

A review of public communication

by the mine owner (GDF SUEZ Australian Energy)
and government departments and agencies
during the 2014 Hazelwood coal mine fire

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Expert witness details and statement

This report has been prepared in response to:

- a. **Offer of engagement: Expert advice from Professor Jim Macnamara to Hazelwood Board of Inquiry** of 13 May 2014; and
- b. **Letter re Hazelwood Mine Fire Inquiry** of 14 May 2014 attached as Appendix 1.

The analysis and advice provided in this report is independent and impartial. The author has no connection with any of the parties referred to in the report.

The author's expertise relevant to providing this report is summarised in Section 5 of this report and outlined in more detail in his Curriculum Vitae attached as Appendix 2.

The author has read the *Expert Witness Code of Conduct*, Supreme Court (General Civil Procedures) Rules 2005, Form 44A, Rule 44.01.

The author hereby declares: "I have made all inquiries which I believe are desirable and appropriate and no matters of significance have been withheld".

The author has obtained best available evidence in relation to the public communication of the government departments, agencies and companies discussed in this report. Any error or omission is unintentional and any substantial error or omission will be corrected by addendum.



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1. The purpose and scope of this report

This report has been prepared and presented in response to a request for expert public communication advice to assist the Board of Inquiry into the Hazelwood coal mine fire of February 2014.

In particular, this report was prepared to assist the Board of Inquiry in relation to **Clause 4** of its Terms of Reference outlined in the Order in Council for ‘Appointment of a Board of Inquiry into the Hazelwood Coal Mine Fire’ issued under the Constitution Act 1975 on 21 March 2014 which instructed the Board of Inquiry “to inquire into, and report on, and make any recommendations that the Board considers appropriate” in relation to:

4. The adequacy and effectiveness of the response to the Hazelwood Coal Mine Fire by:
 - i. the owner, operator and licensee of the Hazelwood Coal Mine;
 - ii. the emergency services; and
 - iii. other relevant government agencies, including environmental and public health officials, and, **in particular, the measures taken in respect of the health and well-being of the affected communities by:**
 - iv. **informing the affected communities of the Hazelwood Coal Mine Fire and about its known effects and risks;** and
 - v. responding to those effects on, and risks to, the affected communities [emphasis added].¹

Specifically, the Board of Inquiry requested the public communication expert to provide:

1. Analysis and critical review of the communication activities of Government Departments and the Mine Operator GDF Suez;
2. Case studies of international best practice of crisis management using all forms of media;
3. Advice on future policies, strategies and structures to strengthen the responses of agencies in similar situations;
4. Participation in panel discussions with Victorian journalists on the management of public communications;
5. Presentation of evidence and advice at the Public Hearings.²

Focus

This report summarises the key principles of best practice in crisis, emergency and disaster communication based on national and international research and scholarly literature, as well as case studies, and then comparatively examines public communication by the mine company and key government bodies in relation to the 2014 Hazelwood coal mine fire. Its focus is public communication. It does not address other aspects of crisis or emergency response and management.

It is not within the scope of this analysis to determine the accuracy of health information distributed, and this report does not analyse the content of communication in detail in terms of its relevance and message appropriateness for audiences (i.e., demographics, multilinguality for CALD communities, etc.). These aspects are addressed in a separate report.

2. Key findings in relation to public communication

2.1 The mine operator GDF SUEZ Hazelwood and the mine owner GDF SUEZ Australian Energy appear to have been conspicuous by their absence in terms of public communication throughout the period of the crisis. This is contrary to best practice crisis communication which advocates that the central company or organisation involved in a crisis or emergency should be open, honest, quick to respond, and act responsibly. **The mine operator appears to have addressed operational requirements to bring the fire under control, but demonstrated little concern for the community and affected individuals** (e.g., by not attending public meetings, not issuing statements in a timely manner, not distributing information, etc.).

2.2 **One of the major community concerns expressed – the slowness in information being provided and inadequacy of information during key periods of the crisis – appears to be justified.** This analysis shows that even though public meetings started from 12 February (3 days after the fire started), Chief Health Officer advisories, ‘CFA Updates’, and EPA ‘News and Updates’ on the mine fire began on 17 February (8 days after the fire started); distribution of Department of Health community information sheets began on 24 February (15 days after the fire started); and Department of Health online *Community Updates* began on 17 March (34 days after the fire started).

A media release was not issued by the EPA or a senior government leader for 11 days after the fire started. The first media release issued by Latrobe City Council was not until 10 days after the mine fire started, and the mine operator did not issue a media release until 11 March – 28 days after the fire started.

2.4 Social media were used substantially by the Victorian government departments and authorities involved. They played a useful complementary role to other media and channels of communication during the crisis. However, while social media are capable of wide reach within some demographic and socioeconomic groups, **communication with diverse communities including elderly, low SES, and CALD communities, and those in rural areas with limited internet access, requires use of a range of media and methods.** More effective public communication during this crisis could have been achieved through greater use of:

- i. Public meetings with speakers capable of explaining what people need to know and also incorporating listening sessions to understand community concerns (i.e., two-way communication);
- ii. Printed information and fact sheets on key issues of concern (e.g., health effects, what to do in the circumstances, etc.). These can be easily passed around and kept for regular referral;
- iii. Direct letterbox drops of information sheets door-to-door in heavily affected areas, noting that not all people will or can attend meetings or go online;
- iv. Detailed information provided to and through local media (e.g., inserting key information and fact sheets inside local newspapers and even running full-page ads to provide key information), as well as enlisting the support of local media in the project through free radio and TV Community Service Announcements.

- 2.5 Crisis communication best practice recognises that a central coordination centre for communication is usually required when multiple organisations are involved. **Crisis, emergency and disaster planning by Victorian government departments and agencies should incorporate establishment of a central crisis communication centre** in the event of a crisis, emergency or disaster in which representatives of each body can liaise, check facts, and cooperate – particularly when events occur remote from head offices;
- 2.6 All organisations examined appear to need **crisis communication training** as, while many provided factual information, **none addressed basic human needs for empathy, expressions of concern and care, and assurances**. The psychological, cultural, and social aspects of this crisis were largely overlooked in public communication examined.
- 2.7 Departments and agencies potentially involved in crises, emergencies, or disasters should consider the employment of **community relations specialists** who can be deployed into communities during an emergency or disaster to work with communities in accessing and interpreting information and acting as an interface between communities and the providers of information and services. This recognises that operational staff and management have high pressure workloads and head office communication departments are often remote from where emergencies and disasters occur. This recommendation also notes the previous finding that the psychological, cultural, and social aspects of a crisis need to be better recognised.
- 2.8 The **mine operator GDF SUEZ Australian Energy, in particular, needs to review its crisis communication approach** and demonstrate greater concern for the local communities in which it operates and which it affects. While its economic importance to the area and to Victoria may be key to its continuing operation, failure to meet social and environmental expectations are likely to trigger further criticism, reputational damage, and potentially regulatory action.
- 2.9 While distributing considerable information to residents, **government departments and agencies did not engage to any significant extent in listening** to or partnering with local residents and community groups, which are identified as important strategies in best practice risk and crisis communication. Had this been done soon after the coal mine fire started, better understanding of the psychological, cultural, and social needs of residents, as well as physical needs, would have been achieved. Also, local groups could have been engaged in the task of distributing information (i.e., using local networks).
- 2.10 As well as providing a voice for the community, the formation of Voices of the Valley illustrates **the importance of self-help and agency**. Communities should look to successful grassroots initiatives as models and local councils should provide some resources (e.g., meeting rooms and small grants) to enable communities to self-organise and develop resilience, and leverage such networks.

2. Best practice crisis and emergency communication

The following discussion summarises best practice in public communication during crises, emergencies and disasters based on:

1. Research and academic scholarship worldwide;
2. Relevant case studies.

What research and scholarship tell us

A large body of research literature has been produced internationally on *crisis management* and *crisis communication*. Crisis communication is usually considered a sub-set of crisis management, recognising that the latter includes major operational responsibilities as well as legal, political, financial, environmental and often human health and welfare considerations. However, crisis communication is widely advocated as a central requirement in all crisis management planning and implementation.

Crisis communication is researched and studied as a specialist practice within public relations and corporate communication³.

The field of crisis communication is closely related to *emergency communication*, which is a key element in emergency and disaster management, as well as some aspects of *risk communication*. Best practice in these fields in relation to public communication is incorporated into the following discussion. However, much discussion of emergency and disaster communication and ‘communications’ is focussed on the technical aspects of telecommunications such as radio transmissions, telephone and satellite systems, internet connectivity, etc. Only information pertinent to human communication between organisations and affected individuals and communities is included in this analysis.

Three phases of crises, emergencies and disasters

Crisis communication, emergency communication and disaster communication all recognise three key phases in which public communication as well as a range of operational initiatives need to be undertaken, as follows:

1. **Preparedness**, which to some extent can prevent crises or reduce risk and impact;
2. **Response**, including initial warnings, notifications, instructions, and follow up communication during the course of a crisis; and
3. **Recovery** – the process of clean-up and rebuilding, physically, psychologically, and socially.

Before examining public communication requirements and best practice principles in each of these three stages, it is necessary to recognise that the nature of a crisis, emergency, or disaster also has a significant impact on approaches adopted in public communication.

Causation and categorisation of crises

The Institute for Crisis Management identifies four categories of crisis as follows:

- Acts of God;
- Mechanical/technical/technological failures;
- Human error; and
- Management decisions or indecision.⁴

However, this is seen as broad. Organisations such as the International Red Cross have developed multi-layered taxonomies of crises, emergencies and disasters. Within communication literature, specialist crisis researcher Otto Lerbinger identifies seven types of crises as follows:

1. *Natural* crises such as earthquakes, tornados, hurricanes, tsunamis, floods, and accidentally started fires that are often described as ‘acts of God’;
2. *Technological* failures such as the nuclear power plant disaster at Chernobyl, the US Challenger space craft explosion, and the BP Deepwater Horizon oil rig disaster, as well as other mechanical and technical failures such as power black-outs, telecommunications network crashes, and shipping collisions, groundings or sinkings;
3. *Confrontation* crises such as activist attacks, union strikes, or consumer black-bans;
4. Crises caused by *malevolence* such as terrorism or sabotage enacted against an organisation or society;
5. Crises caused by *systemic issues* such as management values and ethics that lead to unsafe practices (e.g., ‘cutting corners’ to save costs);
6. Crises caused by *deception* such as cover-ups of risks or faults; and
7. Crises caused by *management misconduct* such as fraud, sexual harassment, insider trading, or failure to adhere to standards and regulations.⁵

Cause is a significant factor in determining crisis communication strategy, and public relations scholars have used typologies such as those of Lerbinger to develop *Situational Crisis Communication Theory* (SCCT)⁶. In the first four categories of crisis identified by Lerbinger, the central organisation or organisations involved are not at fault. In such crises, there is often a degree of sympathy for the organisation/s, or at least neutrality. The fifth, sixth and seventh types of crisis identified by Lerbinger are caused by the central organisation and, in these types of crisis, there is little or no public or political sympathy for the organisation and often anger and outrage directed towards it.

However, irrespective of the cause of a crisis, **a key factor in crisis communication is that preparedness, response, and recovery initiatives are far more important.** Even organisations at fault in causing a crisis can redeem themselves through swift appropriate action to ameliorate negative impacts. Conversely, organisations that are not responsible for a crisis can be seen to fail in their public and social responsibilities if they do not respond appropriately.

Depending on preparedness and response, **the nature and perceptions of a crisis can shift from one type to another.** For instance, a crisis originally caused by a natural disaster (Act of God) such as an earthquake, flood or bushfire can evolve and escalate into one involving

human error, mismanagement, or even deception and cover-up if an organisation does not respond appropriately. Similarly, a technological failure that is initially seen as inadvertent and unavoidable can transition into a crisis of human error or systemic failure if pre-existing or related problems are subsequently revealed (e.g., a lack of maintenance or safety procedures, or a lack of community awareness and knowledge).

Preparation – responsibility before a crisis occurs

All crisis communication research and best practice literature advocates that **crisis communication should begin long before a crisis occurs**. Experienced crisis communication practitioners identify a number of key steps required for effective crisis communication that incorporate preliminary activities, as well as key stages during and after a crisis as follows:

1. **Scenario development** – identification of potential risks and their respective probability and potential damage. This involves hypothesising situations or events that could happen. Communication specialists recommend that every organisation operating in high-risk fields such as aviation, mining, shipping, transport, bushfire control, medical treatment, etc., carry out scenario development to identify all possible eventualities as the basis for the next stage of planning;
2. **Preparation** – this is a major phase involving many important activities. These typically include:
 - Establishing a **crisis team** – that is, all the key people required in a crisis, such as technical experts, legal advisers, and communication specialists;
 - Developing a list of key actions and persons responsible for each scenario identified as having moderate to high probability and high risk and recording these, as well as office and after hours contact details for the crisis team, in a **crisis plan**;
 - Identifying whether a central **crisis centre** is required to bring together the crisis team to work collaboratively during the crisis. Even though electronic communications means that key executives can operate remotely, quick decision making, consistency of communication, and an integrated approach often requires key specialists to be co-located (e.g., technical, legal, communication, etc.);
 - Identifying whether a **Public Information Centre** (PIC) is required – whether physical (e.g., an information booth, office, or noticeboard), electronic (e.g., a Web site), or both;⁷
 - Identifying whether a **Media Information Centre** (MIC) is required, which may be physical (e.g., an office of field location), electronic (e.g., a Web site), or both;⁸
 - Preparing **information** materials such as fact sheets relating to key facilities, risks, and procedures identified in scenario development and planning and distributing these to key stakeholders, or at least having them ready for use when required. There is rarely time to write and produce information materials when a crisis occurs;
 - Identifying key **spokespersons**, both for media communication and public meetings;
 - Providing **media training** to all staff who might be called upon to face media;
 - Equipping key staff responsible for communication with **equipment** such as extra batteries for mobile phone, satellite phones, notebook computers with wireless communications, etc. for mobile and remote communications when required;
 - Even **rehearsing** crisis management. A number of organisations periodically conduct a training exercise by simulating a crisis to test their response and systems;

Contemporary approaches to crises and disasters focus on building individual and **community resilience**. A key element of creating resilience is early communication to create community awareness and knowledge (e.g., of risks, what to do in an emergency, etc.). For instance, the Council of Australian Governments *National Strategy for Disaster Resilience* states:

Information on disaster risk should be communicated in a manner appropriate to its audiences, and should consider the different needs, interests and technologies used within communities. Knowledge, innovation and education can enhance a culture of resilience at all levels of the community.⁹

3. **Monitoring** – early warning systems are essential to enable quick response in a crisis. As well as mass media monitoring, internal notification procedures are required for various scenarios. It is increasingly important to include social media monitoring, as incidents and events are likely to be reported first via Twitter, for instance, rather than traditional media. Also, public concerns are often expressed in social media;
4. **Networking/bridge-building** – this involves establishing relationships with relevant groups such as regulators, unions, and community groups, as well as independent experts who may be able to support and assist the organisation in a crisis;
5. **Focussing** – when a crisis occurs there are multiple competing priorities. In reality, in major crises management personnel are run off their feet and may have to work around the clock. A key step is identifying the most urgent and important matters to address and focussing on those. In the heat of a crisis, operational requirements often relegate communication down the list of required tasks. But communication is universally recognised as essential in crises, as anxiety will grow and spread among key publics, media will speculate, markets will nose-dive, regulators will become concerned, and the immediate direct effects of the crisis will multiply and spread;
6. **Implementing the crisis plan** in two key stages:
 - *Damage control* including quick response operationally and publicly, with spokespersons being open, frank and honest with media and in public statements issued to stakeholders such as on the organisation’s Web site (see ‘Five principles of crisis communication’ in the next section); and then implementing
 - *Proactive management* to take the initiative and rectify whatever has gone wrong;
7. **Evaluation** – it is important to conduct research to identify the effectiveness of communication and learn from experiences to improve future practice;
8. **Reputation rebuilding** – based on post-crisis research, reputation rebuilding as well as physical recovery is usually required. One study shows that 27% of organisations are not able to recover from a crisis.¹⁰ However, this is mainly caused by lack of preparation and a lack of crisis communication.

