



## **GROUP STEERING COMMITTEE MINUTES**

Report of the ordinary meeting of the Lifelines Group Steering Committee held at the Powerhouse Café, 401 Ariki Street, Karapiro at 10.00 am on Friday, 25 March 2011.

### **MEMBERS:**

**WEL Networks**

Alan Harrop

**South Waikato District Council**

Roger Fisher

**Matamata Piako District Council**

**New Zealand Transport Agency**

**Environment Waikato**

Adam Munro

**Waipa District Council**

**Genesis Energy**

Bill Ashurst (Chairperson)

**Ministry of Civil Defence Emergency Management**

Suzanne Vowles

**Vodafone**

Peter Carr

### **IN ATTENDANCE:**

John Harris  
WELG Project Manager

John Hughes  
Transpower

Susanne Frischknecht  
Matamata-Piako DC

Charles Banks  
Vector gas

Debbie Chapman  
Bay of Plenty Regional Council

Ainsley Alexander  
Environment Waikato

Dave Beet  
Chorus

Steve McLennan  
Waipa Networks

Brian Grey  
NZTA

Chris Wisnewski  
Mighty River Power

Dave Lovatt  
Environment Waikato

Ken Gibb  
Genesis Energy

Ken Thompson  
Hauraki DC

Mac McIntyre  
Counties Power

Ian Wellings  
South Waikato DC

Chris Carter  
Waikato DC

Nigel Brown  
Unison

Denis Lewis  
Taupo DC

Christiaan Van Rooyen  
Waitomo DC

Clayton Oldham  
Rotorua DC

Tony Fenwick  
National Engineering lifelines Cttee

## **APOLOGIES:**

Keith Patey  
Transpower

Lyall Duffus  
Mighty River Power

Richard Bax  
Waikato DC

Martin Gould  
Otorohanga DC

Bruce Hinson  
Thames Coromandel DC

Leroy Leach  
Mighty River Power

Joanne Frederick  
The Lines Company

Andrew De L'Isle  
KiwiRail

Glen McIntosh  
Waikato DC

Brad Scott  
GNS Science

Mark Constable  
MCDEM

John Whittle  
Thames Coromandel DC

Derek Todd  
Counties Power

## **PRESENT:**

Bill Ashurst  
Genesis Energy

Roger Fisher  
South Waikato DC

Alan Harrop  
WEL Networks

Peter Carr  
Vodafone

**Future Meeting Dates:**

Friday 1 July 2011	Annual Seminar plus AGM
Friday 28 October 2011	Ordinary meeting
Friday 24 February 2012	Ordinary meeting
Friday 22 June 2012	Ordinary meeting

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- 1 Apologies**
- 2 Introductions**  
*Brief introduction by attendees*
- 3 A moment of reflection for our colleagues and the people of Christchurch**
- 4 Workshop**
  1. *How did your utility react to the disastrous event on 22 February 2011 in Christchurch*
  2. *How would your utility react to a similar event in Hamilton or the greater Waikato Region*
- 5 Presentation**  
*"Call centre crisis" presentation by Peter Carr (Vodafone) on the impact of the recent uprising in Egypt on their major call centre & how they were able to maintain their operations*
- 6 Late items for General Business**
- 7 Minutes of Previous Meeting**
- 8 Correspondence**  
*Inwards and outwards correspondence*
- 9 Project Managers Report**  
*Brief report on activities since the previous meeting.*
- 10 Key Project Updates**  
*An update on the Waikato Engineering Lifeline Group's Projects*
- 11 Members Updates**  
*Verbal reports on issues relating to their respective utility sectors*
- 12 CDEM Group Update**  
*Update on the CDEMG issues/activities/initiatives*
- 13 Pandemic**  
*General update*
- 14 Items of Interest including climate change**  
*General update on climate change & other items of interest*
- 15 General Business**
- 16 Site visit**  
*A site visit to the Karapiro Dam has been arranged for after the meeting and participants who will be attending are advised that entry to the site is **subject to wearing strong fully enclosed footwear**. It may also be a good idea to bring your hi-vis jackets.*
- 17 Next Meeting**

# Workshop Friday 25 March 2011

The objectives of the workshop are:

- a. Identify means of improving preparedness to assist emergency events outside the Waikato Region, e.g. national database of available specialist materials on a national basis, i.e. water pipe valves, sewage pumps, power poles, fibre-optic cable, portaloos, etc.
- b. Identify areas where resilience or preparedness could be improved, including interdependencies with other utilities which may have a significant impact on your utility's ability to operate, e.g. access, electricity, fuel, etc.

**These are simply prompts to facilitate discussion at the workshop.**

**1. How did your utility react to the September and February 2011 earthquake disasters in Christchurch?**

Was your utility directly or indirectly affected?                      **Yes**                      **No**

If **yes**, how was it affected? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If **yes**, how did your utility respond? (human, plant & material resources, etc.):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If **no**, did your utility respond anyway?                      **Yes**                      **No**

If **yes**, how did your utility respond? (human, plant & material resources, etc.):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Are there limits on your ability to provide assistance? i.e. impacts on your ability to operate effectively.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**2. How would you react to similar events in Hamilton or the greater Waikato Region?**

Would your utility be directly or indirectly affected?                      **Yes**                      **No**

If **yes**, how would it be affected? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If **yes**, how would your utility respond? (human, plant & material resources, etc.):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If <b>no</b> , would your utility respond anyway?	<b>Yes</b>	<b>No</b>
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If yes, how would your utility respond? (Provide human, plant & material resources, etc.):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Are there constraints on your ability to provide assistance? i.e. impacts on your ability to operate effectively.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

