# Disaster Waste Management



# JCW Influencing Factors



Dr. Charlotte Brown – charlotte.brown@cpit.ac.nz
Dr. Mark Milke – mark.milke@canterbury.ac.nz

How do you plan to manage waste from a disaster that could be any hazard and any size? Focus on key decisions and the main factors that influence those decisions.

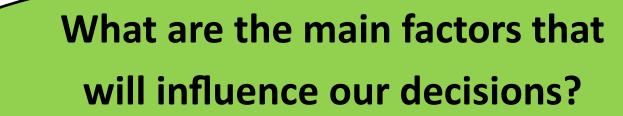


- 1. How urgent is the clean-up?
- 2. How quickly should we act?
- 3. Should we govern this locally or nationally?
- 4. Who should the lead authority be (environmental, municipal or emergency)?

What are our key decisions?



- 5. Should work be publically or privately funded?
- 6. Should we centrally manage the works?
- 7. Should the public participate?
- 8. Should we recycle?
- 9. Should we separate materials on-site or off-site?





- **Disaster scale**
- Number of displaced people
- Geographic extent
- Duration of hazard
- Disruption to road network
- **Volume of waste**
- Human health hazard
- **Environmental health hazard**
- Movement of waste between property boundaries
- Difficulty of handling waste



## Overview

Disaster impacts vary greatly between events. Consequently disaster waste guidance documents often comprise of very generic statements about relevant management topics and/or provide a series of case studies which are difficult to use in pre and postevent planning.

This research set out to investigate the waste management approaches following a number of disaster events to determine:

- a) the key decision points, and
- b) the key influencing factors on these decisions.

The research identified nine critical questions and ten key factors that have the greatest influence on decision making.

### Methodology

This research was part of a multi-hazard, multi-national, multi-case disaster waste management study. Using interviews, site visits, active participatory research and literature analysis, the research looked across five different cases to identify the common decisions and decision factors in disaster waste management.

#### **Benefits**

Having key decision points and influencing factors has a number of benefits to disaster waste management planning. This approach enables:

- A multi-hazard approach to disaster waste planning
- Development of disaster planning and training scenarios that trigger different responses.
- The ability to better distil lessons from past disasters.

#### References

Brown, C., Milke, M. & Seville, E. (2011) 'Disaster Waste Management: a Review Article'. Waste Management, 31: 1085-98. Brown, C. (2012) Disaster waste management: a systems approach. PhD Thesis. University of Canterbury, New Zealand.