

Risk management for stock owners in times of fire and flood

John Bowler

Former Senior Agricultural Protection Officer

Introduction

Natural disasters such as floods and bushfires can have a major impact on the management and financial viability of rural properties, as well as major implications for animal welfare. Landholders have a responsibility to ensure that management and property development plans recognise the risks and incorporate the strategies that are necessary to ensure the safety of all persons, livestock and any residential dwellings, and the security of the plant and equipment, in the event of such a disaster.

The following issues have been identified and included in a checklist for landholders to consider when they are developing plans and strategies for managing flood and fire events, regardless of the size of the property. The list, although comprehensive, may not include all items specific to individual situations, but will assist in developing an awareness of the range of risks and issues that need to be addressed to ensure the security of landholders and their enterprises.

1. Risk assessment

The likelihood and consequence of a natural disaster event

- **Location**
Check the historical records of your area for the incidence of flooding and bushfires. Does your property adjoin a State forest or a national park? If so, what are the implications for fire management? Are there any natural flood channels or swampland in the area?
- **Topography**
Check the recorded flood heights and the probability of such heights being reached – this

information is available from local councils and the State Emergency Service. Are there any natural refuge areas on your farm or close by?

- **Enterprises**
Does the nature of your enterprise limit the strategies that can be implemented during a fire or flood disaster and therefore impact on the risk? For example, dairying on a flood plain has greater inherent risks than would a cropping or horticulture enterprise; calving or lambing during high-risk periods increases the likelihood of major losses, whereas dry stock can be quickly evacuated with little risk.
- **Flock/herd health status and quality assurance programs**
What impact will any quality assurance (QA) program have on your decisions? Will you need to make special arrangements to maintain your stock's status and market access? Are neighbouring stock a risk to your livestock, or at risk from your livestock?
- **Local warning information**
Do you have access to reliable official warnings? Are you aware of the upstream and local river height levels, with the resultant flood levels in the different areas of your property?

2. Risk reduction strategies

Actions that should be taken by an individual landholder to reduce the risk

For storm damage

Although storm damage rarely causes prolonged problems with livestock, damage to infrastructure can impact on the management of stock, particularly dairy cattle and intensively housed animals.

Options:

- Have access to emergency power and suitable wiring connections for key machinery such as milking and water supply equipment.



- Have arrangements in place for emergency fodder supplies.
- Install power failure and temperature alarm systems in fully enclosed intensive sheds.
- Install back-up storage facilities for effluent disposal systems to avoid contamination of waterways during power failures.

For fire situations

Options:

- Install firebreaks by ploughing, spraying with herbicides, or grading, ensuring that they are located such that the risk of erosion is minimal. Firebreaks can also be used to provide access for surveillance or firefighting activities.
- Manage stock so that key areas around buildings and stockyards are grazed in order to reduce fuel levels.
- Implement appropriate pasture rotations and grazing management so that short, green feed (e.g. lucerne) is provided in key areas at critical times.
- Prepare safe refuge areas by cultivation, grading, slashing or using herbicides, manage stock so that small paddocks are eaten out, and plant non-flammable tree lines which incorporate rapid, easy access to laneways or roads from grazing areas.
- Have adequate yards and loading facilities.
- Consider all-steel fireproof fencing in key areas such as boundaries, laneways etc.

For flood situations

Options:

- Prepare farm development plans, particularly with respect to paddock layout and the incorporation of access laneways to higher refuge areas, either on your property or in adjoining Rural Lands Protection Board (RLPB) or crown land reserves. Use topographic maps to prepare these plans, and take into consideration known flood levels.
- Where possible, install exit gates in fences at key locations to avoid stock being isolated.
- Prepare built-up feed pads to safe heights. You would need to consider events that have a probability of occurring once in 20 years, once in 50 years, and once in 100 years, in order to determine the risk and the cost benefit.
- Maintain feed reserves in accessible storage above flood level – remember, wet conditions may make farm roads impassable.
- Consider road access in flood times for ease of stock evacuation. If road access is not possible during flood, are you prepared to walk or swim your stock out to safety?