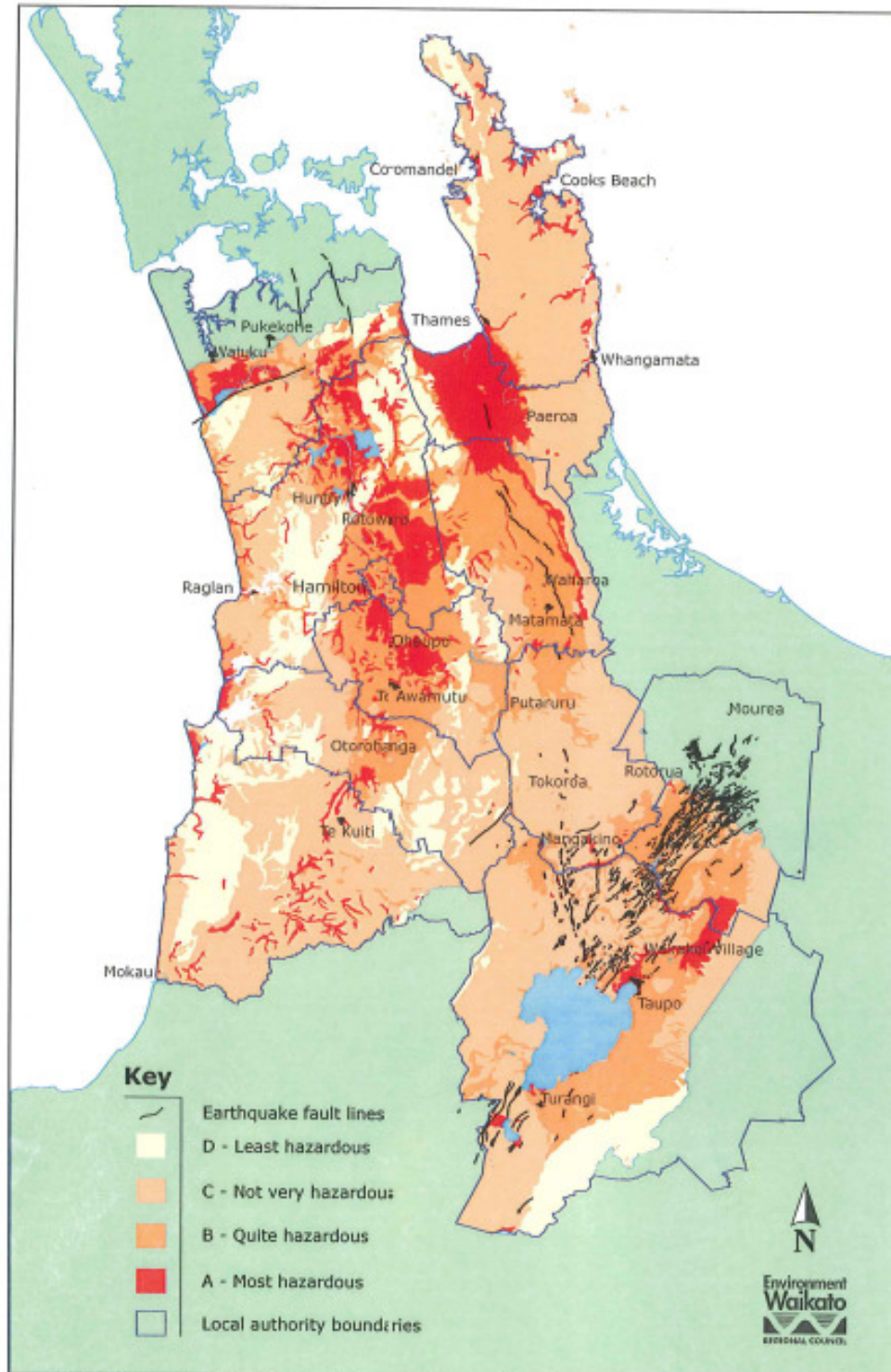
It is intended that the workshop will be only be for about 45 minutes and is part of the overall Utility Vulnerability Project but utilising the experiences of these two recent disastrous events to reduce the impacts of similar events in the future.

Figure 1 below is a broad indication of the location of known fault lines and identification / rating of areas throughout the Region in terms of degrees of hazard to assist you in identifying potential impacts.

Copyright and Disclaimer Information (Date of Publication: March 1, 2003) This map has been prepared using data supplied by the Institute of Geological and Nuclear Sciences under contract to Environment Waikato. Unless otherwise agreed in writing, all liability of the Institute to any party other than Environment Waikato in respect of the map is expressly excluded. The information portrayed on this map at a scale of 1:50,000 is to be used for emergency management, educational and/or evacuation purposes only and is not to be used for land use planning. The information contained in this dataset and/or map is correct at the date of verification only. Date of verification is September 1996. Earthquake hazard data compiled and mapped by Institute of Nuclear and Geological Science under contract to Environment Waikato. COPYRIGHT RESERVED. The presence of an earthquake hazard zone on the map does not guarantee the existence of such a hazard, nor does the lack of information on either map preclude the existence of a hazard or risk. Environment Waikato, while providing the

information in good faith, accepts no responsibility for any loss, damage, injury, or loss in value of any person, property, service or otherwise resulting from flood hazards or knowledge of flood hazards in the Waikato Region.

**Figure 1**



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**Geological units and hazard zones**

Geological materials in the Environment Waikato Region have been classified and mapped into four units for this study. These units are used to define hazard zones. It is important to note that the data have been both compiled and digitised at 1:50,000 scale. The accuracy of the hazard zone boundaries is therefore much less than that of the fault locations.

Verification of source data has been via Environment Waikato-commissioned GNS reports. The four units, in order of decreasing hazards are:

- Unit A - most hazardous: Holocene (less than 10,000 years old) river, lake, fan and swamp deposits and near coastal estuarine and beach deposits. Commonly high in volcanic ash content. These deposits comprise unconsolidated, very soft to stiff intermixed peat, clay, silt, ash, sand and gravel. The groundwater table generally very high. May include liquefiable layers. Critical thickness of sediments 2-15 m. Amplification of approximately two MMI units and/or settlement and liquefaction common.
- Unit B - quite hazardous: Quaternary (less than 2.5 million years old) river and marine terrace deposits, lignite, dune sand, pumice alluvium (gravel) and ignimbrite (volcanic rock) flows. Unsaturated, slightly weathered, unconsolidated gravel, ash and sand. Amplification of approximately one MMI unit common.
- Unit C - not very hazardous: Tertiary (less than 75 million years old) sandstone, siltstone, mudstone, coal measures, limestone, and conglomerate. Includes volcanic rocks of various ages. Dense to very dense gravel material. Rock strength is weak to moderately strong. Fine grained rocks are particularly prone to slumping and landsliding, especially if saturated and/or without of vegetation cover.
- Unit D - least hazardous: Basement rocks, (more than 75 million years old), greywacke (dark, coarse-grained sandstone). Generally made up of hardened, well bedded, sandstones and siltstones (which are moderately to highly deformed) and minor schist. Weak to very strong.

## **Apologies**

(Agenda Item 1)

As recorded on page 2

## **Introductions**

(Agenda Item 2)

The following attendees were welcomed to the meeting:

Chris Carter	Waikato DC
Tony Fenwicke	National Lifelines
Ian Wellings	South Waikato DC
Christiaan Van Rooyen	Waitomo DC
Mac McIntyre	Counties Power
Denis Lewis	Taupo DC
Ken Thompson	Hauraki DC
Joanne Frederick	The Lines Company
Dave Lovatt	Environment Waikato
Susanne Frischknecht	Matamata-Piako DC
Ken Gibb	Genesis Energy

## **Brief moment of reflection for our colleagues and the people of Christchurch**

(Agenda Item 3)

Attendees at the meeting held a minutes silence to reflect on the effects on people by the catastrophic event in Christchurch.

## **Workshop**

(Agenda Item 4)

The workshop was very successful, with the subject understandably dominating the meeting.

The attendees were divided into five mixed utilities breakout groups and asked to use the questionnaire, copy attached to the minutes, as a guideline and to discuss the impacts on their respective utilities.

