

THE SOUTHLAND FLOOD
AN ORGANISATIONAL APPROACH TO DISASTER RECOVERY

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INTRODUCTION

A disaster seriously disrupts the personal, social, economic and political interactions of the individual and family. Such disruption places the individual and family in unfamiliar stressful situations, as they attempt to gain assistance and find solutions to the numerous problems that confront them. Disaster relief for the individual involves a large number of organisations and departments.

Since the first Civil Defence Act in 1962, civil defence responsibilities in New Zealand have terminated once the threat to life had diminished. With no organisations to coordinate the post disaster recovery, the stress placed upon the individual and family increased considerably as they tried to get the necessary assistance through a myriad of private aid groups, government departments and insurance groups.

With these problems identified the Civil Defence Act 1983 made provision for the coordination of those agencies involved in disaster relief and recovery. The Southland flood of January 1984 was the first opportunity for the new legislation to be used.

This paper provides a synopsis of the Southland flood and sets out the organisational approach that was adopted for relief and recovery in the affected communities.

Currently, a research programme is being developed to ~~examine~~ human behavioural aspects of the disaster, in particular the long-term effectiveness of the organisational response to the disaster. From the results it is hoped to improve the disaster recovery capabilities of civil defence organisations and government departments.

Introduction to Civil Defence in New Zealand.

"Civil Defence" is defined as measures necessary for public safety, designed to prevent, reduce or overcome the effects of earthquakes, explosions, floods, storms, tsunamis, land movement or the spillage of dangerous gases or substances.

Civil defence is the responsibility of local and regional government, central government and all government departments. All these agencies must plan for their use in a civil defence emergency.

A civil defence emergency is normally only declared when the resources of the emergency services are unable to cope with a situation that threatens public safety.

New Zealand has had an Act of Parliament covering civil defence since 1962. The Act sets out the statutory structures, powers and responsibilities of government during a state of civil defence emergency. In December 1983, amendments to the Act were consolidated and new sections added to produce the Civil Defence Act 1983. The new Act made special provision for the disaster recovery phase to ensure the efforts of the community and government agencies were coordinated, thereby assisting the disaster victims re-establish their lives.

THE SOUTHLAND FLOOD

The Southland flood was the first opportunity to use this section of the Civil Defence Act 1983. The flood was the largest disaster in New Zealand since the devastating Napier earthquake in 1931. An estimated 5000 people evacuated their homes and \$50 million worth of property was damaged. Many of the evacuees were able to return to their homes within a short time. Unfortunately, for some 1400 evacuees whose homes were inundated, caravans, rented homes and billets have had to suffice as they await the rebuilding or restoration of their homes.

Background

On 26-27 January 1984 a low pressure weather front passed slowly over the southern part of the South Island. During a twenty-four hour period, rainfall in the Southland Catchment ranged between 600mm in the hills and 143mm in Invercargill City (population 49,000).

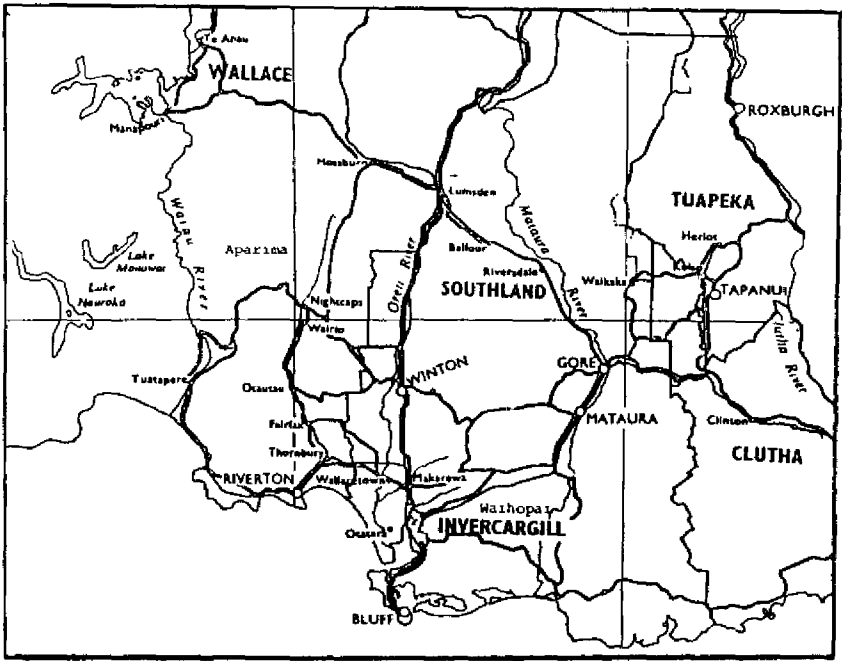
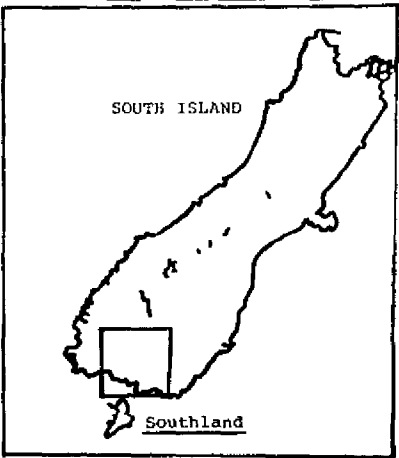
As a result of this intense rainfall, the rivers throughout Southland overtopped their banks. The Makarewa River ran six metres above normal and just below its confluence with the already swollen Oreti River breached the stopbanks flooding the Invercargill suburbs of Otatara, Grasmere, and parts of Invercargill Airport. (Map 1).