- Work with neighbours to develop group strategies, and to provide assistance during floods if required. Does your neighbour have a refuge hill which they are prepared to permit your stock to use as a safe grazing area? (Consider the health and QA impacts of such a strategy.) Should additional or shared fodder storage be considered at that location?

For a resultant drought situation

Fire and flood events ultimately result in drought situations of varying duration, depending on the time of year, the extent of the damage to pastures, the follow-up climatic conditions, and the grazing pressures. The options to consider are the traditional drought options:

- **Feed stock.** Consider:
 - the number of stock that will need to be fed, and the likely duration of the drought;
 - the cost and availability of various feeds and transport;
 - the impact on production and reproduction if it is likely that the breeding herd will need to be fed for a prolonged period;
 - the potential to import weeds and/or residues, and the impact of this on stock/property management.
- **Agist stock.** Consider:
 - availability and location of agistment properties;
 - the QA and health implications;
 - stock transport costs;
 - supervision and security of stock.
- **Sell stock.** Consider:
 - current stock prices;
 - projected stock replacement costs;
 - availability of suitable stock in the future.

Other considerations include the safe carrying capacity of your property in normal years, and the impact of native and feral animals on total grazing pressure. Damage or destruction of fences and stockyards is also likely in flood and fire events. This can limit your option in controlling and managing livestock and feral animals. However, in the short term the major single issue will be the nutritional requirements of the particular type and class of livestock.

Since the implementation of the National Drought Policy in 1992, drought has not been classified as a 'natural disaster', and therefore government assistance in the form of 'disaster relief' is no longer provided in drought circumstances. The rationale behind this decision is that drought is an ever-present risk in the unreliable Australian environment, and existing government assistance

programs were not encouraging landholders to develop 'drought preparedness' strategies. Landholders are now expected to develop their own risk management strategies which recognise the frequency of dry times and drought, and which protect their natural resources and livestock.

3. Assistance

Effective management of a natural disaster requires the landholder to work with local State Emergency Services, Rural Fire Services, neighbours and the community to formulate plans for an early warning system. These plans should identify the location and accessibility of safe refuge areas and procedures for the removal of stock from high-risk areas. RLPBs, industry associations and local stock and station agents also play a vital role in making sure that the local response ensures the safety of landholders and livestock.

During a natural disaster event, assistance can be obtained from the relevant emergency response agencies such as the State Emergency Services or the Rural Fire Service. NSW Department of Primary Industries has a statutory obligation to ensure the safety and welfare of all classes of animals – livestock, native and feral animals, companion animals – in the event of a natural disaster.

In a major event, local coordination centres are established to assist in the response and recovery activities. Contact telephone numbers are advertised locally, and NSW DPI maintains a 'Freecall' service on 1800 814 647 (Drought Hotline). These local centres maintain close working relationships with the various emergency combat agencies, and can usually be contacted through the local NSW DPI office or the local emergency centre. The NSW Government also establishes local recovery centres, which function as 'one-stop shops', to facilitate contact with relevant support agencies for the full range of financial and personal support programs.

After a flood or fire event, government assistance is available under the Natural Disaster Relief Arrangements (NDRA). This joint State–Federal assistance package provides a range of assistance measures for landholders, including emergency funding for replacement of household items, subsidies for the transport of fodder and livestock deemed necessary as a result of the disaster, and low-interest loans. Other assistance is available for local councils and other organisations. Full details and contacts for these programs are available from the NSW Treasury and are usually published during or immediately after a disaster event.

Key points

- Human lives must not be put at risk by any response activities.
- Assess the risk to you and your property.
- Implement risk reduction strategies.
- Develop and implement strategies for responding to the various situations specific to your property, with particular attention to:
 - reducing the risk to your enterprise;
 - safely removing stock in times of emergency;
 - becoming familiar with the location of, and access to, your stock refuges.
- If in the long term the disaster results in a 'drought' situation, decide which strategy (feed, sell, agist) is the most appropriate and implement it immediately.
- Assess your need for assistance in recovering to normal operations.
- Prepare for the next flood, fire or disaster event.

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