

Dealing with debris or log jams following flooding

Fact Sheet

1 April 2011

1. Introduction

In early 2011 floods in Tasmania moved substantial amounts of woody debris in many of the State's waterways. In some instances this has resulted in large log jams, often in places that were relatively clear prior to the flood.

2. Assessing your debris or log jam

Your first step should be to assess the debris in your stream. Scoping out the cost and benefit of any potential works is important in deciding the practicality and feasibility of any action.

The management of debris in streams can be expensive. In some areas unstable banks and slopes can make the removal of debris dangerous. It is also possible that the removal of debris, either complete or partial, can have a significant impact on wildlife habitat and stream stability.

Points to consider include:

- What would happen if the debris or log jam was left in place?
- Does it provide benefits for wildlife or stream health?
- Is it likely to prevent further erosion?
- Is there more debris up stream that could make the problem bigger in later years?
- Could it clear itself in the next flood?
- Is the debris actually causing damage such as erosion or stream diversion?
- Does it threaten infrastructure?
- What would it cost to remove the debris?
- How would it be done?
- What impact would the removal have on the stream and surrounding banks?
- What impact would the removal have downstream?
- Are there any legal implications (refer part 3 of this Fact Sheet)?

A stream channel must be blocked substantially before the movement of flood waters is affected. Generally, such blockages are obvious. Large amounts of woody debris that lie perpendicular to the flow and cover more than 10 per cent of the channel's cross-section

may increase the likelihood of the stream flowing over its banks during the floods. Or, it may raise the level of the flow and contribute to erosion, without necessarily going over the bank.

Smaller amounts of debris may have little effect on the water levels.

Every stream is different, but it is worth carefully considering your options. If the amount of debris in your stream has changed considerably after the flood, does it need removal? Often it can be left in place. Removal or, more commonly, realignment of the debris may only be necessary if it is blocking a substantial part of the channel.

It is recommended that any proposed works involving the large scale removal of obstacles be assessed by a river engineer or geomorphologist. This should ensure that works to remove or manage an immediate problem does not create other problems downstream or elsewhere.

3. Before removing or realigning debris or log jam

There are a number of questions to be answered if you are considering the removal of debris from your creek.

Who owns the waterway?

You first need to determine the ownership of the segment of stream where the debris or log jam is located, before taking any action. Simply because the waterway runs through your property, this does not necessarily mean that you are the owner of this segment. You may share ownership with a neighbour, or the waterway may be a Crown reserve.

To check the ownership of the relevant part of the stream, you can:

- Check your property title if you have a copy, to see if the stream is included in your title. You do need to be careful with this. If the waterway forms part of the boundary of your property you could potentially only have ownership to the centre of the waterway. You may also share ownership with a neighbour.
- Use the LIST map service on the internet (www.thelist.tas.gov.au) to search for your property. Use your roadside numbering address to search and identify if any Crown reserves exist on your waterway.

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- Telephone the Crown Land Services Message Service (6233 6413) or email Crownlandservices.Enquiries@dpiwwe.tas.gov.au to determine if a Crown reserve exists on your waterway. You can leave a message on this number or via email. The call or query will be returned within one business day.

What do I do if it is a Crown reserve waterway?

If the segment of stream is a Crown reserve (including either the stream bank or the channel alone) and you believe that the blockage has the potential to adversely impact on your property, you should contact the Crown Land Services Message Service or email (noted above) and discuss the matter with a staff member.

Crown Land Services staff will arrange an assessment to determine any action required. If they consider that removal of debris or other works is necessary, Crown Land Services staff will organise and pay for contractors to undertake the work required.

Please note:

Under no circumstances should you do any work on a segment of waterway that is a Crown reserve yourself, without first obtaining permission from the Department's Crown Land Services Branch.

If you wish to do any work yourself on a Crown reserve you need to complete and lodge the form "Application to do work or a development on Crown land".

The form is available on the DPIWWE website – look under Property, Titles and Maps/Crown Land/CLS Forms/CLS Works Application'

(<http://www.dpiw.tas.gov.au/inter.nsf/WebPages/MHOK-895457?open>). There is no fee required for lodgement of the application. The turnaround time for a response, depending on the level of work required, is approximately five working days.

What do I do if it is a private waterway?

If you have determined that you have ownership of the affected segment of stream or river and that works are required to remove or realign the debris or log jam, there are a number of things that you need to consider before planning and undertaking your works.

Please note:

You will be responsible for any costs incurred for the works.

You could also be held liable for any damage to downstream infrastructure if this occurs as a result of your works.

Before planning and undertaking your works you also need to consider:

- Do you need a works permit from your local Council? Works in or near streams and rivers may require a works permit from your Council. Check with your Council before you start works.
- Under the *Forest Practices Act 1985* the removal of native timber from a stream or river may require a forest practices plan. Check with the Forest Practices Authority, 30 Patrick St Hobart (telephone 6233 7966 or email info@fpa.tas.gov.au) for advice.
- If there are threatened species such as giant freshwater lobsters or burrowing crayfish in the stream or river, a permit may be required from the Inland Fisheries Service (IFS), 17 Back River Rd, New Norfolk, (telephone 6261 8050 or email infish@ifs.tas.gov.au). It is recommended you contact the IFS before removal of a log jam is attempted.
- If you think that the log jam or debris potentially contains hazardous waste, including materials such as sewage sludge, or contaminated soils (eg oil or petroleum contaminated soil) then approval for its handling (including disposal) must be obtained from the EPA Division (telephone Jaimie Clarke on 6216 4248, or email jaimie.clarke@dpiwwe.tas.gov.au for advice).

4. Good Practices

To minimise the risk of causing environmental harm, works to reposition or remove debris or log jams should adopt the practices outlined in the DPIWWE *Environmental Best Practice Guidelines 2. Construction Practices in Waterways and Wetlands*. This document can be found on the DPIWWE website – look under Water/Tasmania's Water Resources/Tasmania's wetlands/Wetlands and Waterways Works Manual (<http://www.dpiw.tas.gov.au/inter.nsf/Attachments/CDAT-5EJ39J?open>).

Great care should be taken using heavy machinery along or within a stream or river channel. There are significant health and safety issues to be considered. They include stability of the banks, moving heavy and/or unstable timber, the stability of the stream bed, as well as the potential to release trapped water downstream.

Operators of machinery should be experienced in working within river environments.

Further references

'Wetlands and Waterways Works Manual'

Source: <http://www.dpiw.tas.gov.au/inter.nsf/WebPages/CDAT-5EJ7HC?open>

'Managing Wood in Streams' River and Riparian Land Management Technical Guidelines Update No. 3 June 2003'

Source: <http://lwa.gov.au/products/pr030531>

'NSW Primary Industries – Fishing and Aquaculture – Removal of large woody debris'

Source: <http://www.dpi.nsw.gov.au/fisheries/habitat/threats/woody-debris>



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