General comments reported at the feedback portion of the workshop include:

- Helpful to reflect on what we would do
- Transpower damage was rectified in about 6 hours with their contractors being self-motivated to undertake inspections of the network
- Vodafone damage was relatively light, especially as the critical node was in the Christchurch CTV building but they were able to reroute the calls within 2 days, but it emphasised the importance of generators for emergency backup power.
- This demonstrated the advisability of the main node being in a purpose built building
- Vodafone has minimal equipment in the Waikato and this was of some concern to them.
- It was important to remember, and take into consideration, that staff have families that they will be concerned about. Some staff were encouraged to go home and check on their families
- Importance of having a staff skills register and ensuring that the appropriate training is provided
- Ensuring that your utility has the resilience to handle its own commitments when allocating staff to assist in other emergency events
- Territorial Authorities sent building inspectors and search and rescue teams but admitted that they would be stretched if a local disaster occurred at the same time
- This was repeated by the electricity industry, especially as the time span is significant

- General lack of coordination in terms of utilities
- Contracting out activities was recognised as having both positive and negative effects and was dependent on whether they were local or national companies
- It is necessary to thoroughly brief staff being sent into disaster areas, especially if they have not experienced it before, as the stresses are significantly higher
- Transpower still had cable locating people in Christchurch, a month after the event
- A number of Waikato utilities opened their incident control centres to brief staff
- Necessity of sending resources with staff so that they are self-contained and do not require local resources, accommodation, etc.
- It was recognised that the building skyline in Hamilton was generally lower than Christchurch thus the effects of a similar quake but may be less
- Conversely it was recognised that a similar quake in Auckland would have a significantly greater effect
- There was a statement that since the September earthquake, Christchurch was more prepared for the February quake
- Encourage people to keep the telecommunications systems free and for emergency use only
- Issues with liveness shut down gas lines without fire fighting resources being available
- Genesis sent staff to check individual properties and were, in some instances, the first people that the occupants had seen. Because of this, it is essential to send people with good interpersonal skills
- Fuel identified as a key factor and issues related to access and liquefaction problems with the underground tanks, as well as power outages
- Food supplies key issue, especially if the roading network is severely damaged
- Subdivisions may be a resource that requires consideration, even to identifying appropriate land in advance
- There is a need to plan for recovery

### **Presentation**

(Agenda Item 5)

Peter Carr gave a very interesting and relevant power point presentation on the Call Centre Crisis in Egypt during the recent uprising.

If anybody would like a copy of Peter's presentation, please contact him direct on [peter.carr@vodafone.com](mailto:peter.carr@vodafone.com)

### **Late items for General Business**

(Agenda Item 6)

Nil

### **Minutes of Previous Meeting**

(Agenda Item 7)

Taken as read

#### **Matters arising**

Nil

Actions: Nil

**RESOLVED:**

- (1) That the minutes of the Ordinary Steering Group Meeting on Friday 3 December 2010 be received and adopted as a true and correct record.

Alan Harrop / Peter Carr  
Carried

### **Correspondence**

(Agenda Item 8)

#### Inwards

- Emails relating to the development of the Vulnerability Map
- Numerous administrative emails
- Request from Unison on information on liquefaction in the Waikato Region

#### Outward

- Agenda and Minutes
- Emails of administration for the Vulnerability Map
- Numerous administrative emails
- Emergency Communication Plan USB sticks
- Letter to Director, MCDEM re Annual Lifelines Seminar
- Letter to Hugh Vercoe re Annual Lifelines Seminar

Roger Fisher / Bill Ashurst  
Carried

### **Project Manager's Report**

(Agenda item 9)

John Harris presented the Project Manager's Report.

#### **RESOLVED:**

- (1) That the report titled "**Project Manager's Report**" be received for information

Roger Fisher / Bill Ashurst  
Carried

### **Key Project Updates**

(Agenda Item 10)

John Harris presented the report titled "**Key Project Updates**"

Roger Fisher / Bill Ashurst  
Carried

### **Members Updates**

(Agenda item 11)

Tony Fenwick gave a brief update on the situation in Christchurch, with specific comments on lifeline utilities as outlined below:

- Electricity – major network and substation problems
- Generators now in place but the network is fragile
- Gas network largely unaffected and shut down automatically
- Petroleum usable
- Potential problems with fire fighting due to breaks in the water supply network
- Problems with telecommunications, some due to overloading of the network

- Road access a major issue, especially for cell site restoration
- High level of cooperation between telecommunication companies
- 30kph speed restriction imposed on part of the roading network
- Sewage a major problem caused by liquefaction, resulting in displaced manholes and pipes with a significant amount discharging into the rivers
- Stormwater damage, similar to sewage network

The second version of the National Infrastructure Plan is planned to be released by Treasury in June. The draft includes a brief section on infrastructure resilience. Treasury believes that there is insufficient knowledge about major infrastructure risks at the national level. The subject of interdependencies does feature in the draft document.

Link to National Infrastructure Plan [nip-mar10.pdf \(1.385 KB\) pp. 141](#)

### **CDEM Group Update**

(Agenda Item 12)

Nil

### **Pandemic**

(Agenda item 13)

John Harris presented the report titled “**Pandemic**”.

### **Items of Interest including Climate Change**

(Agenda item 14)

John Harris presented the report titled “**Items of Interest including Climate Change**”.

### **General Business**

(Agenda Item 15)

Nil

### **Site visit**

(Agenda Item 16)

A very interesting site visit was made to the Karapiro hydro dam and included the museum section which provides a lot of history of the area.

### **Next Meeting**

(Agenda Item 17)

The next ordinary meeting of the Lifelines Steering Committee will be at **10.00am Friday 28<sup>th</sup> October 2011**, venue to be determined. Please forward any agenda items, or offers to host a meeting, to Bill Ashurst or John Harris.

The meeting finished at 12.45pm.

# Report to Lifelines Group Steering Committee

**Date:** 3 March 2011  
**To:** Steering Committee Members  
**From:** Lifelines Project Manager  
**Subject:** **Project Manager's Report**

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## Purpose

To report on the Project Manager's activities since the previous report dated 31 October 2010.

## Time Involvement in WELG (2010/2011)

Total hours worked in July 2010	53.00
Total hours worked in August 2010	31.75
Total hours worked in September 2010	32.75
Total hours worked in October 2010	26.75
Total hours worked in November 2010	37.25
Total hours worked in December 2010	34.75
Total hours worked in January 2011	14.50
Total hours worked in February 2011	24.50
<b>Total:</b>	<b>255.25 hours</b>

## Activities

- General Administration and keeping up to date with lifeline related information.
- General correspondence relating to the Waikato Engineering Lifelines Group
- Preparation of Steering Committee Meeting minutes and agendas
- On-going development of the Utility Vulnerability Map
- Initial preparations, including setting venue and approaches to possible presenters
- On-going involvement with Emergency Communications Plan
- Review of CDEMG submission on the EW Proposed Regional Policy Statement

## Project Manager Expenditure:

An expenditure spreadsheet outlining 2010/2011 expenditure to date will be presented at the meeting.

## Recommendation:

- (1) That the report titled "**Project Manager's Report**" be received for information.

