

Factsheet

Preparing your farm for the flood and cyclone season

The official cyclone season is from **1 November to 30 April**.

A reminder to review your emergency preparedness plans and deploy measures to prepare your property to reduce soil, waste and nutrient loss.

Immediate measures

- Understand the flood risk in your area.
- Check with the Shire about local flood plans and records.
- Ask your neighbours about the impacts of previous floods on your property.
- Clean up around your property and remove rubbish. Rubbish moved by floodwaters can block floodways and drainage lines, contributing further flood damage to properties and lead to contamination of water sources and the local environment.

Managing your property appropriately protects the Gascoyne River floodplain and the nearby sensitive marine ecosystems, including the Shark Bay World Heritage Area and the Ningaloo Coast. Waste, soil and nutrients that leave your property during flooding may impact these areas.

You can dispose of drumMUSTER eligible containers, plastic sheets, recyclables and general household waste at the Browns Range Waste Management Facility. The Shire's website (carnarvon.wa.gov.au) lists what items the facility will accept for disposal and the fees that may apply.

Any pipe or miscellaneous items around the paddocks, house and sheds should be removed or stored securely to ensure they don't float away.



Image 1 – Carnarvon flood soil erosion 2010

Long term planning

Long term planning should consider the likelihood of flooding every season. Historically larger floods have occurred roughly every 10 years, but a large flood one year, does not negate the likelihood of another flood occurring the following year.

Infrastructure and natural structures impact on flood flows. It is important to check if:

- infrastructure is set up to cope with floods
- structures will divert flows causing scouring, erosion and soil loss
- driveways/roads and fence lines are level so they do not impede flows.

Crop rotations: will your planned rotations result in either a cover crop or other form of plant cover on your land to avoid a bare fallow during cyclone season. Establish perennial crops/plants in flood zones to protect soils. Consider what your post flood recovery plan will be so that you can minimise impacts on production.



Image 2 – Plant cover

Best practice soil conservation methods

It is vital to protect your soil. The adoption of good soil conservation practices by all plantation owners will have a significant positive impact on erosion in future floods and is likely to improve productivity. The erosion potential is very high for land used for vegetable cropping.

Plant roots and grass sward provide the best protection against erosion. Plant roots bind and anchor the soil and the plant parts above ground reduce the velocity of floodwater. Rigid posts and tree trunks can exacerbate eddy flow causing scouring at the base. Therefore, selecting the correct type of plant cover is important for reducing soil erosion.

What can you do to protect your soil?

- Use permanent crops (tree, vine and banana fruits) in flood risk zones at appropriate plant density to allow the growth of cover, inter row crops and the free flow of floodwater. In high-risk flood areas, banana crops have been used but are no longer considered suitable as they block water free flow.
- Soil stabilisation and cultivation practices that do not expose large areas to potential erosion such as:
 - over summer, fallow with green manure crops and only prepare land as required.
 - use sprinklers to pre-water land before cultivation. This reduces soil erosion and can be used in conjunction with rain events.
 - weeds can be very effective ground cover, but methods to stop seed spread need to be planned. A useful resource for integrated weed management for the vegetable industry is available from [Hort Innovation](#).
- Increasing organic content of soils by these practices will have beneficial effects on soil structure and fertility.

- Contouring (banks and channels to control floodwater flow) on one property in isolation may have detrimental effects elsewhere. The Shire of Carnarvon Local Planning [Scheme No. 13](#) should be reviewed to determine the permissibility of proposed works.

The '[Farm Management Practice for the Prevention of Soil Erosion in the Carnarvon Horticultural Area](#)' report (known also as the Parr Report) has further detail about soil erosion and how to mitigate the risks.



Images Carnarvon soil erosion from 2010 flood

Contact

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