Significantly, the first four of these stages should occur pre-crisis. If the first four stages above are not implemented well, it can be assumed that an organisation is ill-prepared.

Response to crises

Eminent US crisis communication specialist Timothy Coombs who developed *Situational Crisis Communication Theory* gives a simple ‘golden rule’ for all communication once a crisis occurs, saying “Be quick, be consistent, and be open”.¹¹

In a contemporary text book summarising best practice public relations, Coombs adds:

Being quick is the most commonly recited lesson ... crisis experts preach the need to get the word out within the first hour of the crisis ... getting the word out means letting stakeholders ...know what information the organisation in crisis has about the crisis event.

Drawing on a number of crisis communication research studies, Coombs explains: “when a crisis hits, an information vacuum forms. Stakeholders, led by the mass media, do not know what happened but want to know what happened”. He says the objective of crisis communication is to “fill the information vacuum with accurate information”. He adds: “the organisation should tell stakeholders everything they know about the crisis as soon as the organisation receives the information”.¹²

Similarly, Kathleen Fearn-Banks says that crises create a demand for information among the media and the public, particularly within affected communities. This demand for information extends well beyond the first hour or few hours of a crisis, of course. Crisis communication best practice identifies the need for consistent ongoing program of communication, as well as operational activities.¹³

Such an approach is sometimes opposed by legal advisers who seek to minimise the risk of regulator or civil legal action by avoiding any statements implying fault or even admitting to the severity of a crisis. However, it is useful to note what does *not* work effectively in a crisis according to communication research. As summarised in Table 1, silence is the most damaging approach in terms of public perception and reputation. Other approaches such as denial, excuses, and justification are effective *if* supported by credible evidence, but also result in negative public perceptions and reputational damage if not justified.

Approach to crisis	Public attitude at the time	Future public intention
Silence	Very negative	Very unlikely to trust or do business/deal with again
Denial	Not impressed. Usually not believed	Unlikely to trust or do business/deal with again
Excuses	Deflects blame, but effective only if justified	Low likelihood to trust or do business/deal with again
Justification	Effective if credible	Neutral if credible
Confession/apology and Rectification	Impressed, particularly if includes rectification	Likely to trust and do business/deal with again

Table 1. Approaches in a crisis and public reactions.¹⁴

When an organisation finds itself embroiled in a crisis, whether through fault on its own part or not, public relations and communication best practice requires identification of the full range of stakeholders who may be affected – not only the organisation’s own interests and those of its direct connections such as employees and customers (see Figure 1).

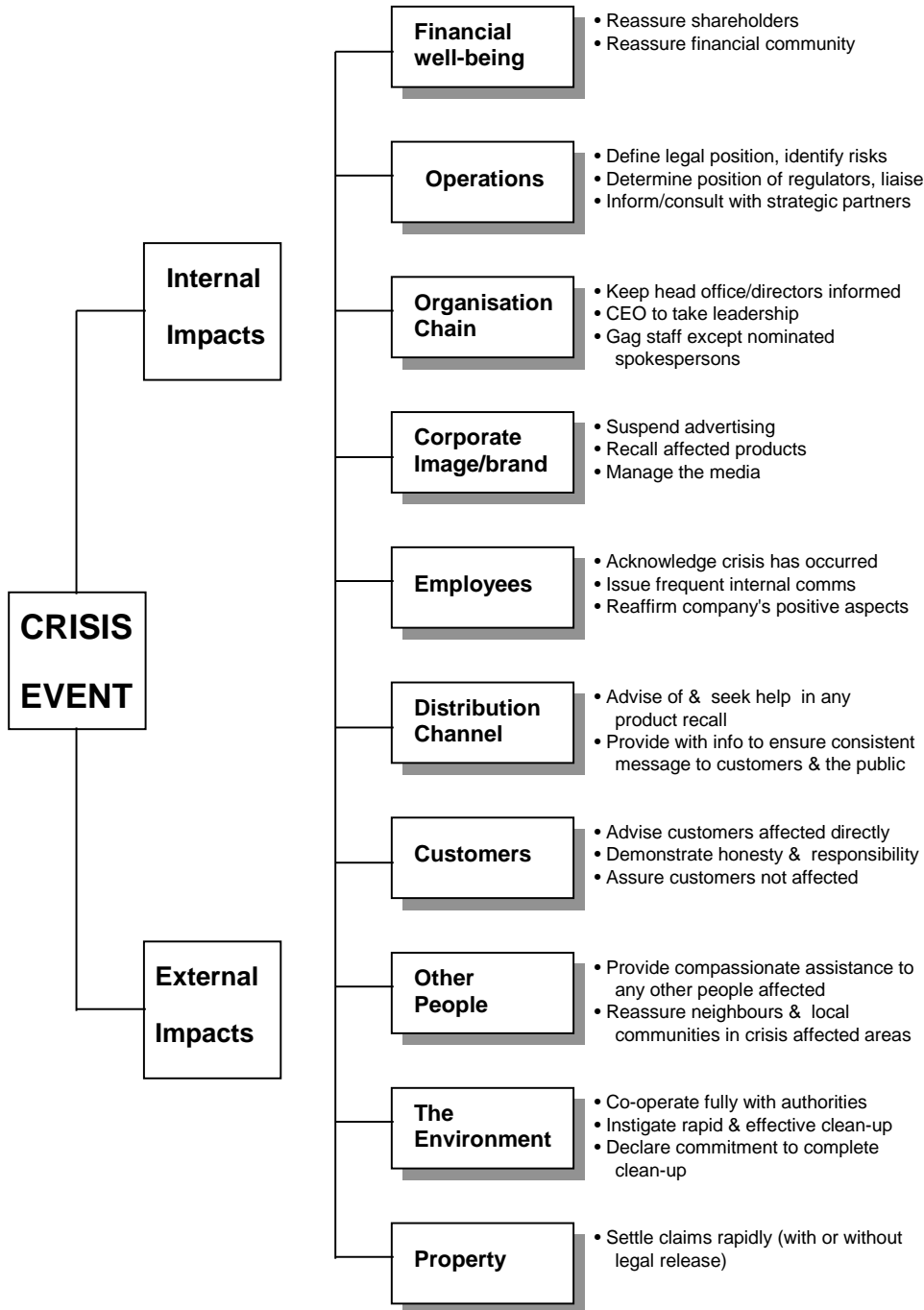


Figure 1. 10 potential impacts of a crisis and an overview of crisis communication strategies.¹⁵

Five strategies for responding to a crisis have been identified by scholars such as Fearn-Banks and Coombs based on communication research and scholarship as follows:

1. **Apologia** – this approach, derived from the classical Greek term and practice, is not simply apology and it does not imply admitting guilt or liability. In the legal system of classical Greece *kategoria* involved the prosecution delivering details of charges or complaints, which was then followed by the *apologia* in which a defendant offered a defence through explanation or rebuttal. Three main approaches of *apologia* are (a) *redefinition* (redefining the crisis by explaining and re-contextualising it); (b) *disassociation* (e.g., showing that it was caused by others or factors beyond the defendant's control, which must be supported with evidence and be convincing); or (c) *conciliation* which can involve an apology, but in the very least requires concern for the communities affected and action to make reparation.¹⁶ If an organisation is at fault, it is highly recommended by crisis communication experts that it does not attempt redefinition or disassociation. Former TV reporter turned crisis communication consultant Jeff Crilley says: "Honesty really is the best policy. If you mess up, fess up";¹⁷
2. **Decision theory** – this not only advocates that quick decision-making and decisiveness are important aspects of communication when and after a crisis occurs, but this body of knowledge proposes working through each possible action in advance to identify those that will have most benefit and least risk to all affected parties. This should be undertaken as part of scenario development, which is a stage of crisis preparation – a largely overlooked element of crisis management and crisis communication – as well as during crises and, ideally, involves **consultation** with key stakeholders when possible;
3. **Diffusion theory** – this draws on Everett Rogers' *diffusion of innovations* theory that identifies how change filters down in society from influencers and early 'knowers' to others.¹⁸ Diffusion draws attention to the importance of getting information out to key influencers, such as mass media, community organisations and leaders, and prominent social media users (e.g., bloggers, microbloggers, and social networkers with a large numbers of subscribers, followers, and friends). Even when all those potentially affected cannot be reached directly, information can be disseminated through a diffusion approach;
4. **Excellence theory of public relations** – best practice PR theory advocates not only top-down one-way dissemination of information, but calls for *two-way* engagement through *dialogue* and discussion. Furthermore, Excellence theory of public relations advocates that *relationships* should be developed and maintained with key stakeholders.¹⁹ These relationships provide an effective conduit during a crisis, but they must be established in advance before a crisis occurs. This further draws attention to the importance of preparation in relation to crises;
5. **Image restoration** – even when effective crisis management has been implemented, organisations causing a crisis and organisations that do not implement effective crisis communication that meets public expectations suffer some residual damage and need to take action to rebuild their reputation and key relationships.

William Benoit, who developed *image restoration theory*²⁰, outlined a range of strategies for dealing with crisis, noting some that are effective and some that are not. He noted five approaches, with similarities to the research findings summarised in Table 1, as follows:

- *Denial*, including outright denial and shifting the blame (only effective if demonstrably true, but even then stakeholders expect the organisation to help implement corrective action);
- *Evading responsibility* (rarely effective, even if the organisation is blameless);
- *Reducing offensiveness* by trying to make the crisis look better or not as bad as some suggest (can backfire even if justified and causes outrage if unjustified);
- *Corrective action* (the most assuring response for all stakeholders concerned);
- *Mortification*, including expressing concern, apologising, and admitting guilt if applicable (some level is essential – e.g., at least expression of concern – and, while legal advisers caution against any admissions, stakeholders expect an apology if an organisation is at fault and signs of social responsibility).²¹

Five principles of crisis communication

While repeating some of the previously outlined ‘golden rules’ and best practices, the research literature identifies five over-riding principles of crisis communication:

1. **Containment** – the first most pressing challenge is containing a crisis. This is usually well understood in physical terms, such capping a leaking oil well, restricting a spill, or putting out a fire. However, emotional containment is also important. This involves defining the scope and nature of the crisis openly and honestly, but in a circumscribed way. For instance, if residents in some areas are unaffected, distributing this information, supported by credible evidence, will reduce anxiety and concern;
2. **Openness** – be open, honest, and frank. Crisis experts advise that avoiding media and public comment is a recipe for added disaster. Media will speculate, regulators will become concerned, and publics will lose faith and trust. Also, lying or even under-stating the situation will come back to haunt an organisation. Such practices will lead to loss of trust among stakeholders and may lead to inquiries and legal action;
3. **Responsibility** – acting responsibly and taking responsibility for resolving a crisis is different to accepting legal liability for it. Lawyers often recommend ‘no comment’ in a crisis. However, public reaction to silence or carefully guarded statements is usually very negative, as shown in research summarised in Table 1. Spokespersons can express regret and concern, and even apologise for damage or inconvenience, without accepting legal liability (see point 4);
4. **Compassion or empathy** – in any crisis, an essential communication objective is to show compassion and empathy. Many organisations confuse concern and compassion with liability – or simply forget to be human in their concentration on operational requirements. When a Singapore Airlines jet crashed into equipment on a closed runway in Taiwan in 2000 killing more than 80 people, the airline which had an impressive safety record, did not want to admit liability until a full hearing had been conducted. However, this did not stop management from immediately expressing their deep sorrow, concern,

and extending their sympathy to the families and relatives of those killed and injured. Saying the organisation is sorry for damage that has occurred does not imply or accept legal liability. Not showing compassion and concern exacerbates public fears and often provokes anger and resentment;

5. **Action** – most of all, people want to know that an organisation is taking action to resolve and ensure recovery from a crisis. At every opportunity in a crisis, the organisation or organisations involved should advise publics and stakeholders of actions being taken. Once the bad news is known, public interest shifts to what is being done about it and the important recovery and rebuilding phase of a crisis.²²

Recovery and rebuilding

The final phase of managing crises and disasters is recovery and rebuilding. There are important communication imperatives in this stage as well as operational requirements.

Recovery and rebuilding pertain to more than physical property and infrastructure. Crisis communication (often referred to as *information management* in emergency management) is not only about providing affected individuals and communities with information about the availability of recovery services and plans, but is also “the basis for important social processes such as bonding between individuals, groups and communities”.²³

Summary

It can be summarised that public communication is vital at a number of levels during a crisis, emergency, or disaster, including to:

1. Reduce physical risks to people and property by providing pertinent information such as risk education, safety advice, and instructions in relation to preparation, evacuation, or relocation **in advance** of a crisis, emergency or disaster;
2. Reduce physical risks to people and property by quickly providing pertinent information such as safety advice, and instructions in relation to preparation, evacuation, or relocation **during a crisis**, emergency or disaster;
3. Reduce emotional and psychological harm and contribute to citizens’ and communities’ wellbeing by providing **regular updates** and assurances in relation to action being taken and progress in terms of containment of a crisis, emergency or disaster;
4. Aid in crisis/emergency management efforts by **engaging citizens and communities** collaboratively in providing information to authorities and passing on information to families, friends, and neighbours;
5. Aid in **recovery and rebuilding** – physical and psychological – by communicating the details of action plans, galvanising effort, and establishing/re-establishing a sense of community.

