

Vegetation Management

The management of vegetation along streams includes the removal and selective pruning or thinning of:

- Exotic plants and or woody weeds; and
- Native vegetation.

The management of exotic plants or woody weeds such as willows, ash trees and blackberries are generally desirable. Isolated plants should be removed before they mature and spread. Poisoning alone may suffice where timber debris impacts are considered minor.

Management of native vegetation generally refers to the removal or selective thinning of native vegetation to restore the hydraulic capacity of a stream. This may be appropriate where flows are being confined and effectively increasing the risk of an avulsion or are causing significant economic loss from artificially increased flooding.

Applications for these works may also be referred to the CMA from Councils as part of the Native Vegetation Controls.

Potential Waterway Impacts

Potential impacts include:

- The complete removal of woody weeds including willows can destabilise banks and lead to local erosion and subsequent sedimentation downstream.
- The removal of overhanging vegetation will reduce shade cover and raise water temperature which will impact on aquatic life.
- Excessive clearing or removal of vegetation will enhance the hydraulic efficiency of the waterway which would increase flows downstream, and the potential for increased bank erosion and bed deepening.

Assessment Criteria

Approval to modify existing vegetation should only be permitted where there will be a clear net gain to the overall stream health.

Management of Exotic Vegetation

A site inspection is essential to determine whether the trees have a useful role in stabilising the stream bank or bed. If so, the works will need to be staged to not leave excessive lengths of unprotected banks. It is possible that willows could be retained and trimmed rather than completely removed, depending on the willow species.

Exotic plants are to be treated using best management practices. A revegetation plan must be provided to demonstrate how the stream banks are to be re-stabilised with suitable indigenous plants.

Current best management practice for willow removal includes the following methods:

Method 1

- Tree to be cut close to ground level.
- Trunk to be immediately coated with approved chemicals (glyphosate) to kill the tree.
- Tree trunk and all branches to be removed from waterway and burnt, or mulched and recycled.
- Root mass to remain intact in the stream or bank.

Method 2

- Stem injection with approved chemicals to kill the tree. On multi-stemmed trees, all stems to be injected.
- Where necessary, the dead tree trunk and branches are to be removed from the waterway and burnt. The root mass should remain.

Method 3

- After poisoning, the tree may be left to fall and rot away.

Method 4

- In areas where there are small numbers of willows less than 1 metre tall, the plants may be pulled out by hand, and disposed away from the site.

Management of Native Vegetation

It is important to retain the natural characteristics of the stream from both an hydraulic and environmental perspective. A cautious approach is essential to avoid destabilising the stream or altering flood behaviour. Specialist advice should be sought for waterways affected by water resource development and operation, such as large reservoirs in the upper catchment.

The general approach to such applications is to identify the real impacts and understand the causes of the claimed excessive in-stream vegetation. An assessment of the likely impacts of selective removal of vegetation then needs to be made for both minor and flood flows.

Selective removal of vegetation may be warranted where the density of vegetation is causing flows to deviate and cause excessive bank erosion or alter flood levels. In such cases, selectively opening up flow paths through the vegetation may be acceptable.

The applicant must specify the removal method and arrangements for the disposal and location of the removed vegetation, which may be to adjoining areas that need regenerating, or off-site.