John Harris

**Lifelines Project Manager**



# Report to Lifelines Group Steering Committee

**Date:** 3 March 2011  
**To:** Steering Committee Members  
**From:** Lifelines Project Manager  
**Subject:** **Key Projects Updates**

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## **Purpose**

To report on the status of the Lifelines Group projects

## **Communications Plan**

This is a project constantly under review and is totally reliant on the respective utilities keeping the WELG Project Manager informed of any changes to emergency contact details.

An update has recently been sent by email to all holders of the USB Document with the intention that Document Holders simply copy and paste the alterations onto their existing electronic copy.

There have been several suggestions as to how the updating process can be streamlined, including resending the entire updated document by email. It would be of benefit to discuss this at the meeting but keeping in mind that a significant number of the utility contacts were provided on the strict proviso that they be for emergency use only and not to be accessible to the public.

## **Regional Climate Change Impact Project**

As indicated at previous meetings, no further work will be carried out on this project until critical sites have been identified and the effects of climate change on the sites will form part of the risk assessment process.

## **Pandemic**

The Group continues with the dissemination of information on the potential Avian Flu Pandemic, predominately through individual contacts and Steering Group Meetings. The Project Manager is a member of the Pandemic working party and thus provides a vehicle for information to pass to and from the utilities.

## **Utility Vulnerability Assessment & Prioritisation Project**

Although not all information has been received, particularly the tabular information, the Utility Vulnerability Map has been completed and a grid analysis is currently being carried out to identify potential critical sites where two or more utility networks coincide within a 50 metre grid. For those agencies/authorities that have not provided the relevant information, it would be appreciated if you could contact the WELG Project Manager as soon as possible so that it can still be included in the process but not necessarily incorporated in the map.

The Hamilton Utility Vulnerability Map has not been closed off at this stage and it is intended to concentrate on the Waikato Region at this stage, and then concentrate on the completion of the Hamilton map.

To reiterate the previous key projects update report, the immediate goal of this project is to have 5 – 10 critical sites identified and reported on by the Annual Seminar in July 2011. The consequences of failing to obtain a

specific critical site through lack of appropriate information may have severe consequences during an emergency event, both to the Region and to individual utilities. Christchurch has been a very serious reminder that planning for events is essential irrespective of whether the occurrences may be unlikely, and this has being dramatically reinforced by the more recent Christchurch Earthquake.

### **Fuel Supply Project**

No further work has been carried out on this project apart from the fuel outlets being included on the Utility Vulnerability Map as part of the identification of priority/alternate routes. The project is being reactivated, with the first priority being to identify service stations that can operate without power, especially in Hamilton City.

### **Alternate Routes Project**

This project is being developed simultaneously with the Utility Vulnerability and Fuel Supply Projects.

### **Business Plan**

The 2007 – 2012 Business Plan was completed and signed off in October 2007 and it should be noted that while potential future projects have been identified, priorities change and the WELG should keep abreast of issues in order to provide maximum benefit to both the CDEM Group and the Utility Companies/Agencies.

One subject that has long been on the distant radar, but not formally followed up, is the subject of liquefaction. Liquefaction is not new but has certainly become a topic of intense interest to everybody. It may be worth pursuing as a Lifelines Project as it has a significant direct impact on utility services and networks, noting that a lot of investigation has already been carried out by various companies/agencies. An initial scope would be to track the various pockets of available information to identify areas where information is sketchy, unreliable or non-existent. This would probably need to be a joint project with other agencies, similar to the early Climate Change Project.

### **Annual Seminar**

In terms of the arrangement with Bay of Plenty Lifelines Group, the joint 2011 Annual Seminar is being held in the Waikato Region and a venue has been booked at the Hamilton Airport Conference Centre for Friday 1<sup>st</sup> July 2011. The opening speaker has been confirmed but the letter to invite a guest speaker was immediately prior to the Christchurch Earthquake and, understandably, no reply has been received at this stage. The theme is the Rugby World Cup and the ability for the Region to handle a disaster event during the 7 week period. The Waikato AGM will be held immediately after the Seminar.

### **Recommendation:**

- (1) That the report titled “**Key Project Updates**” be received for information.

John Harris

**Lifelines Project Manager**

# Report to Lifelines Group Steering Committee

**Date:** 3 March 2011  
**To:** Steering Committee Members  
**From:** Lifelines Project Manager  
**Subject:** **Pandemic Flu Status**

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## Purpose

To provide an update on the status of the Pandemic Flu

## Update

**NOTE: Control + click on [blue](#) references to follow the link for more detailed information.**

## Media Release

### Influenza update - 25 February 2011

Update number 128

### Summary

Influenza activity is increasing in parts of North America coincident with increasing numbers of detections of influenza A(H1N1)2009 and influenza type B, though the dominant virus in North America is still currently influenza A(H3N2). Rates of pneumonia and influenza mortality in the United States of America (USA) have remained above the epidemic threshold for the past two to three weeks. Transmission of influenza appears to have peaked in much of Western Europe, though case counts of severe and fatal cases continue to accumulate. The appearance of severe cases in Europe is similar to the 2009-2010 season; the highest number have been in the age group from 15-64 years, 60-70% have a pre-existing medical condition associated with increased risk of severe influenza, and most have not been vaccinated. Transmission in tropical zones of the world is sporadic (the Americas) or low (tropical Asia). Countries in the southern temperate zone have little influenza activity; however Australia continues to have transmission of influenza A at low-levels. The majority of the viruses characterized from North America and Europe are closely related to the vaccine viruses for the current seasonal vaccines, though small numbers of influenza type B of the Yamagata lineage are reported in both regions.

### Countries in the temperate zone of the southern hemisphere

The countries in the southern temperate regions of the world continue to have very little influenza transmission since the end of their winter season. Australia, however, continues to report out-of-season, low level detection of influenza A(H3N2) with lower numbers of influenza A(H1N1)2009.

### Avian influenza – situation in Indonesia

*2 March 2011* - The Ministry of Health of Indonesia has announced a new confirmed case of human infection with avian influenza A (H5N1) virus.

A 26 year old female from Karawang District, West Java Province developed symptoms on 30 January. She was hospitalized on 3 February, and was treated with oseltamivir, but died on 8 February.

Laboratory tests have confirmed infection with the H5N1 avian influenza virus.

Of the 172 cases confirmed to date in Indonesia, 142 have been fatal.