A major report of the US Department of Homeland Security titled *Understanding Risk Communication Theory: A Guide for Emergency Managers and Communicators* summarises the three stages of a crisis or emergency and key practices as shown in Figure 2.

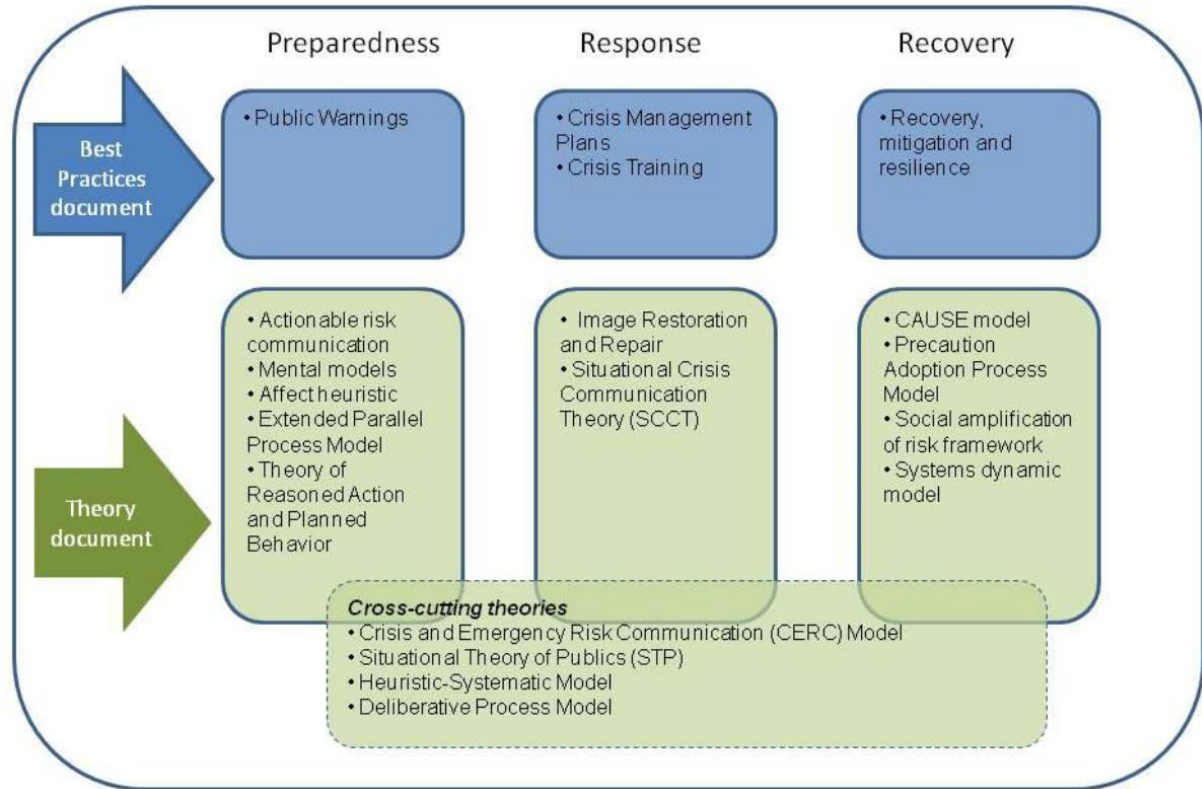


Figure 2. The three stages and best practices theories, concepts and practices of crisis and emergency communication.²⁴

Information on crisis communication and the principles outlined here are widely applied in the mining industry. For instance, the following crisis communication templates and guidelines are publicly available:

- The 100-page [Crisis Communications Template](#) of the National Mining Association of America;
- [Crisis Management Planning Reference Guide](#) of the Mining Association of Canada.

What case studies tell us

Case studies illustrate and inform these theories, principles, and golden rules in terms of both best practice and worst practice and their implications. The preceding literature is informed by and refers to numerous ‘classic’ crisis case studies such as the nuclear disasters at Chernobyl in the former USSR and Three Mile Island in the US; the Bhopal gas fire tragedy in India; the Tylenol poisoning case; The Arnotts biscuits tampering and product recall in Australia; Hurricane Katrina; and numerous others.

The following case studies are briefly summarised in terms of how they inform good practice in communication in a contemporary context, as well as for their capacity to provide lessons in relation to failed communication. The cases summarised are not restricted to mining and/or fires. They have been selected to illustrate a range of points about the role and importance of public communication.

James Hardie Industries and asbestos

James Hardie Industries faced a crisis in the early 2000s based, not on a single incident, but on an issue that emerged over time – the use of asbestos in building materials. What is salutary about this case in terms of crisis communication is that the company did not face its most severe criticism for using asbestos; it faced severe criticism and legal action in relation to its communication in connection with the compensation fund established to support victims of asbestos.

During the course of addressing the growing incidence of asbestos-related diseases in the community, James Hardie Industries established the Medical Research and Compensation Foundation in 2001 and announced that it would contribute funds to meet estimated costs of compensation payments to victims. This was initially seen as appropriate reparation and ‘facing up’ to the crisis. On 16 February 2001 James Hardie Industries issued a media release which said that the Medical Research and Compensation Foundation was “fully funded” to meet its compensation liabilities.

However, in 2003, *60 Minutes* alleged that the compensation fund was severely underfunded to meet expected payouts, with around 7,000 Australians having died from asbestos-related diseases by 2002 and forecasts of 60,000 deaths by 2020.

Around the same time, James Hardie announced that it was moving its head office from Australia to Holland where it would be under Dutch rather than Australian jurisdiction. A range of corporate and financial reasons were presented to justify this decision. However, James Hardie was accused of using “spin” to disguise its attempt to escape or minimise its legal responsibilities in Australia.²⁵ The company has since accepted responsibility and complied with legal requirements in relation to asbestos victims, but decisions such as its plan to move its head office to the Netherlands created what is called **the “Velcro effect”** in crises – actions that attract additional scrutiny and cause criticism to stick.

A Special Commission of Inquiry established by the NSW Government, known as The Jackson Inquiry, subsequently found that James Hardie Industries “knowingly under-funded a compensation trust ... to limit the assets available to compensate victims of asbestos products”.²⁶ The foundation was estimated to be under-funded by approximately \$1.5 billion. Also, seven directors and three senior executives of the company, including the former CEO and chief financial officer, were found by the High Court of Australia to have breached their statutory obligations under the Corporations Act by knowingly approving the 2001 media release that contained misleading and inaccurate information about compensation for asbestos victims.²⁷

This case study illustrates a worst case scenario in crisis communication in which a company:

1. Was not open or truthful to the extent of being secretive;
2. Was not adequately prepared;
3. Sought to ‘lay low’ during the crisis that occurred; and
4. Sought to cover up its failings through misinformation and lies.

While different to the Hazelwood mine fire case in many ways, there are some parallels in the first three points above, as discussed in Section 4.

BP Deep Horizon oil rig explosion and fire

On 20 April 2010, an explosion on the *Deepwater Horizon* deep sea oil drilling rig in the Gulf of Mexico operated on behalf of BP killed 11 platform workers, injured 17 others, and resulted in an sea floor ‘oil gusher’ that leaked almost five million barrels (or 840 million litres) of crude oil into the sea in the three months before it was capped on 19 September 2010. The spill was the largest accidental marine oil spill in the history of the petroleum industry and caused massive damage to wildlife, sea life, and the environment.

BP has publicly admitted that it made major mistakes that contributed to the disaster.²⁸ Beyond operational mistakes that subsequent inquiries found contributed to the accident, the CEO of BP at the time, Tony Hayward, made errors of judgment that conveyed a lack of concern and lack of responsibility to the public. For instance, during the height of the disaster in June 2010, Hayward flew to the UK to attend a yacht race on the Isle of Wight.²⁹

BP mounted an intense operation to cap the oil gusher and reportedly worked cooperatively with various authorities and environmental agencies. But the company failed to adequately communicate with communities living on neighbouring shorelines and with the global community which tuned in to the disaster. US government agencies also came in for criticism over lack of standards and scrutiny of deep sea oil drilling

BP’s stock price plunged more than 8% on the American Stock Exchange and President Obama subsequently banned offshore deep sea drilling, which further damaged BP. The crisis also further damaged the reputation of and public trust in the oil industry and negatively impacted employee morale and BP’s capacity to be an employer of choice. Lack of preparation and lack of sensitivity to public concern were identified as key contributors, along with lack of public communication with affected communities.



Figure 3. Fire tenders combat the burning Deep Horizon deep sea oil rig in the Gulf of Mexico in 2010.

Canberra bushfires 2003

The Canberra bushfires of 2003 and their aftermath provide a positive example of crisis communication and particularly demonstrate the communication role of government departments and agencies. On 18 January 2003, a firestorm swept through several residential suburbs of Canberra destroying 488 homes and costing the lives of four people as well as causing hundreds of injuries. More than 150,000 hectares of pine plantations, rural leases and nature reserve were destroyed, 5,000 residents were evacuated to emergency centres directly after the fire, 30,000 ACT residents were without power – many for up to a week – and the two major water suppliers and the sewerage treatment plant were non-operational. The psychological damage was inestimable and potentially could linger for years.³⁰

To a large extent, the psychological damage to people affected and to communities was dependent on communication during and immediately following the devastating fire. In this case, the actions of the Australian Capital Territory (ACT) Government are held up as an exemplar of crisis communication in communication practice studies and text books.

Because the fire damage to homes in Canberra occurred so quickly (in one day), this case study focusses on post-event crisis communication, noting that recovery and rebuilding phase (physical and psychological) is a very important part of managing crises.

Within six days of the firestorm, the ACT Bushfire Recovery Taskforce was established and, on the same day (24 January 2011), an ACT Bushfire Recovery Centre was set up at Lyons Primary School. Also a Community and Expert Reference Group was established on 3 February, specifically for engaging with the affected individuals and communities. These three bodies, supported by the ACT Government's Communications and Community Relations Group (CCRG), were responsible for a wide range of communication activities over the following months. An *ACT Bushfire Recovery Taskforce Action Plan* was put into action within two weeks of the fire and communication was high on the list of priorities. In this, the role of the CCRG was specified as:

Public information and media relations, coordination of intra-government communications for the Taskforce secretariat, management of the formal community business expert consultative process through the Community and Expert Reference Group.³¹

A key priority of the taskforce action plan was “the provision of up-to-date, relevant and useful information to assist with the recovery process”. A significant comment about communication in the action plan was:

The aim is an effective (not necessarily elaborate, expansive or ‘slick’) communications strategy which gets necessary information in a timely way to stakeholders and to the community. This is therefore to be seen as an integral operational part of the recovery effort, not public relations for its own sake or a mechanism to put a ‘spin’ on issues. The Taskforce will contribute to wider communications strategies to reinforce community morale, spirit and pride in the ACT's response to the fires and confidence in the future.³²

This illustrates the centrality of public communication and its integration as an ‘operational’ responsibility in this commended crisis communication program. The ACT Government, through its specially formed bushfire taskforce and other units, used:

- Regular media briefings and media statements;
- A weekly *Community Update* newsletter;
- Public information newspaper advertisements including full-page ads in local community and suburban newspapers;
- A *Community Billboard* radio community service announcement series;
- The *Canberra Connect* Web site as a central point for all ACT Government services; and
- Community meetings and events.

A key feature of this case study is that the key communicators from various authorities worked out of a single office during the peak period of the crisis, affording coordination and consistency.

A further best practice feature of the ACT Government’s handling of the 2003 bushfire was that it conducted evaluation research through community focus groups to identify what strategies worked and which did not and incorporated findings into its crisis communication planning for the future.

The January 2011 Queensland floods

A case study that demonstrates the growing use of social media for crisis communication, as well as the key role of government departments and agencies in crisis communication, is presented in analysis of 2011 floods in South-East Queensland that peaked on 13 January 2011 when the Brisbane River inundated around 30,000 homes. While floods affected large parts of Queensland during December 2010 and January 2011, the devastating flood events in Toowoomba, the Lockyer Valley, and Brisbane provide a focal point for identifying crisis communication in action in a contemporary context.

The Twitter hashtag #qldfloods very quickly became a central site for information on the rapidly unfolding events around the state. A study of the use of social media during the 2011 South-East Queensland floods found 35,000 tweets containing the #qldfloods hashtag posted in the seven-day period 10–16 January. Significantly, key organisations such as the Queensland Police Service, which has its own Twitter handle ([@QPSMedia](#)), quickly adopted the #qldfloods hashtag for its own tweeting and the study found that @QPSMedia was the leading voice on social media in the period. In fact, all of the leading Twitter accounts were emergency services, media organisations, and their employees.

When the “inland tsunami” hit the Lockyer Valley below Toowoomba around midday on 11 January, 1,100 tweets an hour were being posted on Twitter. These included messages about the approaching floodwaters (valuable warnings), details of the location of high ground, directions to escape the flood path, and the location of stranded people to guide emergency services. On 12 January, a total of 11,600 tweets were posted to the #qldfloods hashtag from almost 7,000 Twitter users.

An analysis of government authorities’ use of social media during the 2011 Queensland floods concluded that Twitter offered “exceptionally flat and flexible communicative structures” that allowed the public to ‘listen in’ to institutions, news agencies and other individuals, as well as allowing “institutions, emergency services and journalists to listen in to the experiences of locals in the midst of the crisis”.³³ Furthermore, they could do so from mobile phones, even during power outages, and when isolated from their home and computer equipment.

A further benefit of social media such as Twitter is that it allows **links** to be included in short tweets. This enables messages to be sent quickly, with the online address of longer important documents such as emergency plans, emergency service statements, details of services, and so on, embedded in the message. For instance, the analysis of social media use in the Queensland floods found that 30–40 per cent of all #qldfloods tweets contained links to further online information ranging from the address of official Web sites to media news reports and eyewitness photos posted online.

As attention turned from emergency to recovery, research showed “a pronounced long tail” of discussion in social media, with the 25 most visible Twitter accounts, including @QPSMedia (Queensland Police) continuing to distribute information.