Floodwaters from the Waihopai River affected the northern residential areas of Waikiwi and Thompsons Bush, while the swollen Otapuni Stream, effectively cut Invercargill in two causing extensive damage to the commercial and industrial areas of Invercargill.

A state of local civil defence emergency was declared at 0400 hours on 27 January. This was extended to a state of regional civil defence emergency at 1000 hours because of widespread, serious flooding in the rural towns.

The local and regional civil defence organisations responded accordingly providing public information, rescue teams, evacuation and welfare centres, and catering teams to ensure the needs of evacuees were met.

Map 1
THE SOUTHLAND REGION



At 2000 hours on 27 January, the flooding problems increased as the high tide caused the Waihopai to breach its stopbanks completely flooding the airport and exacerbating the flooding in the suburbs of Grasmere and Waikiwi.

A total of 1205 dwellings in Invercargill were affected by the floodwaters, 730 suffered prolonged inundation. Official registration centres, established by Civil Defence, registered over 1700 evacuees. However, many evacuees bypassed the civil defence registration procedure and stayed with friends and relatives. Since the civil defence organisation had no record of these people they were unable to assist concerned relatives who telephoned from around the world. The only assurance that could be given was that no lives had been lost.

In Southland region, Wallace County evacuated 860 people from the small towns of Otautau and Tuatapere as the Aparima River and Waiau River flooded the towns.

The community of Otatara (population 2,500) was completely isolated as floodwaters from the Waihopai and Oreti Rivers covered the only road link between the community and Invercargill.

In all flooded residential areas, sewage pollution became a major problem and necessitated the cordoning off of some residential areas, until the health risk diminished. Such action did not endear either the civil defence organisations, police or army to the evacuated population.

The disaster resulted in a major dislocation of population and disruption of residential and commercial areas. Clearly, the recovery programme required was beyond the capability of any one organisation or government department in Invercargill.

THE RECOVERY PROGRAMME

The Disaster Recovery Coordinator

Using the new powers provided under the Civil Defence Act 1983, the Minister of Civil Defence appointed a Disaster Recovery Coordinator. The Coordinator was responsible for -

"the direction and coordination of the use of all resources and services made available by departments, organisations, local authorities, regional or united councils, and territorial authorities for the restoration of necessary services, amenities and habitations." (Section 71 (1))

From his appointment on the third day of the emergency, Mr R.T.

Baines (Resident Engineer, Ministry of Works & Development), initiated the formation of committees that would deal with the housing, food, and financial problems of the evacuees, once the civil defence emergency was lifted.

While the emergency was still in force the needs of the evacuees were coordinated by the regional civil defence organisation, in liaison with the Disaster Recovery Coordinator. The civil defence welfare section, a small group of devoted people, worked non-stop for fourteen days coordinating the 'clean-up' resources, finding billets, caravans and temporary housing for flood victims.

The 'clean-up' phase was completed within a short time, the community (and government departments) providing assistance, gutting flood-damaged houses, clearing sections and distributing lime over the raw sewage that covered the ground. Most services were quickly restored, although the airport was to remain inoperable for ten days. During this period, the information centres, established by civil defence, gave advice on insurance matters and gave assistance to those seeking professional counselling.

The welfare section bore the brunt of the initial recovery programme, being inundated with enquiries, offers of billets, caravans and houses for evacuees, furniture, food, toys and clothing. Having coped with welfare through the impact phase, the small team, who were already under pressure, now had to organise and coordinate the needs of the victims. Tight controls were placed upon the movement of flood relief donations into Southland. Requests were made for money to assist the Mayoral Relief Fund and donations of clothing, food, etc. were discouraged until the needs of the flood victims could be ascertained.

With so many of the evacuees not registered by civil defence, no clear indication of flood victims needs could be gauged. To ascertain these needs and clarify the direction of recovery and thereby accelerate the recovery programme, the regional civil defence organisation and Disaster Recovery Coordinator conducted a survey. The questions were directed at finding -

- (a) the accommodation requirements of the victims (whether they required a house or caravan, and how long they would expect to be in this accommodation);
- (b) the furniture needs of the victims;
- (c) the counselling requirements of victims;
- (d) the requirement for tradesmen to restore houses.

The flooded residential areas of Invercargill were clearly defined, so eighty trained volunteer counsellors were sent to interview people. Since few residents were able to occupy homes, residents had been advised through the media to go to their properties to assist in the completion of the survey. Over 750 residents were interviewed.