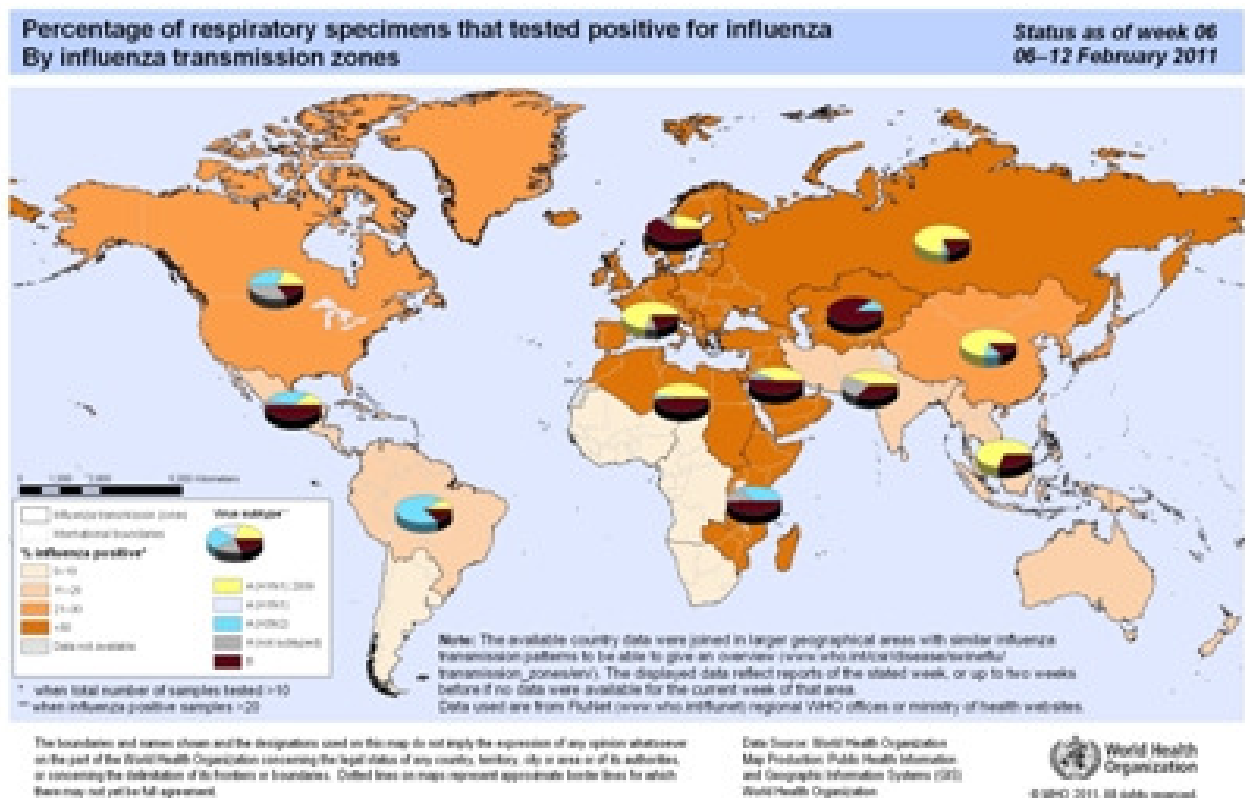
### Avian influenza – situation in Cambodia - update

25 February 2011 - The Ministry of Health of Cambodia has announced 2 new confirmed cases of human infection with avian influenza A (H5N1) virus.

A 19-year-old female, from Takong village, Ta Kong commune, Malay district, Banteay Meanchey Province, developed symptoms on early hours of 5 February, was admitted to a private clinic on 9 February, referred to a hospital on 12 February, and died on 12 February without avian influenza being considered as a diagnosis. The 11-month-old son developed symptoms on 5 February, was admitted to hospital 15 February and died on 17 February.

Of the 13 cases of human H5N1 virus infection confirmed since 2005 in Cambodia, 11 have been fatal.

Departmental Media Releases



- [Open map in new window jpg, 1.33Mb](#)

### Legionnaires' disease alert to travellers from Bali

Australia's Chief Medical Officer, Professor Jim Bishop, has issued an alert to travellers in Bali or who have recently returned, who experience 'flu-like' symptoms such as fever and cough to consult their GPs or hospital emergency departments.

[Printable version of Legionnaires' disease alert to travellers from Bali \(PDF 66 KB\)](#)

### Recommendation:

- (1) That the report titled "**Pandemic Flu Status**" be received for information.

John Harris

**Lifelines Project Manager**

# Report to Lifelines Group Steering Committee

**Date:** 3 March 2011  
**To:** Steering Committee Members  
**From:** Lifelines Project Manager  
**Subject:** **Items of Interest including climate change**

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## Purpose

To provide a general update on climate change & other items of interest

**NOTE: Control + click on blue underlined or orange references to follow the link for more detailed information and maps.**

## Climate change publications

<http://www.mfe.govt.nz/publications/climate/>

## Recent MfE Publication:

### Tools for Estimating the Effects of Climate Change on Flood Flow

#### A Guidance Manual for Local Government in New Zealand

The main aim of this guidance manual is to help local authority staff – including river managers, engineering staff and asset managers – to manage and minimise the risks posed by increased flood risk due to climate change. More specifically, the manual provides good practice guidance for incorporating climate change impacts into flow estimation. It does this by providing:

- information on the key effects of climate change on flood risk,
- methods for estimating changes in the frequency and/or magnitude of rainfall,
- methods for converting changes in rainfall to changes in flow rate,
- methods for converting changes in flow rate to changes in inundation,
- some case studies to illustrate these methods

#### Executive Summary

##### Purpose

The main aim of this guidance manual is to help local authority staff – including river managers, engineering staff and asset managers – to manage and minimise the risks posed by increased flood risk due to climate change. More specifically, the manual provides good practice guidance for incorporating climate change impacts into flow estimation. It does this by providing:

- information on the key effects of climate change on flood risk
- methods for estimating changes in the frequency and/or magnitude of rainfall
- methods for converting changes in rainfall to changes in flow rate

- methods for converting changes in flow rate to changes in inundation
- some case studies to illustrate these methods

The manual offers a list of options but is neither exhaustive nor prescriptive. In other words, it is not a handbook for flood estimation or flood risk management.

This guidance manual has been used as a primary source of information for a summary document, *Preparing for future flooding: A guide for local government in New Zealand*. *Preparing for future flooding* also shows how you can consider the consequences of future flood risk in a risk management framework and highlights options and principles for managing future flood risk.



May 2010, Ref. ME 1013

[Download PDF \(1.7 MB\)](#)

*Excerpts from a speech by Environment Minister Nick Smith to the Second Annual Fresh Water Management Forum, Amora Hotel, Wellington on 15 February, 2011*

## Introduction

Thank you for the invitation to address the Second Annual Fresh Water Management Forum which I have titled Fresh water reform: a work in progress.

While the debate over water can be passionate at times, the fact that such a broad spectrum of people are here only underlines the commitment all of us have to getting water management right.

This afternoon I want to take the opportunity to broadly talk about three areas: the importance of water management in New Zealand; the challenge we are facing; and the Government's programme of water reform.

## The importance of freshwater

It will come as no surprise to anyone here that improving how New Zealand manages fresh water is an important part of the Government's economic and environmental priorities.

The importance of fresh water – both to our economy and the environment that the economy is based upon – cannot be overstated.

Fresh water is New Zealand's key strategic and productive asset.