The Queensland Police attracted positive comment online and in the media in relation to its communication during the 2011 floods and an independent study reported that the police were successful in reaching key target audiences during the crisis.³⁴

The February 2011 Christchurch earthquake

Social media, particularly Twitter, were again a key channel of communication during and immediately following the earthquake that struck Christchurch in New Zealand just before 1 am on 22 February 2011 causing 185 fatalities, 6,659 injuries, and NZ\$15 billion in damage. In the first few hours after the earthquake, 7,500 tweets per hour were posted – more than one per second.

Following a previous earthquake that affected Christchurch in September 2010, the Twitter hashtag #eqnz had been established and this was able to quickly become a central site for online communication – another example of the importance of preparation for crisis communication.

The most active single Twitter account during the earthquake was the official account of the New Zealand government's Canterbury Earthquake Authority (CERA), which used the Twitter handle @CEQgovtnz at the time and now tweets as @CERAgovtnz. CERA was responsible for almost 2,500 tweets during the first two weeks of the rescue and recovery – around 180 tweets a day.

The Christchurch City Council (@ChristchurchCC) was also very active in online communication with residents. In addition, as they did in the Queensland floods, media organisations played a key role online as well as on the broadcast air waves. Radio station [NewstalkZB](#) and *The New Zealand Herald* (@NZHerald) posted regular information online and a number of volunteer sites operated, including [@eqnz live](#) which maintained a crowdsourced map of the Christchurch area reporting damage and danger spots and [@operationsSAFE](#) which posted guidelines and advice for parents of traumatised children.

These organisations also used traditional media channels, particularly radio and television which could broadcast hourly bulletins and 'live', as well as public meetings, simple information sheets and leaflets, Web pages, and media news releases. However, an independent study reported that social media made a significant contribution to public communication during the Christchurch earthquake crisis, as well as the Queensland floods, affording two-way communication between authorities and citizens.³⁵ Also, social media enable citizen-to-citizen (peer-to-peer) communication, which amplifies official communications and contributes to self-help, agency, and community.

Director of the International Association of Emergency Management, Craig Fugate, observed in a recent issues paper:

As social media becomes [sic] more a part of our daily lives, people are turning to it [sic] during emergencies as well. We need to utilise these tools, to the best of our abilities, **to engage and inform the public, because no matter how much ... officials do, we will only be successful if the public is brought in as part of the team.**³⁶

The Boston Marathon bombing 2013

The 2013 Boston Marathon bombing provided an international example of how government departments and agencies have adapted to use social media in crisis situations. Patricia Swann, Associate Professor of Public Relations and Dean of the School of Business and Justice Studies at Utica College, New York, conducted an independent analysis of the public communication of the Boston Police Department immediately following the 2013 Boston Marathon bombing which killed three people and injured 264.³⁷ Swan is also author of *Cases in Public Relations Management*. Her report, summarised here, is informative.

For a start, the Boston Police Department had a crisis communication plan in place. Furthermore, under the director of Bureau Chief of Public Information, Cheryl Fiandaca, the Boston PD's crisis communication plan included provision for the use of social media. This proved to be fortuitous.

The BPD maintains a blog (<http://bpdnews.com/blog>), which is a popular medium for public information with around 30,000 views a month. However, heavy traffic immediately following the Boston Marathon bombing on 15 April 2013 caused it and the department's Web site to crash. Recognising that traditional media news releases and even news conferences would not get information out quickly enough to meet demand, Fiandaca turned to Twitter. During the first 90 minutes following the explosion of two bombs, she tweeted from the [@Boston Police](#)³⁸ 'handle' 10 times, including "Boston Police confirming explosion at marathon finish line with injuries" and "BPD asking people not to congregate in large crowds."

The BPD posted 148 tweets during the five-day hunt for the bomber that ended with the capture of suspect Dzhokhar Tsarnaev. Before the bombing, the Boston PD's Twitter account had 54,000 followers. According to [Mashable](#), this grew to more than 330,000 followers following the bombing and department's Twitter communication reached 49 million people in five days. The social media site had 276,000 followers as at 12 May 2014 and the Boston PD had posted 8,556 tweets. The Boston PD also has a [Facebook](#) page, [Twitter](#) feed, and [YouTube](#) and [Pinterest](#) accounts.

Fiandaca says that Twitter proved to be the quickest and most reliable way to communicate with Boston residents, marathon runners, friends and family members, the news media, BPD employees and other law enforcement agencies. Journalists were following the Boston PD on Twitter and quoting its 'tweets' on live radio and TV broadcasts.

Behind the scenes, the Boston PD had established lines of communication with other key government agencies including the FBI and a number of BPD staff were kept busy checking and double-checking information. Not everything went smoothly or even accurately. When the Boston PD announced a news conference via Twitter, the mistake was quickly corrected. Fast correction of misinformation is one of the benefits of social media in a crisis, according to Fiandaca. For instance, when several news sources, including Associated Press and CNN, erroneously reported that a suspect was in custody, the Boston PD tweeted to set the record straight.

The BPD also tweeted images, such as photos of the suspects, which thousands of followers retweeted to their social networks and which assisted in the capture.

The Boston PD does not have a large staff to maintain its public communication. During the 2013 Boston bombing crisis, just three police officers and three civilians staff in its news bureau handled communication. However, all had received training in a range of communication activities including writing Facebook and Twitter posts as well as producing traditional media and public communication statements.

On Friday, 19 April 2013 when police were closing in on Dzhokhar Tsarnaev, the Boston PD communication staff were careful not to give away the location of police and used social media to appeal to media and residents not to broadcast or post photos, at the same time as keeping the community informed. For instance, Boston PD tweets included:

There is an active incident ongoing in Watertown. Residents in that area are advised to remain in their homes. More details when available.

#CommunityAlert: Door-to-door search 4 suspect in Watertown continues. Uniformed officers searching. Community consent critical.

#MediaAlert: WARNING: Do Not Compromise Officer Safety by Broadcasting Tactical Positions of Homes Being Searched.

Heavy police presence in area of Franklin St in Watertown. Residents remain inside.

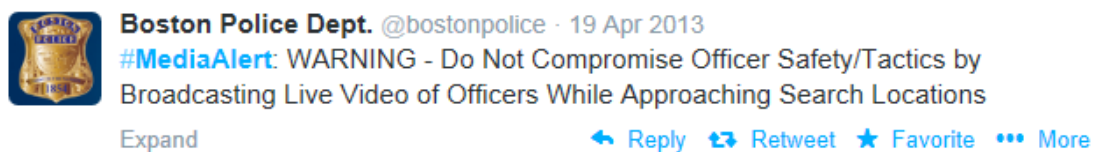


Figure 4. Sample tweet by the Boston Police Department during the hunt for the Boston Marathon bomber in April 2013.

Soon after, Boston PD tweeted the news “Suspect in custody. Officers sweeping the area. Stand by for further info”, and at 8.58 pm Eastern US time, Fiandaca tweeted:

CAPTURED!!! The hunt is over. The search is done. The terror is over. And justice has won. Suspect is in custody.

This was retweeted 144,000 times. Retweeting is an important feature of microblogging on sites such as Twitter, as this redistributes tweets to the followers of an organisation’s followers, and then to their followers, providing large reach through this ‘network effect’.

Immediately following his capture, Fiandaca posted the final crisis tweet thanking the department’s many supporters: “The Boston Police appreciates the love and support of the USA. GOD BLESS AMERICA. BOSTON STRONG!”

Fiandaca says that Twitter was a valuable tool for managing the information and helped the Boston PD “connect directly with the community.” She said the Boston PD public information department responded to all requests as quickly as possible and its tweets as well as retweets by its followers “built a cohesive community, reduced panic, engaged the public in the search for suspects, and kept people safe”.³⁹

Malaysia Airlines Flight MH370

While it is too early to comment in any detail on the handling of crisis communication in relation to Malaysia Airlines Flight MH370 which disappeared on 8 March 2014 less than one hour after take-off from Kuala Lumpur International Airport bound for Beijing carrying 12 Malaysian crew members and 227 passengers from 14 nations, evidence is emerging that lack of communication by the company has caused severe stress to affected people and caused it reputational damage.

While search authorities have been as forthcoming as possible with information about the search, the airline has been criticised for providing too little information to relatives of passengers and for exhibiting insufficient concern. In its first statement about the disappearance at 7.30 am Malaysia time on 8 March 2014, Malaysia Airlines issued just four paragraphs beginning:

Sepang, 8 March 2014: Malaysia Airlines confirms that flight MH370 has lost contact with Subang Air Traffic Control at 2.40am, today (8 March 2014).⁴⁰

Later the same day, the company issued a further statement:

Saturday, March 08, 10:30 AM MYT +0800 Malaysia Airlines MH370 Flight Incident - 3rd Media Statement

Ladies and Gentlemen, we are deeply saddened this morning with the news on MH370.

Malaysia Airlines confirms that flight MH370 had lost contact with Subang Air Traffic Control at 2.40am, today. There has been speculation that the aircraft has landed at Nanming. We are working to verify the authenticity of the report and others.⁴¹

Malaysia Airlines undertook a number of crisis management initiatives including deployment of 112 care givers by 12 March to counsel the families of passengers, it established a Family Support Centre, and provided accommodation for family members for several weeks during the search. However, the words “we are deeply saddened” in the statement on 8 March comprised the first and only public expression of concern during the first five days following the aircraft’s disappearance.

A more specific statement of concern was issued by the CEO of Malaysia Airlines, Ahmad Jauhari Yahya, on 25 April 2014 – seven weeks after the aircraft disappearance.⁴² However, by then tensions were running high and a group of 200 relatives of passengers confronted Malaysia Airlines staff and then contacted the Malaysian Embassy demanding information. The incident is reported on the Malaysia Airlines Web site in factual terms – albeit with poor grammar and without any expression of concern or empathy as follows.

Friday, April 25, 07:40 PM MYT +0800 Malaysia Airlines MH370 Flight Incident - Media Statement 28

Subang, 25 April 2014: Malaysia Airlines confirms that its staff were held at the Lido Hotel ballroom in Beijing by the family members of MH370 as the families expressed dissatisfaction in obtaining details of the missing aircraft on 24 April 2014 at 3 pm.

The 200 over family members requested for the presence of a Malaysian official as only Malaysian Airline staff were present at the briefing session.

The 10 airline staff then were told to wait at the ballroom whilst a group of 60 family members left for the Malaysian Embassy in an attempt to get a government official to attend the briefing.

The group finally released the staff at 1.44 am, 25 April 2014.

In another incident, Malaysia Airlines Security supervisor, Kalaichelven Shunmugam was attacked by a Chinese family member whilst on duty at Lido Hotel in Beijing on 22 April 2014. The airline staff tried to stop an aggressive family member who demanded access to the secretariat, when the latter kicked the staff in his left knee.

Those at the scene managed to defuse the situation and later brought Kalaichelven to the secretariat for first aid assistance.

The staff sustained only light injury.

Malaysia Airlines had filed a police report following the incident.⁴³

The company issued a more specific statement of concern in a media statement on 1 May 2014 which stated:

Malaysia Airlines is acutely conscious of, and deeply sympathetic to the continuing unimaginable anguish, distress and hardship suffered by those with loved ones on board the flight ... we share the same very feelings and have been doing whatever we can to ease the pain of the families and to provide comfort for them.⁴⁴

However, the company advised relatives of passengers that it had abandoned all hope of finding survivors by SMS text messages when it could not contact them personally or by phone (see Figure 5). This was seen as insensitive and callous.

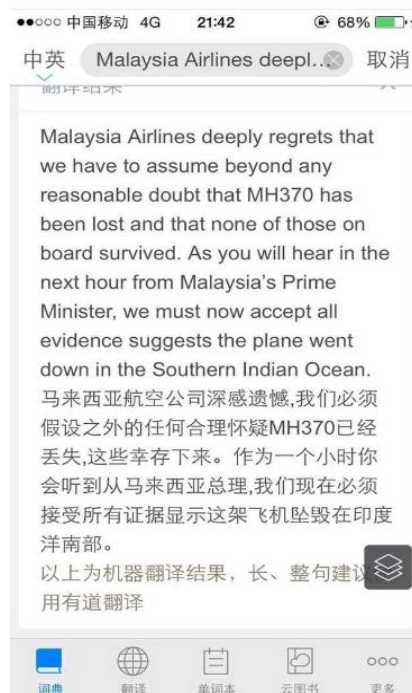


Figure 5. SMS text message sent to relatives of passengers on Malaysia Airlines MH370.⁴⁵

The Malaysia Airlines MH370 incident demonstrates that, irrespective of commitment to operational imperatives, public communication is very important during crises. Companies and organisations involved in a crisis must demonstrate genuine concern for people and communities affected. Even when the physical health of people is not affected and no immediate risk to them is involved, the mental health and wellbeing of people is often impacted.

The MH370 crisis also demonstrates the importance of cultural issues and how they affect communication. In this case, communication needed to be tailored to family members from 14 nations speaking 6–7 different languages with a wide variety of education backgrounds and levels, which affected their ability to understand technical language often used in communication. While the specific cultural factors in this case are different to the situation in the Latrobe Valley during the Hazelwood coal mine fire, this case illustrates the need for culturally and socially attuned communication during a crisis.

3. Public communication channels for utilisation

A wide range of media are available to organisations today and most can be used in a crisis to mediate information through mass media or directly to stakeholders and the public. These include the following.

Mass media news

In order of speed with which information can be distributed to the public, these include:

1. Wire services (e.g., AAP);
2. Radio news (which has hourly bulletins and can broadcast live);
3. Television news (which can broadcast live); and
4. Newspaper editorial reporting (particularly local media).

‘Paid’ media (advertising)

1. Community service announcements (often offered for free, but presented in the form of advertising);
2. Paid advertisements (including display advertisements, public notices, and inserts).

‘Owned’ media

1. Organisation Web site/s;
2. Information leaflets (printed or electronic such as in PDF format);
3. Newsletters (can be issued regularly, such as weekly in long-running crises);
4. Posters/notices;
5. Public meetings;
6. Media briefings/news conferences;
7. Door knocking (widely used in political election campaigns but also can be used for other forms of community communication)
8. Information and booths in central locations.

Social media

1. Mobile phone text messages (SMS);
2. Microblogging (e.g., Twitter or others such as Sina Weibo for Chinese language);
3. Facebook (e.g., a Facebook page dedicated to public information about the mine fires);
4. YouTube videos, through which official statements can be distributed directly;
5. Pinterest (for posting photos);
6. Flickr (for posting photos);
7. Instagram (photos and video sharing).

