



AQUATIC WEEDS IN LOGAN

Aquatic weeds degrade our waterways and limit human use through the deterioration of water quality and modification of ecosystem processes. This fact sheet has been produced to assist landholders to identify and control common aquatic weeds found in Logan City.

Declared Aquatic Weeds

Under the Land Protection (Pest and Stock Route Management) Act 2002, landholders are required to control the following declared aquatic weeds on their property.

Salvinia

(*Salvinia molsta*) is a free floating fern with slender stems and floating leaves. In warm conditions it grows rapidly and can double in size in 2-3 days. *Salvinia* chokes wetlands and waterways, killing fish and harbouring mosquito larvae. An effective control program would include herbicides containing surfactant chemicals to make it stick and biological control. The *Salvinia* Weevil

(*Cyrtobagous salviniae*) has demonstrated significant control of this weed along California Creek.



Salvinia DNRW

Water Hyacinth

(*Eichhornia crassipes*) is a free floating aquatic plant which under favourable conditions can double in size every week. The fleshy leaves are a bright, shiny pale green and are attached to swollen bladder-like stems. In summer they produce an attractive mauve flower. Water hyacinth causes problems in wetlands because it obstructs water movement and interferes with fish, waterfowl and other native plants.



Water Hyacinth

Water Lettuce

(*Pistia stratiotes*) is a free floating, perennial plant. It spreads very rapidly under water. Its leaves are distinctive pale yellow green and resemble fleshy lettuce leaves. It causes problems in wetlands because it can deoxygenate the water, which in turn kills fish and other waterborne plants, its decomposition putrefies the water-body and transpiration by the plant leads to rapid water loss.



Water Lettuce DNRW

Hygrophila

(*Hygrophila costata*) is an erect, emergent herb up to 1m tall. It is an aggressive grower forming mats of dense floating growth around the margins of freshwater lakes and is starting to become a threat to the native water plants. Leaves grow opposite to one another with a coarse texture and prominent veins. White flowers with a papery texture are produced in the axils of the leaves.



Hygrophila BW

Environmental Weeds

These weeds may have harmful impacts upon the health of streams, creeks and dams. It is therefore advisable that they are controlled.

Red Water Fern (*Azolla pinnata*)

This fern is an indicator of cyanobacterium (also known as blue green algae), due to the sharing of nutrients fixed by this type of algae. Rarely problematic but excessive growth needs to be mechanically removed.



Red Water Fern

Hornwort (*Ceratophyllum demersum*)

A native plant that floats below the water surface in thick bunches.



Hornwort GP

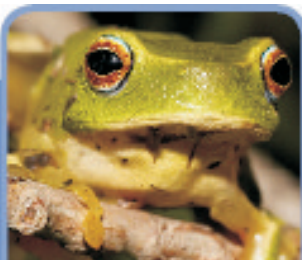
Duckweed (*Lemna sp.*)

Although a native species, excessive growth of Duckweed forms a dense green cover, limiting light infiltration.



Duckweed BW

For Further Information: www.logan.qld.gov.au, 3412 3412 or council@logan.qld.gov.au





Why are Aquatic Weeds a Problem?

- Weeds out-compete native aquatic vegetation by reducing space available for native plants and deplete oxygen, nutrients and light. This impacts on food sources for native wildlife and their habitat requirements.
- Aquatic weed decomposition releases nutrients, forming perfect conditions for algal blooms.
- Excessive weed growth can limit water flow velocity, aiding settling of sediment thereby creating shallower streams. The implications of reduced waterway capacity are more frequent flood events. Ponding of water also contributes to the spread of mosquito infestations.
- Aquatic weeds limit recreational use and fishery viability, particularly creating unfavourable conditions for many native fish species.
- Aquatic weeds add significantly to waterway associated infrastructure and maintenance costs.

Factors that contribute to aquatic weed growth

Aquatic weeds prosper in waterways characterised by high nutrient loadings, low water velocity and warm water temperatures, all hastening photosynthesis. Removal of riparian vegetation creates these conditions through reducing stormwater nutrient filtration and increasing sun exposure to a water-body.

What you can do to stop water weeds spreading

- **Familiarisation of Weeds** – increasing your knowledge of the weeds found in local waterways.
- **Equipment Hygiene** – any equipment that is used in the vicinity of aquatic plants should be thoroughly checked and cleaned before moving to another area. This includes boats, boat trailers, fishing equipment and earth moving equipment.

- **Aquarium Plants** – if placing aquatic plants in your aquarium or fish pond make sure they are native otherwise use fake plastic ones.
- **Disposal** – when disposing of any unwanted aquarium plants dry them and then bury or throw them out with your general rubbish.
- **Immediate Advice** – if you find aquatic weeds on your property, seek expert advice on control options immediately.

Weed Control

The best form of weed control is prevention. Weed control programs require on-going maintenance to remain effective. A decision needs to be made as to whether the weed infestation can be realistically eradicated. Weed control may be a more achievable objective in most circumstances.

Aquatic weeds can be controlled using:

- **Biological control:** use of natural ecological enemies.
- **Chemical control:** application of herbicides.
- **Mechanical control:** physical removal of plant material.
- **Environmental control:** alteration of the water-body to limit plant growth, for example draining a water body.
- **Integrated control:** combines two or more of the above techniques.

Before using any of these measures, please contact Logan City Council's Pest Management Unit on (07) 3412 5450, or the following organisations:

Queensland Government Call Centre
Department of Natural Resources and Water
Land Protection Branch
Phone: (07) 3227 7111

The Weed Society of Queensland
GPO Box 1607
Brisbane QLD 4001

For Further Information:  www.logan.qld.gov.au,  3412 3412 or  council@logan.qld.gov.au

Photos are courtesy of the Department of Natural Resources and Water (DNRW), Graham Prichard (GP) and Brian Worboys (BW).