It is what gives our \$11 billion a year dairy industry its competitive advantage. It is pivotal to our clean, green brand and our \$8 billion a year tourism industry. Add in the contribution to our meat, horticulture, cropping, freshwater aquaculture and wine industries and we are looking at more than \$30 billion per annum.

It is also the resource that literally powers our economy – with hydro accounting for between 60-70% of all electricity generated in New Zealand.

Water is to New Zealand what minerals are to Australia. Managed wisely, our fresh water resource, unlike minerals, will be available for generations to come.

But fresh water is so much more than just a commodity. It has cultural significance to Maori. It is also what makes our great kiwi lifestyle - the fishing, swimming, kayaking and rafting.

It's fundamentally what makes New Zealand the country that it is.

### **The challenge**

On an international scale New Zealand's water quality is very good. The 2010 Yale and Columbia University Environmental Performance Index ranks us second in the world only to Iceland with a water quality index of 99.2 out of 100.

However, this is not to say we do not have water quality issues. Many of our lowland streams and our shallow lakes, especially in areas of intensive farming, have significantly deteriorated.

The problem is that water has been so plentiful that in the past we have not had to be too sophisticated in how we have allocated or managed it.

And now there is accumulating evidence that our current system of water management is failing – to the detriment of both our economy and environment.

It is apparent that some regional councils are struggling to manage localised pressures on the quality and quantity of freshwater.

These pressures are particularly evident in lowland regions where there is significant irrigation, intensive land use and legacy issues from urban and rural development.

In some parts of New Zealand we are already exceeding the amount of water that can be taken from our rivers, lakes and groundwater. We are also seeing deteriorating water quality in some of these water bodies.

In addition the current water management system is imposing unnecessary costs associated with inefficient use of fresh water, delayed and forgone development, and extended litigation.

However, the problem with the current water management system does not principally lie with the fundamentals of the resource management framework – but instead with processes and practices developed around it.

The Resource Management Act itself allows for good water management – although it has been far more successful in dealing with point source pollution than diffuse cumulative pollution. A key deficiency has been central and local government not making full use of the instruments available under this framework.

In some cases Central Government has not provided the requisite guidance and direction to local government. In fact in the last 20 years since the RMA became law – no National Policy Statements and only one National Environmental Standard have been issued on water.

Regional councils also have a mixed record. Of the 17 regional councils, only four have a complete set of operative or proposed quality limits and flow regimes, only eight have numeric limits for water quality and just half have an allocation regime.

### **Government's focus**

It is clear that reform is needed on how we as a country manage our freshwater resources. That is why the Government is taking a fresh lead.

The Government's programme is about finding durable solutions to issues of water quality, allocation and storage which are essential to a healthy environment and economic growth.

This is in keeping with the Government's bluegreen belief that economic growth and improving the environment can and must go hand in hand.

Before I talk about the Government's wider water reform programme, I would like to mention four specific areas where we have made good progress in the last two years.

First, the National-led Government has committed to investing \$94 million over five years cleaning up Lake Taupo, Lake Rotorua, Lake Rotoiti and the Waikato River. This contrasts with just \$16.5 million spent over the five years prior to 2009.

Secondly, we've doubled the funding for the New Zealand Landcare Trust to \$800,000. This will enable the Trust to expand and grow its successful land management work and help support further community initiatives to improve water quality.

Thirdly, with water you can't manage what you don't measure. That's why in April last year I announced new regulations requiring all significant water takes to be metered within a relatively short timeframe.

The regulations require all water takes of more than 20 litres a second to be metered within two years, water takes of more than 10 litres a second to be metered within four years and water takes of more than 5 litres a second to be metered within six years.

This means that by 2016, 98% of all water takes by volume will be metered as compared to 31% at the moment.

Economic analysis shows that water use is worth more than \$5 billion per year to the economy and only a small improvement in efficiency will make this investment of about \$30 million in water meters well worth while.

Fourthly, Government intervention in appointing commissioners to Environment Canterbury has seen significant progress made on fresh water. It was a huge indictment that 19 years after the Resource Management Act was passed there was no operative regional water plan in a region dependent on water for its survival.

Had the Government not intervened in Environment Canterbury, our advice was that a water plan for Canterbury would have been at least three to four years away, probably longer. No Government serious about improving water management could turn a blind eye to this.

Our special legislation and the work of the Commissioners should produce an operative plan this year.

## **Water Reform**

I want to now move to the issue of water reform.

In 2009, the Government embarked on its New Start for Fresh Water programme.

The programme has three main elements: engagement with iwi; an officials work programme that includes development of a National Policy Statement on Freshwater; and the one most of you will be familiar with – the Land and Water Forum. It is the Land and Water Forum that I would like to talk more about today.

This Government favours a collaborative approach to dealing with the complex environmental problems facing New Zealand.

All too often the focus is on the environmental issues which divide us, while ignoring the values and beliefs we mutually hold.

Sector groups, both industry and environmental, have often tended to take extreme positions in the hope that it will move the balance their way.

This approach ignores the indisputable fact, that environmental policy can only be effective if pursued consistently over the long term.

No one ends up getting everything they want. Issues tend to be endlessly debated in expensive and lengthy litigation proceedings while the environment continues to degrade.

The Land and Water Forum process has proved that it doesn't need to be that way and has validated the new approach we were seeking.

Its mission was to build a consensus view on the best mix of economic, environmental, cultural and social benefits from New Zealand's water.

I stated at the time, that if agreement could be reached, even on just a few pressing issues, then it will enable us to make real progress.

It is an extraordinary achievement when 58 very diverse stakeholder groups can come together and agree on a way forward on such a vexed issue as freshwater management in New Zealand.

### **What has been learned?**

The Land and Water Forum has presented its comprehensive report to Government and is undertaking a nationwide public engagement process on its report.

The broad themes of its report are:

- 1 The water management system isn't fundamentally broken, but it isn't delivering the desired outcomes.
- 2 The major gap in the current system is no requirement to set, and manage limits in the amount of water that can be taken and the amount of contamination that can be released into water.
- 3 The setting and management of limits will be crucial to future economic and environmental success.
- 4 There needs to be more central Government support, and clearer expectations, to drive that process.
- 5 Central Government needs to play a stronger role in partnership with local decision-makers, including iwi
- 6 There is still a place for local-level involvement in the delivery of water decisions and management.

The Government will be formally responding to the report after the Forum finishes its public consultation.

### **The Future Direction**

Without pre-empting the outcome of the Forum's engagement or the decisions to be taken by Cabinet, it is likely any Government response will need to include:

- Support for responsible economic growth
- Improved environmental performance
- And clearer Government direction and regulatory framework

Changes of any significance will take time to achieve and therefore I expect a staged programme of reform.

The Government will need to decide after the Land and Water Forum finishes its engagement what initiatives can and should be progressed now and what initiatives will need more time to develop and implement.

A National Policy Statement or NPS on fresh water management is one such initiative to deliver stronger Government direction to local authorities.