Other than the mine operator, the departments and agencies involved in this crisis seem to have used many of these communication channels. The issues of concern seem to be more to do with speed, access, accuracy, and consistency, as discussed in Section 4.

4. Public communication during the Hazelwood coal mine fire

The following provides an analysis of public communication by the mine operator and key government agencies during the period of the fire from 9 February till the area was declared safe on 25 March, and since during the early period of clean up and recovery in April and early May, and compares these with established best practice public communication during crises, emergencies and disasters as summarised in this report. Particular attention is paid to the critical early weeks in February and early March when residents in the area were affected by severe smoke causing evacuations in some cases and potential health effects, during which they anxiously sought information, advice and assurances.

This analysis notes that public consultations by the Hazelwood Mine Fire Inquiry with residents revealed a number of public criticisms related to communication including:

- Fire information and notification came too late for local residents;
- Lack of information, response, and assistance from the mine owner;
- Confusion caused by lack of communications coordination, and mixed messages from all levels of government and on all aspects of the fire;
- Information from all government authorities, including the EPA and the Department of Health, was not provided quickly enough and was contradictory and misleading;⁴⁶
- Confusion over whether the fire is out or not;
- Information from various government authorities, including the EPA, Department of Health, and Latrobe City Council was confusing, inaccurate, inadequate, too slow, not comprehensive enough, misleading, and did not take into account local expertise;
- Government authorities should listen to the community;
- Poor media coverage – people were getting more information from interstate and overseas;⁴⁷
- Authorities were too slow in responding, leaving the local population to fill that gap by having to help each other;
- Reliance on social media and internet as the official method of communication is not effective as not everyone in the community has the internet and not everyone speaks English.⁴⁸
- Inconsistent advice about health issues, and a lack of representation from the Department of Health at the first few community meetings and community consultations;
- Authorities relying on web-based, text-based, internet-based communications, which may not be appropriate for everyone in the community, nor reach everyone (reliance on text messaging not appropriate for elderly residents).⁴⁹

In some public consultations, residents reported that social media were useful in providing information to those with access – albeit there was concern expressed about:

- Social media providing inaccurate information.⁵⁰

A ‘Voices of the Valley’ submission to the Board of Inquiry also reported anger over the lack of information during the crisis.⁵¹

These and other criticisms are reviewed in the analysis of public communication by each of the key participants presented in the following sections.

It is also important to note that public consultations revealed praise for some communication including:

- ABC Radio updates;
- CFA and VicRoads Web sites;
- CFA information presented at public meetings;
- Social media communications, particularly Facebook and SMS emergency texts by the CFA;
- Police communications and information;
- The EPA Web site;
- Door knocking;
- Community meetings;
- Voices of the Valley meetings.⁵²

Country Fire Authority (CFA)

Given that the coal mine fire was started by a bushfire, the Country Fire Authority could be expected to be among the first to issue information to the public and local residents in particular.

Among the first and most important public communication initiatives of the CFA were **public meetings**. The first was held in the Latrobe Valley on Friday 14 February and a second public meeting was held in Morwell on 18 February, involving spokespersons from the CFA, Department of Health, and EPA. These public meetings provided an immediate and direct opportunity for communication and were generally welcomed and were in line with best practice.

The CFA issued an [audio report](#) on air quality in the Latrobe Valley on 14 February and started an online **Mine Fire Newsletter** with issues on [14 February](#) and again on [16 February](#) containing comprehensive information about air quality, roads, and contact numbers for support. No printed copy could be found, however.

In addition, the CFA established a '**Hazelwood open cut mine fire**' **Web page** in its 'News and Media' section on Saturday 15 February which was regularly updated throughout the crisis.

In the same section of its Web site, the CFA published regular '**CFA Updates**' in February and March 2014 in relation to the Hazelwood mine fire, as well as periodic Q&A documents. These included the following:

- [Hazelwood mine fire update 12/3](#)
- [Hazelwood mine fire update 10/3](#)
- [Hazelwood mine fire update 7/3](#)
- [Hazelwood mine fire update 6/3](#)
- [Hazelwood mine fire update 5/3](#)
- [Hazelwood mine fire update 4/3](#)
- [Hazelwood mine fire update - 3/3](#)

- [Hazelwood mine fire update - 2/3](#)
- [Mine fire Q&As 28/2](#)
- [Hazelwood mine fire update - 28/2](#)
- [Hazelwood mine fire update - 27/2](#)
- [Hazelwood mine fire update - 26/2](#)
- [Mine fires FAQs - 24 February](#)
- [Hazelwood mine fires update – 23/2](#)
- [Mine fires update – 20/2](#)
- [Mine fires update - 18/2/14](#)
- [Mine fires update - 17/2/14.](#)

The CFA was the most proactive in public communication of the government agencies studied. However, even with the CFA, there was a lag of 5 days before the first *Mine Fire Newsletter* was posted online and **a gap of 8 days** between the fire breaking out (on or around 9 February) and the first ‘Mine fire/s update’ being posted online by the CFA on 17 February.

Another proactive initiative of the CFA was **mobile van tours** operated in cooperation with the EPA to distribute information to the community and be available to answer residents’ questions. The first CFA mobile van tours started on Saturday 15 February, according to records reviewed (six days after the mine fire started).

During public consultations residents reported in relation to CFA information that:

- The CFA website didn’t show where the actual fire front was; and
- When the smoke was at its worst, the CFA van at Coles was closed so residents couldn’t get information.⁴⁶

However, the CFA also used **SMS text messages** in emergency situations and had more personnel on the ground in the area for attendance at meetings and direct public communication.

CFA Victoria is also a prolific user of **Twitter**, with more than 37,700 tweets as at 19 May 2014. The authority issued several hundred tweets in relation to the Hazelwood mine fire. Most of these contained links to the ‘CFA Updates’, as well as to other information such as Department of Health and EPA fact sheets and notices.

One of the instances of inconsistency in information seems to have been road closure and conditions notices issued by the CFA and VicRoads respectively. This analysis cannot determine which organisation was in error, but it is evident that CFA staff were ‘closer to the action’ and likely to be more accurate. There should be review of inter-organisation communication between the CFA and VicRoads.

While the CFA used electronic Web-based information distribution extensively, the authority also was present ‘on the ground’ more than other government agencies, involved in public meetings and mobile van tours, as well as its central role in fighting the fire. Perhaps the only criticism that this analysis can level at the CFA is an over-reliance on Web-based information. Printed copies of key fact sheets, Q&As, and updates would have been a useful addition to its public communication for residents who are not internet users.

Environment Protection Authority (EPA)

The EPA issued regular alerts in relation to the Hazelwood mine fire on a dedicated page of its Web site (<http://www.epa.vic.gov.au/air-quality-latrobe-valley-mine-fire/latest-alerts-on-the-hazelwood-mine-fire>) under the general heading of 'Air quality: Latrobe Valley mine fire'.

During the period 11 February to 29 April 2014 (77 days), **76 alerts were issued by the EPA** – an average of one per day, although up to five were issued on some days. Of these, **32 were "low smoke alerts"** and a **'no smoke' alert was issued on 5 days**. By comparison, **26 alerts of high or severe smoke** in the Latrobe Valley were issued – 3 in one day on 23 February and two each day on 21 and 22 February. Morwell and Morwell South were specifically mentioned in several of the alerts. The remainder was comprised of announcements in relation to air quality monitoring, a reference to a Department of Health community update, and announcement of the Board of Inquiry.

The then EPA CEO John Merritt was a key participant in a **media conference** held in Morwell on 9 February, along with Latrobe City Mayor, Sharon Gibson. He also participated in a media conference with Chief Health Officer, Dr Rosemary Lester, and Fire Services Commissioner, Craig Lapsley, on 26 February. Review of videos of other media conferences on 27 February, 28 February and 17 March show participation by the Chief Health Officer, the Fire Services Commissioner, the Police Commissioner, and Latrobe City Mayor of Sharon Gibson, but do not show involvement of the EPA.

Under 'News and Updates', the EPA's first statement in relation to **testing air quality** at Morwell was issued on 17 February, **8 days after the coal mine fire broke out** (see Figure 6). This does seem to have been an inordinate delay, given the fears and concerns of the affected communities.

The **first media release** issue by the EPA in relation to the mine fire was an announcement on 20 February that **'EPA ramps up air monitoring in Morwell'**. Again, this was a significant lag – **11 days after the fire started**. Other media releases related to the bushfires generally.

The EPA posted a Web alert on 6 March stating that:

EPA will be installing additional equipment at our southern Morwell monitoring site. As a result, we expect data for sulfur dioxide (SO₂) to be unavailable between 10.00 and 11.00 am and between 1.00 and 4.00 pm. Also, data for carbon monoxide (CO) may be unavailable for part of the day.

However, no alerts provided any information about levels of sulfur dioxide, carbon monoxide, or other chemical or particle pollutants. EPA distributed information about smoke generally and notification that it was testing air quality.

The screenshot shows the top navigation bar of the EPA website with links: 'Your environment', 'Get involved', 'Our work', 'For business and industry', and 'About us'. Below this is a large blue banner with the text 'News and updates'. A breadcrumb trail reads: 'Home > About us > News Centre > News and updates > Air monitoring in M...'. A '+ SHARE THIS' link is on the right. On the left is a vertical menu with options: 'Who we are', 'EPA's environmental performance', 'Legislation', 'Engagement policy and Environmental Citizenship strategy', 'News Centre' (selected), 'News and updates', 'Media releases', 'Student enquiries', 'Subscribe to email newsletters and alerts', 'Careers', and 'EPA authorised officer complaints'. The main content area features the article title 'Air monitoring in Morwell' dated '17 Feb 2014'. The text describes EPA's air quality monitoring in the Gippsland area, specifically at a station in Traralgon, and mentions two particulate monitors in Morwell. It also notes CO monitoring on the Hazelwood mine boundary and provides a link for health advice on bushfire smoke.

Figure 6. Sample of news and updates posted online by the EPA (<http://www.epa.vic.gov.au/about-us/news-centre/news-and-updates/news/2014/february/17/air-monitoring-in-morwell>).

To obtain detailed information of air quality and particularly chemical and particle pollutants (e.g., carbon monoxide, sulfur dioxide, nitrogen dioxide, and PM10) the public had to go to the EPA's *Air Quality Bulletins*. This information was most likely hard to find for some residents – as shown by the Web page address in the caption of Figure 7, it is four clicks on three different menus away from the home page.

However, this tables and graphics presented are reasonably simple to understand, with a color-coded index clearly showing poor quality air in red and fair as yellow, as well as columns indication the type of pollution that is affecting each area listed in the left side column (see Figure 7).

This information is certainly easier for non-technical persons to understand than tables of particle pollution levels in fact sheets issued by the Department of Health from 24 February (see 'Department of Health' later in this section).



Figure 7. EPA 24 hour air quality summary: Wednesday 14 May 2014, 24 hours up to 8am (<http://www.epa.vic.gov.au/our-work/monitoring-the-environment/air-quality-bulletins/24-hour-air-quality-summary>).

EPA appeared to respond to community concerns to some extent. For instance, the agency investigated community reports of a ‘fertiliser-like odour’ in Morwell. However, the EPA’s public communication on this matter was somewhat ambiguous and could be seen as curt. Under its ‘News and Updates’ it posted the following statement (see Figure 8), which advised that “EPA Victoria investigated businesses in Morwell”. This could be interpreted to mean that the EPA was blaming local businesses for the odour, rather than the coal mine fire.

Morwell odour update

12 May 2014

EPA Victoria investigated businesses in Morwell last week after reports from the community of a fertiliser-like odour.

No obvious source was identified and the odour is no longer detectable. We have collated the complaints and encourage residents to report back to us on [1300 EPA VIC \(1300 372 842 \)](tel:1300372842) if the odour returns.

It can be difficult to confirm odour or pinpoint a source due to its transient nature, so EPA relies on timely community reports combined with mapping and weather forecasts.

Figure 8. EPA statement under ‘News and Updates’ in relation to claims of a fertiliser-like odour in Morwell.

Overall, early public communication by authorities downplayed risks from the mine fire. For example, the first ‘tweet’ was posted on Twitter by the EPA on 12 February, three days after the coal mine fire started, and this and several subsequent ‘tweets’ **advised the public that there was little or no risk to their health**. Figure 9 shows ‘tweets’ posted by the EPA on 12 and 13 February advising of “**very low level of carbon monoxide impacts**”.



Figure 9. The first ‘tweets’ posted on Twitter by EPA Victoria following outbreak of the Hazelwood open cut coal mine fire.

The EPA continued using Twitter regularly during the period of the fire. Comparing EPA Twitter information with the peak period of high smoke alerts by the CFA shows that the EPA responded by distributing more information on Twitter. As shown in Figure 10, a series of tweets were posted by the EPA on 21–22 February which were consistent with CFA updates on smoke intensity and which included retweets of CFA Updates and included posting a link to a Victorian Department of Health fact sheet.



Figure 10. ‘Tweets’ posted on Twitter by EPA on 21–22 February, peak days of smoke as advised by the CFA.

However, the EPA Victoria had a Web site outage in mid-April.

Also, while endorsing the use of social media as an important channel for fast communication with internet-connected and social media savvy citizens, it can be concluded that there was **an over-reliance on internet communications during the coal mine fire crisis**. While specific analysis of the demographics and socioeconomic status of communities affected by the mine fire is provided in a separate report, it is noted that lower SES and older demographics are generally less frequent and less literate users of social media than young people and high SES and highly educated groups. Also, in trying to understand complex issues such as various types of chemical and particle air pollution, many citizens who do not have technical training require explanation, discussion and a chance to ask

questions and clarify information – communication that often requires face-to-face meetings and printed information sheets that can be kept and referred to as required (compared with the ‘flickering temporality’ of Web pages).

For example, as active as the CFA Twitter account was during the period of the fire, the site had **only 38,700 followers** in total as at 19 May 2014. While significant, this is not substantial compared with the population of Victoria (0.7% based on 2013 census statistics). It is likely that only a small percentage of the population of areas affected by the mine fire use Twitter.

