

A co-ordinated response to major disasters

Establishing links with surrounding neighbours and planning for the worst can make all the difference when a major incident occurs, as **JL Smither** explains

WHEN A MAJOR DISASTER occurs, a quick response is absolutely critical. However, many areas find they are unable to meet the needs of the response without help from surrounding jurisdictions or private citizens. Even when help is offered, emergency managers can have difficulty gauging how much to expect and managing its distribution without a plan.

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■ Urban areas, which are particularly vulnerable to disasters, as well as rural areas, should establish mutual aid agreements with surrounding communities and businesses.

These are important tools for enhancing emergency preparedness, as they guarantee available resources from neighbouring jurisdictions in the event of a major disaster. Mutual aid agreements should be reviewed on a regular basis to ensure they provide adequate levels of automatic aid and cover all hazards.

During the months after Hurricane Katrina, the Alabama Emergency Management Agency ran a series of state and local exercises to test hurricane preparedness and the integration of lessons learned during Katrina. The agency recognised the valuable contribution of mutual aid organisations during the aftermath, and invited staff members from some teams to join in the hurricane preparedness exercises. Eventually, all active mutual aid organisations were asked to participate. This practice of including mutual aid teams allows staff to gain familiarity with a region's unique challenges, response procedures, and first responders.

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■ When mutual aid resources respond to a disaster, the primary jurisdiction should have a liaison to manage their direction and distribution.

For example, approximately 20 Rhode Island municipal police departments responded to the 2003 Station nightclub fire in Warwick, Rhode Island. Officers who responded as part of the mutual aid agreement received little instruction when they arrived and found it

difficult to integrate themselves into the ongoing response efforts, as they were not distributed as effectively as possible. The report for this incident recommended that a mutual aid liaison be posted to the staging area to effectively incorporate resources into the response.

Often in the wake of a large disaster, concerned individuals throughout the community, and sometimes the world, will offer support in the form of material goods, time, effort, or money. This surge of charity can be overwhelming to emergency responders who have to manage the distribution of unsolicited goods and services.

During a table-top exercise in June 2006, participants discussed the scenario of a Category 4 hurricane hitting the New Jersey coast. As part of this, they reviewed the problems that emergency managers encountered in the wake of the September 11 terrorist attacks in New York, and after Hurricane Katrina hit New Orleans in Louisiana. Responders received a large amount of unsolicited goods after each event and were unable to process and distribute them all quickly. In New York, officials had to locate, manage, and pay for 682,000 square feet (63,360 square metres) of storage space to hold spontaneous donations. To prevent the challenges these presented, participants concluded that they should consider releasing public messages to request only financial donations or, in some cases, special donations, such as blood.

Once an area receives and distributes help in the form of mutual aid response or donations appropriately, emergency managers must work together to provide response efforts. One often overlooked detail in planning the response is that of providing responders with the area-specific information they need to fulfil their roles. In order to plan an effective and co-ordinated response, responders must have the same basic information from which to plan.

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■ An important aspect of resilience and recovery is maintaining up-to-date maps

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of an area before a disaster strikes.

Without detailed maps of terrain and infrastructure, emergency responders could have great difficulty locating areas in need of help. Even responders who are familiar with an area can become disoriented after a landscape-altering disaster such as an earthquake, cyclone, or flood. Maps should be readily available to responders and include the locations of medical facilities, utilities, hazardous materials, drinking water sources, fire and police stations, and any other information valuable during emergency response efforts.

To keep maps updated continually, emergency managers should consider using Geographic Information Systems (GIS), a computer system capable of capturing, storing, analysing, and displaying geographical information in a web-based digital format. GIS professionals can help responders update their maps to reflect landscape changes. During the 2003 firestorms in San Diego County, California, GIS professionals developed updated maps of the fire boundaries.

These maps proved extremely valuable to firefighting efforts, and the after-action report recommended that GIS professionals be available at all times during an incident of this nature. In order for these maps to be as effective as possible, all maps should follow the same grid pattern and all maps of an area should include easy-to-understand symbols, colours, and sizes. After major natural disasters, streets, public buildings, and notable infrastructure may no longer be recognisable. In the aftermath of a natural disaster, all responders should be able to easily recognise signifiers used consistently in maps to understand exactly where response efforts are needed.

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