While the Land and Water Forum has recommended the adoption of a NPS on fresh water, it proposed amending the one recommended by the Board of Inquiry.

I have been advised by officials that the version recommended by the Board of Inquiry is ultra vires — that is, it goes beyond what a national policy statement can do under the Resource Management Act.

That is why the Minister of Agriculture, David Carter, and I have asked our officials to work on a revised national policy statement, taking on board the recommendations of the Land and Water Forum.

While no decisions have been made, I expect the NPS would reflect the Government's overall approach of pursuing economic and environmental objectives together, taking into account recommendations from the Board of Inquiry and the Land and Water Forum.

However, we all agree that water management is a highly complex issue and is unlikely to be resolved by a single initiative like an NPS.

An NPS will therefore only be one part of a larger government package of reforms that will cover the four key elements of good fresh water management.

These are:

- 1 a robust governance system with the roles and responsibilities of all parties clearly defined
- 2 the capacity to identify the quality and quantity limit of fresh water bodies
- 3 the ability to set and enforce numeric limits on the quality and quantity
- 4 an efficient process for allocating the resource to users (including transferring entitlements between them) to ensure water is used in the best way

Cabinet will need to make some critical decisions this year to decide the direction of water reform, in response to the Forum's recommendations.

I expect major changes could then be decided in 2012, with opportunity for more public input into the direction before implementation over the next five years.

## **Conclusion**

This year is an exciting one for all parties interested in water management reform.

Full credit needs to be given to all of you who have been involved in the Land and Water Forum process.

As I have stated throughout this process, while the Government will work at pace to formulate a durable solution, we recognise that these issues are too important to rush.

To deal with these challenges, we need to make difficult decisions balancing the environment and the economy.

This Government is committed to robust reform of fresh water management and we look forward to continuing working with you all as our work progresses.

[Nick Smith](#)

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*Excerpts from a speech by Environment Minister Nick Smith 10 November, 2010*

## **Government requires metering to improve water management**

New regulations that take effect today requiring significant water takes to be metered are essential for New Zealand to better manage freshwater, Environment Minister Nick Smith says.

"We can't manage what we don't measure," Dr Smith said. "We know that over the past decade we have doubled the amount of water that can be legally taken from our rivers, lakes and aquifers to 450 million cubic metres per week. That is 18 Olympic-sized swimming pools every minute. We also know we are reaching resource limits in significant areas. We need to know how much water is actually taken and when if we are to properly manage New Zealand's hugely valuable freshwater resource."

The Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 take effect today and require all new water takes of more than 5 litres a second to be metered. Existing takes of more than 20

litres a second must be metered within two years (10 November 2012), those more than 10 litres a second must be metered with four years (10 November 2014) and all takes more than 5 litres a second within six years (10 November 2016).

"These regulations will hugely improve the information we have on water takes. We currently measure only 31% of allocated water. These regulations will increase this to 92% in 2012, 96% in 2014 and 98% in 2016," Dr Smith said.

"The regulations will affect 11,000 water take consents. Water meters range in cost from \$2800 to \$9600 depending on their size with an estimated total cost of \$40 million. This cost is well justified noting that water contributes more than \$5 billion a year to New Zealand's economy and only a small gain in efficiency of use will offset the cost of metering.

"These pragmatic regulations do not apply to small water takes less than 5 litres per second that make up 39% of consents but only 2% of the volume of water taken. Requiring small takes such as households and stock water to be metered could not be justified nationally.

"The Government is providing \$90,000 to Irrigation New Zealand to develop guidance about water meters, verification and installation to irrigators so as to ensure the smooth implementation of these new regulations. We also want irrigators to be well informed as to how to use this information to improve the efficiency of water use.

[Nick Smith](#)

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## Revised national environmental standards for air quality

On 29 January 2011, Environment Minister Dr Nick Smith announced the outcome of a review of the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins and other Toxics) Regulations 2004 (the air quality standards).

This web page provides information on the results of the review including:

- [the main changes to the regulations](#)
- [next steps](#)
- [support to implement the changes](#)
- [background on the review](#)
- [further information on the review](#)

### The main changes to the regulations

The current regulations, (gazetted in 2004), set threshold concentrations for certain air pollutants including particulate matter less than 10 microns in diameter (PM10). The regulations include restrictions prior to 2013, and a complete ban on granting consent for industry after 2013, if the PM10 standard is not achieved. The air quality standards are intended to help protect public health whilst providing a level playing field for industry.

The main changes being made to these regulations will be to:

- remove existing restrictions in the regulations on industry consents for PM10 discharges
- introduce split target compliance dates depending on the state of air quality in each airshed. Airsheds with more than 10 exceedances a year must meet three exceedances by 1 September 2016, and one exceedance by 1 September 2020. Airsheds with fewer than 10 exceedances a year must meet one exceedance by 1 September 2016

- make provision for the exclusion of exceptional events (e.g., dust storms, volcanic eruptions) from counting as exceedances of the PM10 standard
- require offsets from new industries with significant PM10 discharges in polluted airsheds from September 2012. This means that new industries will only be permitted to discharge PM10 if they reduce emissions from elsewhere so that overall emissions in the airshed stay the same (or improve)
- prohibit new solid-fuel open fires in homes in polluted airsheds from September 2012 (gas open fires will still be permitted)

Whilst the compliance timeframe has been amended to be more realistic, importantly, the value of the PM10 standard itself will not change. This means that bottom-line standards for public health protection remain unaffected.

### Next steps

The amended regulations are expected to be gazetted in March 2011. Table 1 lists new target compliance dates for all airsheds that, based on a current five year average, do not comply with the PM<sub>10</sub> standard.

Councils will need to monitor air quality in these airsheds and plan to meet the national air quality standard by the new target compliance dates. From 1 September 2012, unless compliance is achieved earlier, these airsheds will further be subject to:

- a ban on new solid fuel burning open fires
- a requirement for mandatory offsets for new significant discharges of PM<sub>10</sub>

Table 1 Split Target Compliance Dates for Non-complying Airsheds

Region	Airshed (population)	Average number of exceedances (2005 – 2009)
<b>New target compliance date:</b>		<b>One exceedance by 1 September 2016</b>
Auckland	Auckland (1,156,104)*	5
Waikato	Putaruru (3,510)	2
Waikato	Taupo (18,727)	9
Waikato	Te Kuiti (4,412)	4
<b>New target compliance dates:</b>		<b>Three exceedances by 1 September 2016</b>
		<b>One exceedance by 1 September 2020</b>
Bay of Plenty	Rotorua (44,613)	24
Waikato	Tokoroa (12,928)	16

\* Exceedances due to Australian dust storms (2009) removed.

**For more information on the Air Quality Standard go to:**

<http://www.mfe.govt.nz/laws/standards/air-quality/review/index.html>

[Minister's media release](#)

## Review of the National CDEM Plan

A project is continuing in the undertaking of a review New Zealand's National Civil Defence Emergency Management Plan in accordance with the provisions set out in section 46 of the CDEM Act. The review provides us with an opportunity to refine our current national CDEM planning arrangements and to document them in a way that is clearly understood and endorsed by those agencies responsible for their delivery.