This analysis does not recommend reducing social media communication within Victorian government departments and agencies, as global research – some of which was summarised in Section 2 – shows these channels to be increasingly important and effective in crises, emergencies and disasters. But it identifies a need for greater use of other channels of communication appropriate to the specific audiences affected, including:

- Well-organised public meetings with speakers capable of explaining what people need to know – even daily community briefings;
- Printed information and fact sheets on key issues of concern (e.g., health effects, what to do in the circumstances, etc.) for those who are not internet users;
- Direct letterbox drops of information sheets door-to-door in heavily affected areas, noting that not all people will or can attend meetings;
- Information booths in community centres;
- Detailed information provided to the media and enlisting local media in the project of helping distribute key information editorially and through public notices and Community Service Announcements (CSAs).

Furthermore, all organisations examined appear to need **crisis and risk communication training** as, while many provided factual information, **none addressed basic human needs for empathy, expressions of concern and care, and assurances**. Communication was mostly functional – information pushed out in bits and bytes and packaged in neatly designed PDF documents. Crisis communication needs to take into account the psychological, sociological, cultural, and phenomenological aspects of human communication.

While electronic communication has the benefit of speed and open access, the ultimate form of human communication remains face-to-face. With the operational pressures of a crises limiting time and resources for sitting and talking with people, the key departments and agencies involved should consider the inclusion of **community relations specialists** in their communication teams who can be deployed into communities during an emergency or disaster to work with communities in accessing and interpreting information and acting as an interface between communities and the providers of information and services.

Department of Health

The Chief Health Officer (CHO) issued a number of Advisories during the crisis. Seven issued between 17 February and 21 March were reviewed in this analysis. Electronic PDF versions sighted included extensive links to further information. However, it is not clear how widely

these were circulated. Also, the first of these advisories was not available until **8 days after the fire started**. By then, 5 high smoke alerts had been issued by the EPA.

A range of **fact sheets** were produced by the Victorian Department of Health specifically in relation to risks posed by the Hazelwood mine fire, providing information on issues such as the effects of ash, wearing of face masks, carbon monoxide, effects on rainwater tanks, and cleaning up, and distribution of these started **from around 24 February**. Content analysis indicated that these provided quite comprehensive factual information mostly presented in a clear readable format – although **some of the issues are very complex** (see Figure 11).

What has the VOC testing found so far?

Of the 64 chemicals tested for, 50 were not found. The 14 chemicals that were found are listed in the table.

Chemical	Unit	Morwell East		Morwell Bowling Club		Maryvale Crescent Early Learning Centre		Air Quality Guideline Value ¹
		26 Feb	27 Feb	26 Feb	27 Feb	26 Feb	27 Feb	
Propene (Propylene)	ppb	4.7	5.7	42	28	24	16	232.4
Dichlorodifluoromethane (Freon12)	ppb	0.89	0.89	0.81	0.84	0.83	0.86	101000
Chloromethane (methyl chloride)	ppb		1.5	1.9	2.0	2.5	1.9	155
1,3-Butadiene	ppb			2.5	1.6	1.6	0.70	145
Acetone	ppb	1.9	2.2	8.0	7.0	5.8	6.2	497
Ethanol	ppb	2.9	94.9	7.2	8.4	5.3	5.4	10084
Carbon disulfide	ppb						0.81	106
2-Butanone (MEK)	ppb			1.1	0.93	0.75	0.82	339
Hexane	ppb			1.2	0.89	0.77		284
Benzene	ppb	1.7	2.1	14	9.7	9.2	6.0	9
Heptane	ppb			0.91	0.70	0.61		2684
Toluene	ppb	0.70	0.92	4.7	3.4	3.0	2.1	531
Ethylbenzene	ppb				0.57			230
Naphthalene	ppb			0.97	1.6			4.29

Figure 11. Sample information provided in Victorian Department of Health fact sheets.⁵³

A search of the Department of Health Web site Media Centre (<http://www.health.vic.gov.au/media>) revealed **no media releases** were issued by the department in relation to the Hazelwood mine fire. There were three media releases issued by the Minister for Health, David Davis, as listed under ‘Other government communication’ later in this section. There were no media releases issued by the Victorian Minister for Mental Health Mary Wooldridge.

The Victorian Department of Health also issued community updates online. Only three could be found online as follows:

- [Hazelwood open cut mine fire Community Update 16 May 2014](#)
- [Hazelwood open cut mine fire Community Update 30 April 2014](#)
- [Hazelwood open cut mine fire Community Update 17 March 2014.](#)

The first *Community Update* issued by the Department of Health on 17 March 2014 – **34 days after the fire started** – contained a good deal of information on whether residents could return home, wearing of face masks, how to safely clean ash from homes, as well as links to the following:

- [Ash fall-out - Hazelwood open cut mine fires](#)
- [Smoke and your health - Hazelwood open cut mine fire](#)

- [Face masks - questions and answers about the smoke and ash from the Hazelwood open cut mine](#)
- [Rainwater tanks - Hazelwood open cut mine fire](#)
- [Cleaning up a smoke and ash affected home - Hazelwood open cut mine fire.](#)

However, while it is not known whether hyperlink errors existed during the critical period of the fire, clicking on a number of the above links in May resulted in ‘page cannot be found’ errors, as displayed in Figure 12.

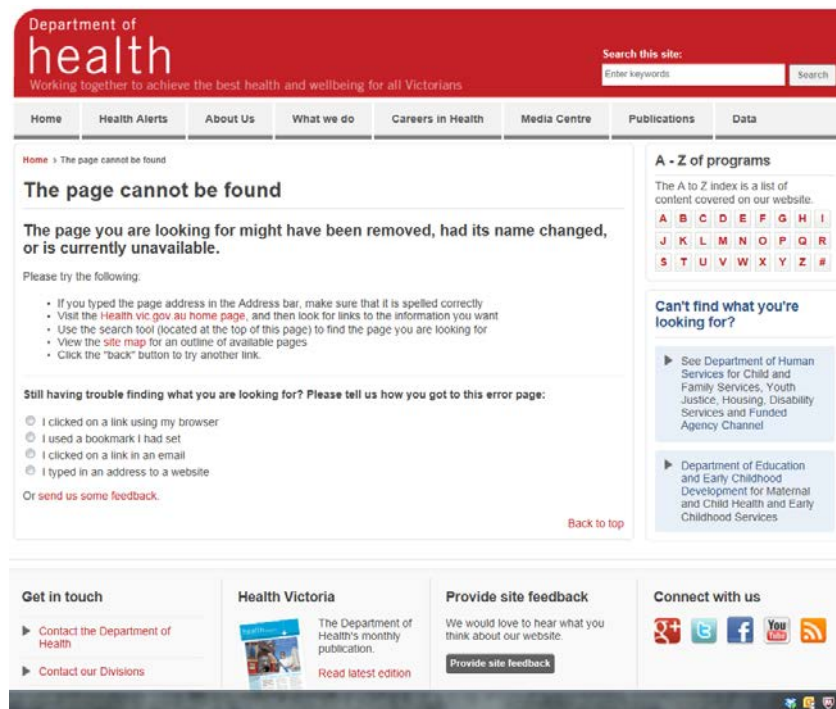


Figure 12. ‘Page cannot be found’ error when clicking ‘Ash fall-out – Hazelwood open cut mine fires’ in the list of Department of Health information in *Community Update – ‘Hazelwood open cut mine fires’* of 17 March 2014.

In public consultations residents voiced several complaints in relation to the Department of Health including:

- The response from authorities, including evacuation advice, was too slow; the health warnings for asthmatics and evacuation of elderly residents was too late in coming;
- Inconsistent advice about health issues, and a **lack of representation from the Department of Health at the first few community meetings and consultations.**⁴⁶

The dates of issue of the first Chief Health Officer advisory, the first CFA *Mine Fire Newsletter*, and the first of the EPA ‘News and Updates’, which began on 17 February (8 days after the mine fire started); Department of Health community information sheets which began on 24 February (15 days after the fire started); and Department of Health online *Community Updates*, which began on 17 March (34 days after the fire started) indicate that **the provision of information to the public was slow** compared with what is expected and regarded as best practice in crises and emergencies.

Even the first public meeting with residents living adjacent to the Hazelwood mine in Morwell was not until almost one week after the mine fire started and after ‘high level’ smoke alerts had been issued by the EPA (the first public meeting being on 12 February). And it was not attended by either the mine operator or the Department of Health.

Also, a media release was not issued by the EPA or a senior government leader for 11 days after the fire started and even the local Latrobe City Council did not issue a media release until 10 days after the mine fire started. While news releases from authorities are not essential for media coverage, official statements are an important source of news for journalists and for checking facts. The lack of effective media relations by Latrobe City Council and major government departments and authorities involved almost certainly contributed to a perceived lack of local media coverage providing useful information for residents.

Best practice regards media as partners in crisis communication. While the author has not had the opportunity to interview journalists reporting on the fire, media did not seem to be engaged in a partnership during this crisis.

Also, in addition to advocating “treat publics with respect”, best practice risk and crisis communication advocates: “**make publics partners with risk communicators**”.⁵⁴ Apart from several public meetings and later consultations, the major government departments and authorities involved did not demonstrate listening to the community or engaging the community. Greater two-way communication, rather than reliance on one-way electronic distribution of information is desirable in such circumstances.

Department of Human Services

The Victorian Department of Human Services (DHS) provides considerable information on its Web site in relation to ‘[Preparing for emergencies](#)’. This includes information on essential services disruption with links to the Victorian Bushfire Information Line and St Johns Ambulance and on ‘Managing stress during emergencies’ – one of the few sources of information which address the mental health aspects of crises and emergencies. Linked pages provide direct links to the 24-hour Lifeline telephone service; the toll-free Beyond Blue information phone line; Kids Helpline; Mensline; Parentline; and the toll-free Nurse on Call service.

However, a search of the DHS Web site revealed little information in relation to the Hazelwood mine fire. The April 2014 issue of the *In Focus* newsletter of the department mentioned the Hazelwood mine fire only in one brief sentence, stating that:

Most recently we have been working hard to support the community in the aftermath of the Hazelwood open cut coal mine fire.⁵⁵

The Community and Public Sector Union (CPSU) claimed that the Department of Human Services did not do enough to protect employees working at Morwell’s Centrelink customer centre during heavy smoke days (*Latrobe Valley Express*, 3 March 2014, p. 7).

Latrobe City Council

Latrobe City Council has a major focus on uniting the community and recovering from the damage caused by the coal mine fire under the theme of ‘Unite and Recover’, as shown on its Web site in May 2014.



However, limited specific information was found from a search of its Web site in relation to the Hazelwood mine fire during the period February–March 2014.

The Council publishes a newsletter periodically and makes available information on preparation for ‘Fire, Floods and Other Emergencies’ on its Web site. This includes helpful links to relevant specialist agencies such as the CFA, EPA, and the Department of Health, but provides only minimal information directly and, in the case of fires, this is mainly related to domestic blazes.

In fact, under ‘Public Notices and Announcements’, there was only notice for 2014 in relation to a special council meeting.

The Mayor Sharon Gibson participated in an important **media conference on 9 February** with then EPA CEO John Merritt, and a media conference on 27 February. However, the Council issued only two media releases in relation to the mine fire between 9 February and early May and did not issue its first media release until 19 February – **10 days after the fire started** – and this was only to report that Morwell reserve was closed to the public as a result of the fire. A second media release was issued on 11 March advising that ‘Latrobe City’s most vulnerable residents can now breathe easier’.

The Council has a Twitter and Facebook account, but its Facebook page (<https://www.facebook.com/LatrobeCity>) contained only one post in relation to the Hazelwood mine fire – a notice to ‘Have your say in the Hazelwood mine fire inquiry community consultations’ (10 April 2014). The Council posted less than a dozen tweets on Twitter in relation to the fire during the crisis period of February–March, linking to CFA, EPA, and VicRoads information (<https://twitter.com/latrobecity>).

Other government communication

The Premier of Victoria, Deputy Premier, Minister for Health and Ageing, and other senior government representatives issued media statements during the crisis. These included:

- The Deputy Premier Peter Ryan and the Minister for Health and Ageing, David Davis announced a Health Assessment Centre to open in Morwell (20 February);
- The Minister for Health and Ageing, David Davis visited the Latrobe Valley Community Respite Centre (20 February)

- The Minister for Health and Ageing, David Davis, announced an expansion of the Morwell Health Assessment Centre (27 February);
- The Premier, Denis Nathine announced a \$2 million business assistance package for Morwell (3 March);
- The Premier, Denis Nathine announced the Board of Inquiry into the Hazelwood mine fire (11 March);
- The Premier, Denis Nathine, announced a \$2 million clean-up for Morwell (18 March);
- Victoria’s Chief Health Officer Dr Rosemary Lester announced lifting of the advice for temporary relocation of vulnerable groups in the southern parts of Morwell, saying they can return to their homes and workplaces in In a media release issued by the Incident Control Centre (17 March).

The Victorian Premier also hosted a news conference to discuss the fire on 28 February.

GDF SUEZ Hazelwood and GDF SUEZ Australian Energy

Lastly, this analysis comes to the mine operator. In most cases of crises and emergencies involving a facility such as a mine, the company is expected to be among the first to provide information and is expected to play a central role in assisting authorities and providing information to the public. In the case of the GDF Suez Hazelwood mine, Morwell is its local community. It could be reasonably expected that the majority owner, GDF SUEZ Australian Energy, would seek to maintain goodwill with local residents, many of whom are employees, contractors, or service providers, and families and friends of such.

In this case, little can be said about the mine operator in terms of public communication during the crisis, as there was relatively little. Specifically:

- GDF Suez Australian Energy issued four media releases in relation to the Hazelwood mine fire – the first on 11 March, **28 days after the fire started**, and three further media releases on 2, 14 and 15 May respectively. The first media release was not issued until the Board of Inquiry was announced;
- **None of the media releases or other statements issued by the company conveyed any expression of regret, concern, empathy or compassion** for those affected. As noted in Section 2 on best practice crisis communication, while companies involved in a crisis can be expected to avoid statements that admit liability, this does not prevent them from expressing concern, compassion, empathy, and even regret for people adversely affected, and from offering assurances;
- The first media release issued by GDF SUEZ welcomed the mine fire inquiry and made a commitment to “cooperate fully with the inquiry process”. The company is legally required to do so, so this does not represent a significant initiative on the company’s behalf. The third paragraph of the three-paragraph statement also stated that the Chief Executive Officer, Mr Alex Keisser, said:

GDF SUEZ Australian Energy was committed to working with representatives of Morwell and surrounding communities as the fire recovery process gets under way.

