

Emergency Management

As a Business Group within Primary Industries and Resources SA, Rural Solutions SA Emergency Management group is highly trained in the Prevention, Preparedness, Response and Recovery relating to bio security threats in SA and in responding to incidents that affect agriculture and agricultural production.

From bases across regional rural South Australia, the Rural Solutions SA team is commissioned as a frontline resource for dealing with emergencies. This can mean setting up and managing command posts during bushfires and floods; tackling plagues of locusts and grasshoppers or speeding up access for communities to disaster relief by Government Agencies.

Rural Solutions SA provides management and leadership, business administration, technical and field support for emergencies and disasters and other incidents.

Rural Solutions SA responds to and assists in the management of incidents such as:

- Animal Relief Services
- Emergency Animal Disease
- Emergency Plant Pests and Diseases
- Marine Pests and or Diseases
- Aquaculture Pests and or Diseases

Rural Solutions SA has over 40 staff involved directly in Emergency Management with a core team of 35 consultants, eight of which belong to the Divisional Response Team who have the ability to manage incidents across the state. The Divisional Response Team is supported by 30 Functional Service Liaison Officers who are trained in the areas of Planning, Operations and Logistics.

In turn these people are supported by a selection of over 200 regional and city staff who have wide ranging skills from field work to management in a wide range of disciplines within agriculture and the rural environment.

Rural Solutions SA contributes to regular information transfer between Local Service Areas (Police Districts) and the respective Functional Services such as SAPOL, MFS, CFS, SES, Transport SA, SA Water and takes part in regional training with these groups.

Rural Solutions SA provides regional intelligence regarding emergency situations and incidents that may impact on agriculture or agricultural production to the Executive Director of Agriculture and Wine and the Chief Executive of Primary Industries and Resources SA.

As part of South Australia's preparedness to manage major incidents, our staff take part in training at local, state and national levels together with Government and Non-Government Agencies.

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in this issue

- ▶ **Emergency Management**
- ▶ **Lower Eyre Peninsula Bushfire Re-establishment Program 2005-2007**
- ▶ **An Opportunity Out of Adversity – Measuring and Monitoring Fire Effects on Agricultural Land**
- ▶ **Rural Solutions SA Emergency Management Snapshots**





Lower Eyre Peninsula

Bushfire Re-establishment Program

2005–2007

The Lower Eyre Peninsula Bushfire Re-establishment Program was a joint Australian and State Government initiative. It was developed to assist landholders recover and re-establish from the bushfire on 11 January 2005.

The program aimed to encourage adoption of sustainable production practices, with a significant emphasis on natural resource management and protection.

Key elements of the Lower Eyre Peninsula Re-establishment Program were:

- Strategic planning workshops and associated technical advice.
- Business Planning Grants.
- Sustainable Agriculture and Biodiversity Enhancement Grants.
- Research on the impacts of fire on soils and biodiversity.
- Pest and weed control program.

The program aimed to improve the foundation for sustainable agriculture, natural resource management and biodiversity conservation, through assisting in:

- Protecting and managing priority natural resources.
- Planning to enhance natural resources and biodiversity improvement.
- Supporting sustainable agriculture improvement projects.
- Assessing business direction.
- Rebuilding and re-establishing properties.
- Capitalising on research opportunities.

With 4 months of the program to go, the results at 28 February 2007 depict:

Farm Business Enterprises

118 businesses, represented by 145 people, have attended the strategic planning workshop series that was the entry point into the program. These figures represent 98% of Farm Business Enterprises (FBE's) in the fire-affected area, and is 131% of initial expected capture.

100% of FBE's have been contacted. It was this high level of participation in the early phase of the Program that has enabled LEPBRP to report such a successful result to date.

95 Business Plan Grant approvals have been made. This also exceeds the initial program projection. 84 of these Business Plans have been completed to the value of \$331,875.

74 Sustainable Agriculture Grants have been approved with 53 completed to the value of \$613,435.

73 Biodiversity Enhancement Grants have been approved with 40 completed to the value of \$544,195.

Small Holdings

Of the small landholders, 62 properties, represented by 90 people have attended workshops. This represents 41% of small holdings in the fire-affected area, and is 55% of initial expected capture.

17 Minor Biodiversity Enhancement Grants have been made to small landholders. Seven small landholders have been upgraded to major Biodiversity Enhancement Grants. Total Biodiversity Enhancement Grants paid to small holdings to date is \$81,685.

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Australian Government



Government
of South Australia



An Opportunity Out of Adversity – Measuring and Monitoring Fire Effects on Agricultural Land

Background

On 11 January 2005, an extreme bushfire event swept across the Lower Eyre Peninsula region in South Australia. The fire burnt approximately 83,000 hectares, much of it highly productive agricultural land used for livestock.

In the wake of the fire, concerns were raised that its extreme intensity may have had a significant impact on the soils and their agricultural productive capacity. A monitoring program was put in place by Rural Solutions SA and SARDI, to gather quantitative data to assess effects on soils under agricultural production. Funding to expand and continue this monitoring program through to 18 months post-fire (June 2006) was subsequently provided through the Lower Eyre Peninsula Bushfire Re-establishment Program (LEPBRP), funded by the Australian and SA State Governments.

