



## Managing flood-affected landscapes

The high flow and flood events experienced in 2022 and 2023 have had a significant impact upon land alongside the Murray River. In the Murraylands and Riverland region, many riverside landholders have experienced the aftermath of floodwaters on areas of native vegetation. While it might be tempting to start cleaning up, the effects of the flood are likely to benefit native vegetation rather than hinder it.

This webpage has been developed to provide guidance on how to manage flood affected lands to help protect, restore and encourage biodiversity in the months and years to come.

### Understanding the first steps

An essential first step in flood recovery is to allow the flood water to recede and to give the landscape time to heal itself.

Before the installation of locks and weirs, the river naturally experienced times of both high and low water levels that characterise ecosystems including floodplains and wetlands. Floods are a naturally occurring process and landscapes have adapted to recover from and even flourish from an influx of water.



Sediment deposited over a walking trail as a result of the 2022-2023 floods.

Silt - the sediment carried and deposited by running water - is full of nutrients and seeds and by allowing this to settle on the landscape, you will benefit from this influx. While vegetation might not germinate for some time, leave silt undisturbed as it provides the perfect seed beds for new plants.

### **Dealing with dead vegetation**

While much of the flood affected vegetation on your property may look dead, many shrubs and trees may in fact be in a state of shock. Vegetation that has spent time under water may have lost its leaves and appear to be dead, but it is possible that the roots are still alive. It may take a while for the internal processes of shocked plants to start functioning again, so be patient and keep an eye out for new leaf growth which is the first visual sign of recovery.



"Dead" branches provide a valuable source of habitat for colonial nesting birds.

In the meantime, dead vegetation provides a valuable source of habitat and food for native animals. Dead shrubs provide perching habitat for birds and shelter for native animals including reptiles, frogs and insects. Many native insects have a larval stage that relies on plant roots, so these natural functions will actually help to breakdown dead vegetation.

A good rule of thumb is to leave dead branches and shrubs intact for 12 months after flood waters recede. Once surrounding vegetation starts to recover, you can identify and trim dead branches. Dead native plants can also be left alone as they will provide stability for the soil.

### **Managing weeds**

For help identifying weeds or for advice on control options, contact your local district officer.

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It may be beneficial to take photos of suspected weeds to show a district officer, but many weed species are declared and prohibited from movement on public roads, so please do not remove them from the ground.

More information about post-flood weed control can be found [here](http://landscape.sa.gov.au/mr/projects/pest-plants/weed-warriors-of-our-waterways/post-flood-weed-support) (<http://landscape.sa.gov.au/mr/projects/pest-plants/weed-warriors-of-our-waterways/post-flood-weed-support>).

### **Vegetation recovery: Do's and don't's**



Eucalypt seedlings emerge in a flood-affected landscape in Morgan Conservation Park

Do:

- Wait to see if vegetation recovers naturally. This may take a year, and sometimes longer
- Be patient – the landscape will look stark for quite a while but this is normal and it needs time to heal
- Contact your local district officer for help to identify weeds and find a suitable control option
- Undertake infill planting. While not essential, this can be a useful tool for recovery. [Contact State Flora \(https://www.stateflora.sa.gov.au/\)](https://www.stateflora.sa.gov.au/) for a list of suggested floodplain species and plant these in between dead branches and recovering plants.
- Consider supplementary watering to help young seedlings survive hot and/or dry phases.

Don't:

- Don't trim or remove naked or dead branches – they provide important perching habitat for birds.
- Undertake earthworks. Allow nutrient-rich silt and seeds to stay and aid recovery. Machinery also causes compaction which can slow root growth.

### Using photo points to monitor recovery

The use of photo points is a great way to track slow recovery and show progress. If you have an interest in a particular area, you can set up a permanent photo point and track the recovery of your site. Use 2 star droppers placed about 10 metres apart. Take the photo from one stake and make sure the second one is in the middle of the photo. Angle the camera downwards so there is only a narrow strip of the sky at the top of the photo – most of the shot should show the ground.



Taking photos of the same location over time will help to track the restoration of native vegetation over time.

Leave the star droppers in the ground and take photos every few months. Be sure to set up the photo the same way each time, using the star droppers as your guide. Ensure that the images are kept in sequence, or dated so you can track the change in vegetation over time.

### **More information**

For help with weed identification and control options, contact your local district officer:

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