- However, no details of what is entailed in “working with representatives of Morwell and surrounding communities” was provided until the fourth media release issued on 15 May announced the ‘Revive Morwell’ Retail Support Program. But even this only revealed that this program was designed to “encourage Morwell residents to shop locally at businesses and trade outlets during the week of 26–31 May.”⁵⁶



- A news story in *The Latrobe Valley Express* on 22 May 2014 reported that GDF SUEZ is planning to distribute \$100 gift vouchers to 6,700 homes in Morwell which can be redeemed by shopping at local businesses. The injection of \$670,000 into local trade will significantly benefit local businesses and, in total, this is a substantial amount of money. However, this analysis is compelled to observe that:
 - \$100 per household is a relatively small amount of money for families who report potentially serious physical health effects as well as substantial mental health concerns caused by stress and anxiety during the crisis;
 - The cash donation could be interpreted as a post-crisis attempt to ‘buy off’ people in the town, most of whom would have preferred more up-front preparation, information, and open engagement from the company during the crisis.
- GDF Suez representative did not attend any of the community meetings or consultations. This is also contrary to best practice crisis communication in which senior management of companies involved are expected to demonstrate leadership and responsibility by being physically present (i.e., visiting sites) and speaking with local media and affected groups.
- Beyond the issue of media statements, a GDF Suez spokesperson, Trevor Rowe, was quoted **in the media** on 17 February as saying “mine operations – initially crippled by bushfire electricity blackouts – had returned to normal” (*Latrobe Valley Express*, 17 February 2014, p. 7). This communicated a focus on the operations of the mine, with no mention of the community. Given that the same newspaper story reported that 20 CFA fire fighters had been hospitalised because of alleged carbon monoxide exposure, it can be concluded that the company failed to communicate concern for the community.

A further long **statement by George Graham, Asset Manager of GDF SUEZ Hazelwood, was posted on the CFA Web site** on 20 February 2014. In the statement (see Figure 13), Graham said that a company representative had not attended public meetings because “it was felt that health concerns of Morwell residents and Latrobe Valley communities are best handled by the appropriate health authorities” (see Figure 13). Even if this was so, the presence of the company would have demonstrated its concern and commitment. Absence is seen as synonymous with silence and is seen very negatively, as shown in Table 1 in Section 2.

The screenshot shows the CFA website's 'News & Media' section. At the top, there is a search bar with the text 'Protecting lives and property' and a magnifying glass icon. Below the search bar is a navigation menu with tabs for 'WARNINGS & RESTRICTIONS', 'PLAN & PREPARE', 'VOLUNTEER & CAREERS', 'NEWS & MEDIA' (which is highlighted), and 'KIDS & SCHOOLS'. The main heading is 'News & Media' with a breadcrumb trail: 'CFA Home > News & Media > Latest News > Mine update from GDF Suez'. On the right, there are links for 'CFA News Log in | Share | Print'. A left-hand sidebar contains a list of navigation options: 'Latest News', 'Media', 'Photos', 'Video', 'Forum', and 'Blog'. The main content area features the article title 'Mine update from GDF Suez' dated 'Thu 20 Feb 2014'. It lists the author as 'CFA Media' and provides details on location (District 9, 10, 11), categories (Community Safety, Incidents - Vehicle / Rescue / Hazmat), views (2562), and comments (0). The article text begins with: 'The bushfire that started west of Morwell and spread into the Morwell mine on the afternoon of Sunday 9 February continues to burn, producing significant smoke and ash that is impacting on surrounding communities.' To the right of the article is a 'More from this Author' section with a list of related articles: 'Woman behind the mask', 'Good bloke on the water', 'Firefighter by Day and Night', 'Myrniong trauma nurse's service', and 'Battling fires at work and home'.

[Issued by George Graham, Asset Manager, GDF SUEZ Hazelwood]

This is one of the most serious fire situations ever confronted at the Morwell mine and GDF SUEZ Hazelwood is working closely with the CFA and MFB to extinguish smouldering mine faces as quickly as we can. I cannot speak too highly of all those who have worked tirelessly to first bring the fire under control and who are now tackling the challenging task of extinguishing the fire.

At the same, we fully understand the inconvenience and concern that the smoke from the fire has caused for people living in surrounding areas. As several other Victorian communities have experienced in recent times as a result of major bushfires, the level of smoke is directly related to the severity and intensity of the fires. I assure you that GDF SUEZ Hazelwood is committed to working with all relevant authorities to reduce the level of smoke as quickly as we can.

There are many questions being asked in the community about various aspects of the fire and the fire-fighting response. This open letter to the Latrobe Valley community aims to answer some of those key questions.

What is the current status of the fire?

The fire has been contained but continues to burn on two worked out faces of the mine. An area of some 150 hectares has been affected, with the fire spread over some 2.5 km on three levels of the mine. The fire is a distance of some three kilometres from the mine operating face. The task now is to progressively extinguish the smouldering faces.

What caused the fire and how was it able to spread?

While the cause of the fire will be the subject of investigations, it is believed that it was caused by embers entering the mine from the bushfire west of Morwell. This ember attack, fanned by high winds, is believed to have rapidly caused a number of spot fires across the Northern and South-eastern areas of the mine.

Does Hazelwood have a fire prevention and protection strategy in place?

Yes, GDF SUEZ Hazelwood has a comprehensive fire prevention and protection strategy incorporating a number of proactive processes in place including fire detection, fire prevention and fire mitigation measures. These processes include regular patrols, fire watch, fire alerts, and sprays to protect the operational and non-operational areas and reduce dust levels in the mine's exposed coal faces. Hazelwood's focus is at all times on ensuring the safety of people, along with ensuring supply of power and protection of property and infrastructure.

What is being done to extinguish the fire?

Some 200 CFA and MFB firefighters have joined with 80 mine personnel to jointly fight the fire around the clock over the past week and a half. The best available fire-fighting equipment sourced from all over Victoria and some from interstate has been brought to the fire-fight. This includes a range of aerial fire suppression involving long-line helicopters and sky-cranes.

How long will that take?

It will take significant time and effort to extinguish as the coal needs to be cooled with large quantities of water being applied over an extended period to prevent re-ignition. Experience suggests it could take up to two weeks or more to completely extinguish.

What is being done to reduce the level of smoke?

While the fire-fighting authorities are doing all they can to minimise smoke leaving the mine, weather and atmospheric conditions will be the major determinant of the level of smoke.

Have fire-fighters been affected by carbon monoxide?

Ongoing monitoring of all those involved in the fire-fighting operation has resulted in a number of personnel being taken to hospital for testing and observation. There have been no reports of any serious impacts of carbon monoxide. Personal and area monitoring is continuing to ensure the safety of all those involved.

Has the fire affected mining and power station operations?

Coal supply was interrupted in the initial stages when we lost power supply to the mine. However, this was quickly rectified and coal dredgers and power station generating units have been back in normal operation for more than a week.

Will there be an investigation into the fire and its impact on surrounding communities?

Yes. An investigation will be conducted as soon as possible, taking into account the current focus on extinguishing the fire and ensuring the protection of people and property.

Why hasn't Hazelwood been represented at the two community meetings?

These meetings were principally called to provide information on any health concerns that local residents may have. Hazelwood has been working closely with the CFA and other agencies, by providing information as appropriate. In the case of these meetings, it was felt that health concerns of Morwell residents and Latrobe Valley communities are best handled by the appropriate health authorities.

Where can I get more information?

A number of authorities have information lines to respond to specific queries. They are:

- Victorian Bushfire Information line 1800 240 667
- Environment Protection Authority (EPA) 1300 372 842
- Nurse on Call 24 hours a day, seven days a week 1300 606 024
- Department of Health 1300 253 942
- State Environment Health Unit 1300 761 874

GDF SUEZ Hazelwood fully understands the Latrobe Valley community's concerns about the current situation. I assure you we are committed to continuing this major operation to extinguish the fire as quickly as we can.

George Graham, Asset Manager, GDF SUEZ Hazelwood

Figure 13. Statement by George Graham, Asset Manager, GDF SUEZ Hazelwood on 20 February 2014.

Interestingly, this statement was found using a search function on the GDF SUEZ Web site at <http://www.gdfsuezau.com/media/UploadedDocuments/News/Morwell%20mine%20fire%20update.pdf>, along with three other Hazelwood 'mine fire updates' (mostly undated). However, only one Hazelwood mine fire update of 14 May 2014 is shown in the menus of the site. It is possible that earlier updates were available, but removed since.

While this analysis does not take into account communication by the company with government authorities and agencies, it concludes that public communication by the mine operator fell well short of good communication practice in such situations. The mine operator's public communication could be interpreted as showing disdain for the local community. In the very least, it showed lack of sensitivity and concern.

While media reporting cannot be taken as always accurate and fair, or fully representative of all views, a major editorial in Victoria's leading daily newspaper, *The Age*, claimed that "there does not seem to be any sense of urgency" in dealing with the Hazelwood open coal mine fire (see Figure 14).



A hazy response as Morwell suffers

Seventy years ago, after disastrous bushfires ignited the open-cut coal mine near Yallourn in Gippsland, royal commissioner Leonard Stretton described how the town's residents lived mostly "in a fine rain of abrasive coal particles". Yallourn no longer exists. It was dismantled in later decades by the town's owners, the former State Electricity Commission, and sacrificed to the vast industrial exercise of mining brown coal to provide electricity for the state.

Residents of the nearby town of Morwell, however, know all too well what this "fine rain of abrasive coal particles" is like. For the past three weeks they have lived in it and breathed it constantly. Since February 9, fires have burned in a disused part of the coalmine that feeds the Hazelwood power station on Morwell's southern edge.

The powder-like coal-ash and acrid smoke, which some say smells like tar and tastes like metal, has hung heavy over the nearby valleys, smothering homes and causing havoc for those with asthma and respiratory problems. The pollutants irritate eyes and skin, and prickle nasal passages.

Now the state's Chief Health Officer, Rosemary Lester, has advised elderly people, pre-schoolers, pregnant women and anyone with pre-existing lung conditions to leave Morwell while the fire burns. Fire Services Commissioner Craig Lapsley says the blaze, which is believed to have been started by embers from a

bushfire that authorities suspect was deliberately lit, is not expected to be extinguished for at least 10 days.

Health authorities, understandably, are concerned about carbon monoxide levels. Two firefighters were taken to hospital in the early days of the fire with carbon monoxide poisoning, and a paramedic was similarly affected earlier this week. Yet there does not seem to have been any sense of urgency about the poor air quality in the region. While carbon monoxide is a silent and deadly killer, air pollution can trigger or exacerbate asthma or illness in people with pre-existing conditions. It also has the potential to cause serious diseases in later years if a person is exposed to poor quality air for prolonged periods. The EPA, which long has described particle pollution as "the most significant air quality issue facing Victoria", says ash from the Morwell mine fire is mostly composed of iron and aluminium. One public health specialist has compared the air quality around Morwell to levels in Beijing.

There has been inexplicable laxity on the part of the Napthine government in dealing with this environmental disaster. We do not seek to be alarmist, but EPA readings for the Latrobe Valley have exceeded designated safe levels for days and nights on end and we are concerned that the government has preferred to play down the problem.

Everyone is ultimately responsible for their own health, but there comes a time when the government needs to act. We are concerned that the government may have failed in its duty. It should have provided sufficiently detailed and unambiguous information from the day the fire began. And it should have acted in the early days of this fire to help relocate people when it became clear the fire could not be extinguished swiftly.

There must be a full and independent inquiry into the circumstances behind this coal fire. It should encompass every aspect of the fire prevention measures at the mine, the monitoring and regulation of those safety measures, and the firefighting strategies. It should also include a full review of the quality and timing of information given to nearby communities, and the appropriateness of the health response that was put in place.

We appreciate the constant efforts of hundreds of firefighters, yet this complex fire still burns. It has to be asked whether all that could be done is indeed being done.

There does not seem to have been any sense of urgency.

Figure 14. Newspaper editorial in *The Age*, 1 March 2014.

5. Consultant biographical summary

Professor Jim Macnamara PhD, FAMI, CPM, FPRIA, FAMEC⁵⁷

Jim Macnamara is Professor of Public Communication at the University of Technology Sydney. He took up this position in 2007 after a distinguished 30-year career working in professional communication practice spanning journalism, corporate and marketing communication, and media research.

Professor Macnamara is an internationally recognised practitioner, researcher, author and educator in the field of public communication and media.

He is a multi-award winning public communication professional, including being named 'Communicator of the Year' by *PRWeek* in 2002 and is the author of 15 books including *The 21st Century Media (R)evolution: Emergent Communication Practices* published by Peter Lang, New York in 2010 and as a second edition in 2013; *Public Relations Theories, Practices, Critiques* published by Pearson Australia in 2012; and *Journalism and PR: Unpacking 'Spin', Stereotypes and Media Myths* published by Peter Lang, New York in 2014.

After beginning his career as a journalist and after undertaking military service in the Australian Army, Jim worked in Army and Defence Public Relations (1974–76), as Director of Public Relations for the National Farmers Federation in Canberra (1980–84), and as Deputy Manager of Hill & Knowlton, Sydney (1985), before founding a leading corporate and marketing communication agency MACRO Communication, which he headed for 13 years (1985–1997) with clients including Microsoft, Vodafone and Singapore Airlines.

In 1995 he founded the Asia Pacific office of global media research company CARMA International (Computer Aided Research and Media Analysis) and sold his interest in MACRO Communication in 1997 to focus on communication and media research. He is an internationally recognised authority on measurement and evaluation of communication and in 2006 sold CARMA International to Media Monitors (now iSentia).

Since joining UTS, Jim has extensively researched social media including their use in election campaigns as well as for government-citizen engagement and public consultation (*e-democracy*), as well as continuing his interest in measurement and evaluation of public communication.

As well as having an extensive academic research and publishing track record, he has been commissioned to undertake research projects for and provide advice to the Australian Electoral Commission in relation to engaging youth online, the Cancer Institute NSW for evaluation of its anti-smoking campaigns, and a leading media company in relation to social media and media trends.

Jim holds a Bachelor of Arts (BA) majoring in journalism, media studies and literary studies, a Master of Arts (MA) by research in media studies, a Graduate Certificate in Writing, and a Doctor of Philosophy (PhD) in media research.

(See full CV attached as Appendix 2.)

Appendix 1

Letter of appointment



Hazelwood Mine Fire Inquiry

14 May 2014

Professor Jim MacNamara
Professor of Public Communications
University of Technology Sydney

By email: jim.macnamara@uts.edu.au

Dear Professor MacNamara

Hazelwood Mine Fire Inquiry

We refer to previous correspondence in relation to your engagement to provide expert assistance to the Board in the area of communications.