Study Aims

1. To measure initial effects of 11 January 2005 fire event on Lower Eyre Peninsula farm paddocks in terms of soil physical, chemical and biological properties.
2. To monitor changes in these characteristics over the following 12 months, and effects on crop and pasture production on fire-affected soils, to assess recovery.
3. To formulate guidelines for crop and pasture management on burnt paddocks, and for assessing impacts in future fire events.

The project study team involved the combined resources of SARDI and Rural Solutions SA in Port Lincoln.

Conclusions

The major conclusions from this study were summarised in a questionnaire to farmers in the fire zone, to gain feedback on whether these findings were consistent with what they had observed on their fire-affected paddocks during 2005.

Responses received from farmers generally showed a high level of agreement (70 to 100%) with the findings but some points of significant dissension. The major points of disagreement related to effects of the fire on pasture regeneration and composition, weeds present and grain yield from burnt areas – several farmers considered that yields were significantly depressed on burnt paddocks.

Major study conclusions:

- **Effects of the burn on pasture regeneration and composition were only minimal.** Responses were variable, with higher plant numbers after burning at some sites, while reduced on others. But overall, no mass destruction of soil seed reserves was evident.
- **Effects on weed populations were also variable** – no clearly defined changes or trends.
- **Soil physical and chemical characteristics were largely unchanged due to the burn itself,** but subsequent erosion has removed some topsoil and nutrients with it.
- **Root pathogen populations at tested sites were low, with no evidence of a change on burnt ground.** Visual root inspection on wheat plants has also shown no evidence of root diseases present.
- **But some diseases were still very prevalent after the fire (e.g. blackleg in canola and brown leaf spot in lupins),** indicating high survival of inoculum sources through the fire.
- **Late winter/spring dry matter levels in regenerating pasture and crop appeared to be lower on burnt ground,** tied in with some observations of slower growth and possible N deficiency symptoms.
- **Grain yield and quality on burnt ground were as good as, if not better than on unburnt or pre-fire.** The sole comparison of wheat grown on adjoining burnt and unburnt ground showed an 8% higher yield off the burnt, and higher grain protein levels, although soil type variations between the two areas may well explain this difference.

Future Development

Further information and data will be gathered from farmers to resolve these significant differences between the monitoring results and their observations, in particular to identify those situations where different responses to the fire were observed. This information will contribute to the development of the Fire Recovery Management technical resource manual for landholders in future fire events, which will be produced for the Lower Eyre Peninsula Bushfire Re-establishment Program in 2007. When finalised, copies will be available from Rural Solutions SA PO Box 1783 Port Lincoln SA 5606.

Emergency Management Snapshots



Grasshoppers

In the latter half of 2006, Primary Industries and Resources SA acquired the services of Rural Solutions SA to manage and support the "Grasshopper Control Program" in the Mid North of South Australia. Rural Solutions SA provided the overall leadership for the Control Program including the provision of support staff to manage the Planning, Operations and Logistics of the incident.

The objective of the Control Program was to reduce the threat of damage by grasshoppers to crop and pastures in the Southern Flinders and Mid North areas of South Australia.

Program management involved the formation of an "Incident Control Team" consisting of the Executive Director of Agriculture and Wine, Program Manager, Technical officer, Planning Officer, Administration, Finance and Media support. Rural Solutions SA filled the roles of Program Manager, Planning Officer and Administration in partnership with SARDI technical staff who liaised with the Australian Plague Locust Commission.

In conjunction with Plant Health, SARDI and Spatial Information Services, Rural Solutions SA assisted the Planning and Operations group by providing an officer in charge, logistics, administrative and mapping support.

Like many aspects of Rural Solutions SA's business, the emergency management group has a high standing with rural community groups and provides a strong link between the Community and Government Agencies as well as the Minister for Agriculture.



Virginia Floods

In November 2005 severe flooding of the Gawler River caused significant economic, environmental and social damage to the horticultural community of the Virginia District.

During the recovery phase Rural Solutions SA provided leadership and management to the Virginia Horticultural Centre and the growers within the community. Business services staff assisted in the delivery of disaster funds to 87 applicants totalling \$854,000. Rural Solutions SA Functional Liaison Officers coordinated many of the relief aspects relating to debris removal, flood water pumping and reconnection of essential services. Over the following months Rural Solutions SA provided technical assistance to growers helping them address issues such as soil testing, nutrient application, toxin management, crop selection and crop management.

Rural Solutions SA provided financial assistance to manage debt and assist producers to negotiate institutional systems and immediate cash flow issues arising from the impact of the floods. Rural Solutions SA also provided through Primary Industries and Resources SA a representative to the Community Development Group. One of the outcomes included "Grower specific" training packages that provide the opportunity to gain qualifications.

Renmark Storm Damage

In early 2007 a small but highly devastating storm hit the river town of Renmark. Many grape and orchard growers experienced severe damage to their vines and trees.

Rural Solutions SA's main roles included:

- The assessment of damaged plants, advice on managing those plants and assistance and coordination of volunteers involved in the recovery process.
- Data collection, recording and management of requests for and offers of help.
- Provision of the two way flow between the Government and Growers.
- Assistance in the delivery of financial assistance from Government to the affected growers.

The storm was a few weeks before harvest and 130 hectares of flattened vines had to be lifted to save the grapes. The timely technical expertise and administrative services of Rural Solutions SA together with cooperation of Industry and local government resulted in the survival of many of the vines and trees and minimised financial losses to the growers.



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