Within twelve hours of the survey being completed, some provisional results were available to the civil defence organisation as the data had been programmed into the Invercargill City Council computer. The computer output provided valuable information to the civil defence organisation and the Disaster Recovery Coordinator, who were then able to send trained counsellors to people who required assistance, provide housing or caravans for people still billeted with friends, and get some indication of the furniture requirements of victims. Later, the survey was extended to cover the rural areas affected by the flooding.

The survey was designed quickly, and as a result the information gained was often not as specific as would have been desired. As a consequence, a small force of workers was employed to extrapolate and expand on information gained.

The Disaster Recovery Coordinator, assisted by the Invercargill City Engineer, Building and Health Inspectors, also undertook rebuilding resources survey and prepared estimates on the amount, type, and availability of building materials required for the restoration of damaged houses.

Accordingly, members of the Master Builders Federation, Builders Hardware Association and Builders' Supply Merchants were notified to ascertain the availability of material and tradesmen. These organisations reported they could provide the necessary materials and tradesmen to cope with the major recovery programme. Unfortunately, this has not proved correct, and as a consequence the rebuilding programme will not be completed by winter, leaving many families in temporary accommodation for some months to come.

Apart from the surveys, the Disaster Recovery Coordinator organised committees to deal with the welfare, housing, food and furniture needs of flood victims once the emergency was lifted.

Welfare Committee

Representatives of the Department of Social Welfare, the Southland Council of Churches, Presbyterian Social Services, Psychological Services, City Council representatives, Southland Hospital Board and the Health Department were called together to form a Welfare Committee.

The committee was tasked with -

- (a) the coordination of all welfare activities as required by flood recovery operations;
- (b) counselling and support of flood victims referred to them by local authorities;

- (c) direction and advice to other committees in regard to the distribution of goods and accommodation; and
- (d) the maintenance of sufficient records to allow follow-up action and on-going support.

To carry out these tasks, a Flood Recovery Welfare Coordination Centre was established to coordinate the counselling services of the Social Welfare Department, and involved both professional counsellors and psychologists and volunteers from church organisations. Budgetary and marriage guidance advisors were also made available.

Accommodation

A Temporary Accommodation Committee was constituted by the Coordinator to deal with the housing needs of the victims. Sponsored by the Housing Corporation, the committee was responsible for -

- (a) monitoring and maintaining registers of caravans, houses and billets; who they were allocated to; and a register of caravans still available;
- (b) Monitoring the quality of house repairs; the costs and giving advice on repair matters (the primary responsibility for this was given to the Housing Corporation).

Legal tenancy agreements were drafted by the Invercargill City Council and Civil Defence, for the renting of houses and caravans. Financial assistance for accommodation and billets were met by central government, through the Department of Social Welfare.

Early on in the emergency it was found that billets were an unsuitable long-term accommodation solution. Personal conflicts and family problems caused by the floods were often compounded in a billeting situation. Accordingly, people were provided with a house or caravan accommodation. Most caravan occupiers located themselves on their own properties and began work on rebuilding their homes.

Smaller committees were also established to deal with the distribution of toys, food and clothing to flood victims.

Liaison and information flows between the civil defence organisation and the Disaster Recovery committees was essential if the committees were to function effectively once the state of emergency was lifted. Survey results were made available to organisations appointed to the committees to indicate the problems being encountered and the resources required.

With the lifting of the civil defence emergency on 15 February, responsibility for assisting disaster victims previously undertaken by civil defence was assumed by the local government organisation, Invercargill City Council and the Disaster Recovery committees. To ensure that liaison was maintained between local government, the Flood Recovery committees and disaster victims, a Flood Relief Officer was appointed by Invercargill City Council.

The Disaster Recovery Coordinator continued to assist the City Council and to monitor the work of the Disaster Recovery committees until 11 March 1984.

These committees will remain in operation for many months, particularly the welfare and accommodation committees. The welfare committee is maintaining its Flood Recovery Welfare Coordination Centre and providing professional counselling to flood victims. The housing problems will be an on-going matter. Already problems and delays are being experienced in rebuilding and restoring properties. However, where work is being done the Housing Corporation are closely monitoring the quality and cost of rebuilding work to ensure the victims do not suffer further from expensive or poor quality restoration work.

CONCLUSION

The recovery programme instigated after the Southland flood may appear to have run smoothly, but in fact it did not. Personalities within organisations clashed, organisations were unsure of their responsibilities and the flow of information to organisations and the public was sometimes irregular, incomplete and wrong. However, despite these problems, a structural organisation was established which greatly assisted the recovery of the Southland community. The problems of the flood victims are being dealt with and disaster victims know where assistance and advice can be sought.

Early indications are that the Disaster Recovery concept worked ~~effectively~~ and the value of establishing an umbrella organisation to deal with the long-term requirements of disaster victims was shown. However, more research on these matters will be undertaken. As a result of this research, it is hoped the disaster recovery function will become a separate national civil defence plan, which will provide guidance to local and regional government organisations and Government departments in providing for disaster recovery.