The Board of Inquiry requests that you provide a written report that addresses the following matters:

1. Outline your qualifications and relevant experience, and attach your curriculum vitae.
2. Describe the current best practice model for public communications during an event such as the Hazelwood Mine Fire. If possible, provide examples or case studies of effective public communications during such an event, drawing if applicable comparisons with the response to acute emergencies.
3. Evaluate the public communications that occurred in relation to the Hazelwood Mine Fire against current best practice. Include in your evaluation communications in all media from State government agencies, including the fire services, the Environment Protection Authority, the Department of Health and the Department of Human Services, Latrobe City Council and GDF Suez Energy Australia. Please also include an evaluation of the engagement of agencies with issues emerging in social media.
4. Identify any problems or shortcomings in public communications in relation to the Hazelwood Mine Fire.
5. Identify measures that should be taken to improve public communications in similar situations in future.

I understand that you have already been provided with access to media monitoring in relation to the Hazelwood Mine Fire from 9 February 2014 to date. In addition, the Inquiry has requested a number of statements in relation to communications,

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20 Hazelwood Road
Morwell VIC 3460

including from the Fire Services Commissioner, the EPA, the Department of Health, the Department of Human Services, Latrobe City Council, and GDF Suez Energy Australia. We will provide these statements to you as they become available.

You may be assisted by the **attached** Expert Witness Code of Conduct that applies to expert witnesses giving evidence in the Supreme Court of Victoria. While it is not directly applicable to the Inquiry, it gives a concise explanation of what is expected of an expert witness and the matters that should be included in your report.

We request that you provide your report by Monday, **26 May 2014**.

In turn, we will provide your report to the parties with leave to appear before the Inquiry before you give evidence to the Board. It is proposed that your evidence will be called during the Board's public hearings in the week starting 2 June 2014, probably on Thursday, 5 June 2014.

If you have any queries in relation to this request, please contact me on 9223 1706.

Kind regards



Justine Stansen
Principal Legal Advisor

Appendix 2

Communication expert curriculum vitae

CURRICULUM VITAE

Professor Jim Macnamara PhD, MA¹, FPRIA, FAMI, CPM, FAMEC²

Professor of Public Communication

Faculty of Arts & Social Sciences

University of Technology Sydney

PO Box 123, Broadway, NSW, 2007, Australia

Phone: 61 (0) 2 9514 2334

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E-mail: jim.macnamara@uts.edu.au

Websites: UTS bio: <http://www.uts.edu.au/staff/jim.macnamara>
<http://uts.academia.edu/JimMacnamara>

Twitter: <http://twitter.com/jimmacnamara>

Facebook: <http://www.facebook.com/jim.macnamara.31>

Blog: www.openforum.com.au/users/jimmacnamara

LinkedIn: <http://au.linkedin.com/in/jimmacnamara>



Academic Qualifications

- Doctor of Philosophy (PhD) in media research (University of Western Sydney, 2005)
- Master of Arts (MA) by research in media studies (Deakin University, 1993)
- Graduate Certificate in Writing (University of Technology Sydney, 1999)
- Bachelor of Arts (BA) majoring in journalism & media studies and literary studies (Deakin University, 1985)

Dr Macnamara had a 30-year professional career before joining UTS as an academic in 2007. Therefore, professional as well as academic publications and achievements are listed.

Publications

BOOKS (Academic) (See also 'BOOKS (Professional)

- Macnamara, J. 2014 [in print], *Journalism and PR: Unpacking 'Spin', Stereotypes and Media Myths*, Peter Lang, New York.
- Macnamara, J. (2014), *The 21st Century Media (R)evolution: Emergent Communication Practices*, 2nd edn, Peter Lang, New York.
- Macnamara, J. 2012, *Public Relations Theories, Practices, Critiques*, Pearson, Sydney.
- Macnamara, J. 2010, *The 21st Century Media (R)evolution: Emergent Communication Practices*, Peter Lang, New York.
- Macnamara, J. 2006, *Media and Male Identity: The Making and Remaking of Men*, Palgrave Macmillan, London.

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- Macnamara, J. 2014 [forthcoming], 'Socially integrating PR and operationalising an alternative approach', in J. L'Etang, D. McKie, N. Snow & J. Xifra (eds), *The Routledge Handbook of Critical Public Relations*, Routledge, London.
- Macnamara, J. & Crawford, R. 2014 [in print], 'Public relations', in B. Griffin-Foley (ed.), *A Companion to the Australian Media*, Australian Scholarly Publishing, Melbourne.

¹ Master of Arts by Research (Media Studies).

² FPRIA – Fellow of the Public Relations Institute of Australia; FAMI – Fellow, Australian Marketing Institute; CPM – Certified Practising Marketer, AMI; FAMEC – Founding Fellow, Association for Measurement and Evaluation of Communication, UK.

- Crawford, R. & Macnamara, J. 2014, 'An agent of change: Public relations in early twentieth-century Australia' in B. Saint-John, M. Lamme & J. L'Etang (eds), *Pathways to Public Relations: Histories of Practice and Profession*, Routledge, Abingdon, Oxon, UK and New York, pp. 273–289.
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- Macnamara, J. 2013, 'Beyond voice: Audience-making and the work and architecture of listening', *Continuum: Journal of Media and Cultural Studies*, vol. 27, no. 1, pp. 160–175. doi: [10.1080/10304312.2013.736950](https://doi.org/10.1080/10304312.2013.736950)
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- Macnamara, J. 2012, 'Democracy 2.0: Can social media engage youth and disengaged citizens in the public sphere', *Australian Journal of Communication*, vol. 39, no. 3, pp. 65–86.
- Macnamara, J. Sakinofsky, P. & Beattie, J. 2012, 'E-electoral engagement: How governments are using social media to try to engage/re-engage voters', *Australian Journal of Political Science*, vol. 47, no. 4, pp. 623–39. doi: [10.1080/10361146.2012.731491](https://doi.org/10.1080/10361146.2012.731491)
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- Crawford, R. & Macnamara, J. 2012, 'An 'outside-in' PR history: Identifying the role of PR in history, culture and sociology', *Public Communication Review*, vol. 2, no. 1, pp. 45–59. Available at <http://epress.lib.uts.edu.au/journals/index.php/pcr/article/view/2521/2826>

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- Macnamara, J. 2005, *Jim Macnamara's Public Relations Handbook*, 5th edn, Archipelago Press, Sydney. (First published 2000, Information Australia, Melbourne. Translated into Chinese, 2002, Prentice-Hall)
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- Peart, J. & Macnamara, J. 1996, *The New Zealand Public Relations Handbook*, Dunmore Press, Auckland, New Zealand (First published 1987)
- Macnamara, J. 1996, *Public Relations Handbook for Managers and Executives*, Information Australia, Melbourne. (First published 1984)
- Macnamara, J. 1992, *The Asia Pacific Public Relations Handbook*, Archipelago Press, Sydney.
- Macnamara, J. 1991, *Public Relations Handbook for Clubs & Associations*, Information Australia, Melbourne. (First published 1983)
- Macnamara, J. 1990, *The Australian Marketing & Promotion Handbook*, Information Australia, Melbourne.
- Macnamara, J. 1990, *How to give winning presentations*, Archipelago Press, Sydney.
- Macnamara, J. 1988, *Effective Marketing Communication and Promotion*, Information Australia, Melbourne.

Professional/Industry Research

Prior to his academic career, Professor Macnamara worked as a professional researcher and head of a media and communication research company for more than 10 years undertaking quantitative and qualitative studies using a range of methods for a range of government and private sector organisations including:

- CSIRO (analysis of public discourse on science in Australia)
- Land and Water Research and Development Corporation (quantitative and qualitative study of land owners' and users' attitudes towards water use) – described by Chairman Alec Campbell as “the best ever communication consultancy that LWRRDC ever did”
- AusAID (study of national and international perceptions of Australian aid and the role of media and communication in supporting effective aid programs)
- Australian Broadcasting Corporation (analysis of balance or bias in political election coverage)
- Australia Day Council of NSW (analysing representations of Australia Day)
- Australian Consumers Association (reputation study among key stakeholders);
- Department of Immigration and Citizenship (Harmony Day campaign evaluation)
- Biotechnology Australia (analysis of media representations of biotechnology);
- SAP (global reputation study)
- Microsoft (stakeholder surveys, media audits and media analysis in Australia and Asia);
- Citigroup Asia Pacific (media content analysis to track brand and competitors)
- UBS Asia Pacific (reporting to regional headquarters in Hong Kong)
- Volkswagen and Audi Asia Pacific (reporting to regional headquarters in Singapore);
- Singapore Telecom (media content analysis to track brand and reputation)
- Optus (brand tracking)
- Nokia Asia Pacific (media analysis reporting to regional headquarters in Singapore)
- Hewlett-Packard Asia (media analysis to track brand and product publicity)
- Infocomm Development Authority of Singapore (media analysis to track technology issues)
- Economic Development Board of Singapore (tracking Singapore's reputation)
- Climate change in Asia Pacific – a regional discourse analysis based on content analysis of news, editorials and columns in leading regional newspapers and blogs.

Employment – Positions Held

Academic (2007–):

- Professor of Public Communication, Faculty of Arts and Social Sciences, University of Technology Sydney (August 2007–); tenured since November 2010;
- Deputy Dean, Faculty of Arts and Social Sciences, University of Technology Sydney (1 July 2011–), including 2 months Acting Dean during absences of the Dean.

Professional (1970–2007):

- Group Research Director, **Media Monitors** (now iSentia) (2006–2007) incorporating CARMA International Asia Pacific founded by Dr Macnamara, which he sold to Media Monitors in January 2006 (see next role);
- Founder and CEO, **CARMA International (Asia Pacific)**, the regional franchise of the global media research firm, CARMA International (1995–2006);
- Founder & CEO of strategic communication consulting firm **MACRO Communication** (1985–1997);
- Consultant, then Deputy Manager, **Hill & Knowlton**, Sydney (1984–1985)
- Director of Public Relations, **National Farmers Federation**, Canberra (1980–1984);
- Public Relations Manager, **NSW Farmers Association** (1978–1979);
- **A-Grade journalist** with Rural Press (*The Land* and *Country Life*), Sydney (1976–1978);
- Public Relations Officer, **Australian Army**, Sydney (1974–1975); **Department of Defence**, Canberra (1976);
- Trainee and freelance journalist (1970–1972) with Queensland country newspapers.

Notes

- ¹ Order in Council for Appointment of a Board of Inquiry in the Hazelwood coal mine fire issued under the Constitution Act 1975 on 21 March 2014 by His Excellency's Command.
- ² E-mail by Professor John Catford to Professor Jim Macnamara of 6 May 2014, 8.07 pm.
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- ⁴ Institute for Crisis Management. (2008). Crisis definitions. Author. Retrieved from http://www.crisisexperts.com/crisisdef_main.htm
- ⁵ Lerbringer, O. (1997). *The crisis manager: Facing risk and responsibility*. Mahwah, NJ: Lawrence Erlbaum, pp. 10–15 .
- ⁶ Coombs, W. (Timothy). (2004). Impact of past crises on current crisis communications: Insights from: Situational crisis communication theory. *Journal of Business Communication*, 41, 265–289.
- ⁷ Hayes, D., Hendrix, J., & Kumar, P. (2013). *Public relations cases* (9th ed.). Boston, MA: Wadsworth, p. 348.
- ⁸ Hayes, Hendrix & Kumar, p. 349.
- ⁹ Council of Australian Governments. (2011). *National Strategy for Disaster Resilience*. Canberra, ACT: Commonwealth Government. Retrieved from <http://www.em.gov.au/Documents/1National%20Strategy%20for%20Disaster%20Resilience%20-%20pdf.PDF>
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- ¹² Coombs, W. (Timothy), p. 173.
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- ¹⁶ Coombs, W. (Timothy). (2014). *Applied crisis communication and crisis management: Cases and exercises*. Thousand Oaks, CA: Sage.
- ¹⁷ Crilley, J. (2003). *Free publicity: A TV reporter shares the secrets of getting covered on the news*. Dallas, TX: Great Impressions, p. 80.
- ¹⁸ Rogers, E. (1995). *Diffusion of innovations* (4th ed.). New York, NY: Free Press. (Original work published 1962)
- ¹⁹ Grunig, L., Grunig J., & Dozier D. (2002). *Excellent organisations and effective organisations: A study of communication management in three countries*. Mahwah, NJ: Lawrence Erlbaum.
- ²⁰ Benoit, W. (1995). *Accounts, excuses, and apologies: A theory of image restoration strategies*. New York, NY: State University of New York Press.
- ²¹ As cited in Coombs, W. (Timothy). (2014), p. 10.
- ²² Macnamara J. (2012). *Public relations theories, practices, critiques*. Sydney, NSW: Pearson Australia.
- ²³ *Australian Journal of Emergency Management*, 10(1). (1995). As cited in Nicholls, S., & Glenny, L. (2005). Communicating for recovery: A case study in communication between the Australian Capital Territory Government and the ACT community after the ACT bushfires, January 2003, in C. Galloway & K. Kwansah-Aidoo, *Public relations issues and crisis management* (pp. 41–58). Southbank, Vic: Thomson Social Science Press
- ²⁴ Sheppard, B., Janoske, M., & Liu, B. (2012, May). *Understanding risk communication theory: A guide for emergency managers and communicators*. Report to the Human Factors/Behavioural Sciences Division, Science and Technology Directorate, US Department of Homeland Security. College Park, MA, p. 3.
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- 28 Bates, D. (2010, August 30). BP accepts blame for Gulf of Mexico spill after leaked memo reveals engineer misread pressure reading. *Mail Online*, Dailymail.co.uk, London. Retrieved from <http://www.dailymail.co.uk/news/worldnews/article-1307439/BP-accepts-blame-Gulf-Mexico-spill-leaked-memo-reveals-engineer-misread-pressure-reading.html>
- 29 BP boss Tony Hayward in another 'PR disaster' (2010, June 20). *News.com.au*, Business. Retrieved from <http://www.news.com.au/business/bp-boss-tony-hayward-in-another-pr-disaster/story-e6frfm1i-1225881910118>
- 30 Galloway, C., & Kwansah-Aidoo, K. (2005). *Public relations issues and crisis management*. Southbank, Vic: Thomson Social Science Press.
- 31 ACT Government. (2003). *ACT Bushfire Recovery Taskforce action plan*. Canberra, ACT, p. 4
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