

APPLICATIONS OF RESEARCH TO DISASTER PLANNING

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1. THE FIRE

The disaster of February 16, 1983, more commonly termed the Ash Wednesday bushfires, highlighted the threat which is ever present during the summer months in South Australia. History has shown that bushfires occur regularly in South Australia and appear to be part of the natural environment. The Ash Wednesday bushfires of 1983 have clearly shown that uncontrolled fires in zones of habitation have serious consequences. These are, loss of life, injury, material and financial loss, social distress, and damage to the environment.

The cost to both the community in general and individuals is high.

The 1983 disaster claimed 28 lives and resulted in injuries to more than 1 500 people, 85 of whom were hospitalised because of the severity of their injuries. More than 300 homes were destroyed or damaged, some 560 vehicles were destroyed and sheep and cattle losses exceeded 250,000. Nearly 1 000 rural properties were affected by the fires and 10 000 kilometres of fencing destroyed. The Woods and Forest Department lost approximately 1/4 of its commercial forests and major losses of national parks and wildlife reserves were sustained. An estimate of property losses is difficult to make but one authoritative estimate places the figure at over \$200m.

The residential development of the Adelaide Hills has produced a potentially dangerous situation for those who live in the semi-rural environment. Residents in the Hills are moving into, or are currently occupying, areas which are extremely vulnerable to destruction by fire. Due to the lack of understanding of the nature of the environment, people are inadvertently increasing the damage done by bushfires. Planning and development practices still allow sub-divisions and structures to be developed without sufficient fire protection measures, and accumulation of natural vegetation in residential areas continues to constitute a hazard.

The potential for uncontrolled fires on occasions of extremely dangerous fire conditions puts considerable strain on fire control organisations, control planning, control procedures and management of resources. In situations of extreme fire risk fires develop quickly and soon become uncontrollable. Adverse weather conditions could render fire spotting and fire fighting measures virtually ineffective. On Ash Wednesday, 1983, South Australians were shocked by the fierceness and