Works on Waterway Guidelines Large Wood Management





Introduction

Fallen native trees within streams are referred to as large wood and is defined as downed wood in waterway channels greater than 10–20 cm diameter, and 1–2 metres long. They are an important natural feature and provide micro-habitats in the stream, as well as contribute significantly to stream roughness thereby maintaining low stream velocities. Where recently fallen trees are causing excessive bank erosion and are threatening the stability of private and public assets then management may be warranted.

The management of recently fallen trees from streams may be undertaken to:

- Mitigate bank erosion concerns directly linked to the trees.
- Restore the hydraulic capacity available prior to the fall.

Large wood management may also include the re-introduction of large wood to restore stream values.

The management of large wood in streams may require the consultation with other responsible authorities including:

- Councils
- DELWP
- Parks Victoria
- Commonwealth Department of Environment
- Aboriginal Victoria
- Transport Safety Victoria

Potential Waterway Impacts

Potential impacts include:

- Removal of large wood or de-snagging will remove important habitat for fish and other aquatic fauna.
- Removal of large wood will result in the loss of roosting and preening sites for birds, as well as loss of resting and feeding sites for water rats, lizards, frogs and tortoises.
- Removal and or placement can cause increased stream velocities and subsequent stream erosion.
 - Loss of locally variable flow velocities and subsequent loss of key habitats.

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Assessment Criteria

Acceptable works include:

- The removal of the green tree top and smaller branches.
- The pruning or removal of tree roots or butt. However, if the root ball is removed from the trunk it should remain at a more acceptable location within the stream since root balls are particularly important in providing microhabitat.
- The lopping of branches which present a risk of rafting at flows greater than 40% of channel depth.
- The realignment of tree trunks to aim downstream at an angle of between 20° and 40° from the bank, with the roots at the bank.
- Anchoring of large wood via partial burial of logs (in low flow areas), pining logs in place with hard wood piles (in high flow areas) or fixing logs together to form a structure.
- The partial dismantling of log jams which obstruct more than 50% of the waterway area at bank full level.

The complete removal of large wood is undesirable and is to be strongly discouraged. The large wood guidleines by DELWP can be found at <u>https://www.water.vic.gov.au/ data/assets/pdf file/0026/421388/Waterway-Veg-Fact-Sheet-Large-wood-FINAL-May19.pdf</u>.

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