P4 in the whole State.



Photo: SJ Landcare

And a list of other species to watch out for...

- ☞ Fanwort (*Cambomba caroliniana*)
- ☞ Horsetail (*Equisetum arvense*)
- ☞ Salvinia (*Salvinia molesta*)
- ☞ Dense waterweed (*Egeria densa*)
- ☞ Saggittaria (*Sagittaria platyphylla*)
- ☞ Lagarosiphon (*Lagarosiphon spp.*)
- ☞ Alligator weed (*Alternanthera philoxeroides*)
- ☞ Arrowhead (*Sagittaria montevidensis*)

[List taken from DAFWA Weednote "Wetlands not Weedlands". See Reference list]

Declared plant categories

P1: Prohibits movement of plants or their seeds within the State (highest priority). P2: Eradicate infestation, destroy and prevent propagation. P3: Control infestation in a way that prevents spread. P4: Prevent the spread from the property. A full list of declared plants and their categories can be found at <http://www.agric.wa.gov.au>.