### Project details

The project to review the Plan is being overseen by a Steering Committee comprising representation from the Ministry of Civil Defence & Emergency Management, Department of the Prime Minister and Cabinet, Ministry of Health, Ministry of Social Development, Department of Internal Affairs, New Zealand Police and the New Zealand Fire Service.

The project will include the following phases and general timeframes:

[Download a copy of the review report \(1MB PDF\)](#)

**Government approval process:** Following Chief Executive sign off by relevant agencies on their arrangements, the draft revised Plan will start on the government approval process. This process includes ODESC approval, Ministers approval of the revised Plan to be drafted by Parliamentary Counsels Office and to be publicly consulted on, drafting of the new Plan by Parliamentary Counsels Office, public consultation, consideration of the Plan by the House (90 days), Cabinet approval and recommendation of the revised Plan to the Governor General to be made by Order in Council. (Dec 2010 – June 2011)

**Public consultation:** The government approval process as set out above will include public consultation in accordance with the provisions set out in section 41 of the CDEM Act, which will provide another opportunity for agencies to provide feedback on the revised Plan. (Feb – April 2011)

**Reprint of the Guide:** Any amendments to the Plan will obviously impact on the supporting Guide to the National CDEM Plan (the Guide). Therefore amendments to the Guide will be developed concurrently to those being made to the Plan. This will result in an overall reprint of the Guide to include the new Plan and Guide wording. (July 2011).

For more information contact [Jenna Rogers](#)

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**TBC CIMS books** – Consultation period to be confirmed. The CIMS Steering Committee met in July 2010 to review the draft CIMS books. The Committee agreed that the draft books would be sent to a professional writer (coordinated by FRSITO), who will edit them for consistency and cohesion. Once approved, these will be released for a three-month consultation period with the sector.

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## EMIS Update

### Background

The Ministry of Civil Defence & Emergency Management (MCDEM) Emergency Management Information System (EMIS) project was initiated in response to several reviews and sector requests emphasising the need for an integrated information system. Following an extensive procurement process, E-Sponder - partnered with InterGen - was chosen unanimously as the supplier.

E-Sponder is a web-based solution that is easy to use and configure and is based upon Microsoft SharePoint. The system allows end-to-end EMIS functionality, including standardised reporting, an alerting function and a centralised mapping functionality. An integrated welfare registration function is also being investigated.

The solution will be centrally hosted from the National Crisis Management Centre (NCMC) in Wellington and replicated at a secondary site in Auckland using a dedicated WAN connection. An alternative connection to the internet will be provided for the NCMC in case of failure of the primary fibre connection.

The project will provide an integrated EMIS for MCDEM, Civil Defence Emergency Management Groups and Local Authorities, however there is the possibility of also integrating other E-Sponder licence holders in the future.

[More information](#)

Current update on progress

### **Release 1:**

The first release (Release 1) that includes 65% of the system functionality has now been deployed on the NCMC infrastructure.

#### Functionality delivered in Release 1

Functionality *	Purpose
User Registration	Registration and disabling users and re-setting of passwords
User Provisioning	Setting access permission levels
Create Tasks	Ability to create tasks
Resource Management	Ability to create, view and edit resources
Reports and Info Path forms	This enables up-to-date, real time report of information.
Document Libraries	This allows ECCs/EOCs to import, store, edit and share documents in a range of formats.
Alerts (Broadcast Messaging) **	This allows contact lists to be held by each ECC/EOC and the ability to send alerts to landline and/or mobile phones.

\* Please note: Some functions are not accessible where users are set up as 'Standard Users'

\*\* Alerts (Broadcast Messaging): Please do not use the Broadcast Messaging functionality as there is a cost associated for this. The Alerts function will be made available in the final release.

Release 1 will only be accessible for those CDEM Group and Territorial Authority (TA) representatives that attended the orientation training, with the intent to support further familiarisation with the system. Limited user functionality will be allowed in this release because it is important that changes are not made until full functionality is available and the system is fit for purpose. The representatives that attended training will be set up as 'Standard Users' at this stage.

**Important-please note:** only those persons that attended the EMIS orientation training in Wellington in September will be approved access to the system at this stage and should register as a new EMIS user at [www.emis.govt.nz](http://www.emis.govt.nz) Please do not apply for registration if you did not attend this training.

Release 1 will provide access to the NCMC landing site only. The NCMC site is however identical to the ECC and the EOC landing sites that will be available in Release 2.

#### **Release 2:**

All remaining EMIS components (including the additional Welfare component) has been delivered by E-Sponder and deployed onto on our own (NCMC) hosted User Acceptance Testing (UAT) environment and final testing has begun. We have allowed six weeks for this testing, including resolving and re-testing of defects.

Following completion of testing the system will be installed on the operational hosting environment. Training preparation will then follow, that will involve setting up a large amount of scenario data in the system in order to be able properly apply all functions at all levels (EOC, ECC, NCMC) in training.

#### **Training**

We are also now developing the 'train the trainers/super user' training plans and material. To allow for that and setting up of the training data, this training was scheduled to commence in the first week of April running through to the middle of May. Due to the depth and breadth of EMIS functionality that needs to be covered, and taking on board feedback received from attendees of the first sessions, we will be adjusting the training delivery and format, with 6 sessions of 3 days each (sessions are more likely to be two and a half days but we allow for three full days to support maximum learning opportunity). Each session can accommodate approximately ten participants. Sessions will start at 8:30am and finish at 5:00pm each day.

*Due to the events of the last few weeks, it has been decided to defer the EMIS phase 2 roll out for a period of time. The delay is due to the focus of key CDEM Group and DIA project resources on the Canterbury earthquake.*

*The training scheduled from early April, will no longer go ahead as scheduled and there is no further need for you to provide nominations at this stage.*

*Please be aware that the EMIS project remains a high priority piece of work for us and we are assessing things on a regular basis with a goal to completing the project as soon as things have settled down and resources are available to resume the work. We will be in contact once we have more certainty and are in a position to re-schedule the phase 2 roll out and the EMIS training.*

CDEM Groups will be requested to consider their nominations to the training in view of their experience and knowledge following the first round of training last year. Attendees must be those who will be your super users and who will be delivering training within your CDEM Group. It is essential that attendees are experienced/qualified in CIMS and that they will be efficient in training delivery. An appropriate proficiency with using Microsoft applications is also required. Attendees will be issued with training materials that will cover user and super user manuals, PowerPoint presentations for use in training and take-home lesson plans.

MCDEM will again foot travel costs for attendance of the training. CDEM Groups are therefore requested to select a training session from the dates above and send your two nominations to [Chaz.Harris@dia.govt.nz](mailto:Chaz.Harris@dia.govt.nz) by the end of February. We will endeavour to accommodate preferred dates as far as possible.

<http://emis.projects.intergen.net.nz/default.aspx>